



2011–2012  
**Undergraduate  
Catalog**

**RADFORD UNIVERSITY**

*Radford University Undergraduate Catalog 2011-2012*, Volume 95, is prepared by the Office of the University Registrar and published annually by the Office of University Relations, P.O. Box 6916, 801 Norwood St., Radford University, Radford, Virginia. Students who matriculate at Radford University at the beginning of the 2011-2012 academic year will use the 2010-2011 *Radford University Undergraduate Catalog* for the official description of policies they must follow and requirements they must satisfy in order to graduate. Students may, however, elect to follow the curriculum requirements of a *Radford University Undergraduate Catalog* published subsequent to the year of their matriculation subject to the limitations detailed in the “Graduation Policy” on page 64. Radford University reserves for itself and its departments the right to withdraw or change the announcements in this catalog.

Radford University does not discriminate with regard to race, color, sex, sexual orientation, disability, age, veteran status, national origin, religion, or political affiliation in the administration of its educational programs, activities, admission or employment practices. Inquiries may be directed to the Director of Human Resources at P.O. Box 6889, 704 Clement Street. Telephone: voice (540) 831-5008; hearing impaired (540) 831-5128. (See University Non-Discrimination Policies on p. 10.)

### **Responsibility of the Student**

The student must become familiar with the academic policies, curriculum requirements and associated deadlines posted in this catalog, which is available in both paper and electronic versions. The academic advisor will advise the student on all matters related to his/her program of study and will aid the student in the interpretation of policies whenever necessary. However, it is ultimately the student’s responsibility to be cognizant of and comply with all university policies and procedures and to meet all stated requirements for the degree. It is also the student’s responsibility to frequently monitor campus e-mail and the university web portal, as these electronic means of communication have replaced mass mailings as the university’s most effective and efficient ways to disseminate important information to the campus community. Failure to read official emails and university web portal communications in a timely manner does not relieve students from their responsibility to take appropriate action(s) on the information contained in them. For information about Radford University’s extensive technology services available free to all students, see p. 38 of this catalog.

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# CALENDAR

<b>Fall Semester</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Classes Begin (8 a.m.)	Aug. 29	Aug. 27	Aug. 26	Aug. 25
Thanksgiving Break (No Classes)*	Nov. 19-27	Nov. 17-25	Nov. 16-24	Nov. 15-23
Last Day of Classes	Dec. 9	Dec. 7	Dec. 6	Dec. 5
Final Exams	Dec. 12-15	Dec. 10-13	Dec. 9-12	Dec. 8-11
<b>Spring Semester</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Classes Begin (8 a.m.)	Jan. 17	Jan. 22	Jan. 21	Jan. 20
Spring Break (No Classes)	March 3-11	March 9-17	March 8-16	March 7-15
Last Day of Classes	April 27	May 3	May 2	May 1
Final Exams	April 30-May 3	May 6-9	May 5-8	May 4-7
Commencement	May 5	May 11	May 10	May 9
<b>Maymester</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Classes Begin	May 14	May 20	May 19	May 18
Memorial Day (No Classes)	May 28	May 27	May 26	May 25
Last Day of Classes	June 1	June 7	June 6	June 5
Final Exams	June 2	June 8	June 7	June 6
<b>Summer Session I</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Classes Begin	May 14	May 20	May 19	May 18
Memorial Day (No Classes)	May 28	May 27	May 26	May 25
Last Day of Classes	June 14	June 20	June 19	June 18
Final Exams	June 15-16	June 21-22	June 20-21	June 19-20
<b>Summer Session II</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Classes Begin	June 25	July 1	June 30	June 29
Independence Day Observed (No Classes)	July 4	July 4	July 4	July 3
Last Day of Classes	July 26	Aug. 1	July 30	July 29
Final Exams	July 27-28	Aug. 2-3	July 31-Aug. 1	July 30-31
<b>Summer Session III</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Classes Begin	May 14	May 20	May 19	May 18
Memorial Day (No Classes)	May 28	May 27	May 26	May 25
Independence Day Observed (No Classes)	July 4	July 4	July 4	July 3
Last Day of Classes	July 26	Aug. 1	July 30	July 29
Final Exams	July 27-28	Aug. 2-3	July 31-Aug. 1	July 30-31

Summer Session may include both a Maymester and Summer Session III term. Maymester is a three-week term beginning on the same day as Summer Session I. Summer Session III is an 11-week long term spanning both Summer Session I and Summer Session II. The dates are tentative and subject to change.

\*Thanksgiving Break begins after classes end on the Saturday before Thanksgiving and includes the Sunday after Thanksgiving Day. Residence halls will close at noon on the Saturday before Thanksgiving Day. However, those students who have Saturday classes have until 5 p.m. to vacate the residence halls.

# DEGREES

## UNDERGRADUATE

### COLLEGE OF BUSINESS AND ECONOMICS

#### Accounting, Finance, and Business Law

B.B.A., Accounting

B.B.A., Finance

#### Economics Department

B.B.A., B.S., Economics

#### Management Department

B.B.A., Management

#### Marketing Department

B.B.A., Marketing

### COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT

#### Counseling and Human Development

#### Exercise, Sport and Health

##### Education Department

B.S., Exercise, Sport and Health Education

B.S., Athletic Training

B.S., Nutrition and Dietetics

#### Recreation, Parks and Tourism Department

B.A., B.S., Recreation, Parks and Tourism

#### School of Teacher Education and Leadership

### COLLEGE OF HUMANITIES AND BEHAVIORAL SCIENCES

#### Criminal Justice Department

B.A., B.S., Criminal Justice

#### English Department

B.A., B.S., English

#### Foreign Languages and Literatures Department

B.A., B.S., Foreign Languages and Literatures

#### History Department

B.A., B.S., History

#### Interdisciplinary Programs

B.A., B.S., Interdisciplinary Studies

B.A., B.S., Social Science

#### Philosophy and Religious Studies Department

B.A., B.S., Philosophy and Religious Studies

#### Political Science Department

B.A., B.S., Political Science

#### Psychology Department

B.A., B.S., Psychology

#### Sociology Department

B.A., B.S., Sociology

#### School of Communication

B.A., B.S., Communication

B.A., B.S., Media Studies

### COLLEGE OF SCIENCE AND TECHNOLOGY

#### Biology Department

B.S., Biology

#### Chemistry Department

B.S., Chemistry

#### Information Technology Department

B.S., Computer Science and Technology

B.S., Information Science and Systems

#### Mathematics and Statistics Department

B.A., B.S., Mathematics

#### School of Environmental and Physical Science

B.A., B.S., Anthropological Sciences

B.A., B.S., Geospatial Science

B.A., B.S., Geology

B.A., B.S., Physics

### WALDRON COLLEGE OF HEALTH AND HUMAN SERVICES

#### Communication Sciences and Disorders Department

B.A., B.S., Communication Sciences and Disorders

#### School of Nursing

B.S.N., Nursing

#### School of Social Work

B.S.W., Social Work

**COLLEGE OF VISUAL AND  
PERFORMING ARTS**

**Art Department**

B.A., B.S., B.F.A., Art  
B.S., Art Education

**Interior Design & Fashion Department**

B.F.A., B.S., Design

**Music Department**

B.A., B.S., B.M., Music

**School of Dance and Theatre**

B.A., B.S., B.F.A., Dance  
B.S., Dance Education  
B.A., B.S., Theatre

**GRADUATE**

**Art (M.F.A.)**

Design Thinking  
Studio Thinking

**Business Administration (M.B.A.)**

**Communication Sciences and Disorders  
(M.A., M.S.)**

**Corporate and Professional Communication  
(M.S.)**

**Counseling and Human Development  
(M.S.)**

School Counseling  
Clinical Mental Health Counseling

**Counseling Psychology (Psy.D.)**

**Criminal Justice (M.A., M.S.)**

**Education (M.S.)**

Content Area Studies  
Education  
Others  
Curriculum and Instruction  
Early Childhood Education/  
Early Childhood Special Education

Educational Technology

**Educational Leadership (M.S.)**

**English (M.A., M.S.)**

**Literacy Education (M.S.)**

**Music (M.A., M.S.)**

Music

Music Therapy

**Nursing (D.N.P.)**

Adult - Gerontology Clinical Nurse Specialist

Family Nurse Practitioner

Nurse Midwifery Initiative (with Shenandoah  
University)

Psychiatric Mental Health (with Shenandoah  
University)

**Occupational Therapy (M.O.T.)**

**Physical Therapy (D.P.T.)**

**Psychology (M.A., M.S.)**

Clinical

Experimental (M.A.)

Industrial/Organizational

**School Psychology (Ed.S.)**

**Social Work (M.S.W.)**

**Special Education (M.S.)**

Deaf and Hard of Hearing  
(Hearing Impairment)

General Curriculum

Adapted Curriculum

Severe Disabilities

Visual Impairment

Early Childhood Special Education

# GENERAL INFORMATION

Radford University offers a diverse curriculum of more than 140 undergraduate and graduate degree programs or areas of concentration focused on student achievement and career preparation. A student body of approximately 9,000 studies in seven colleges: Business and Economics, Education and Human Development, Humanities and Behavioral Sciences, Science and Technology, Visual and Performing Arts, Waldron College of Health and Human Services, and the College of Graduate and Professional Studies.

The College of Graduate and Professional Studies offers programs of study at the master's, specialist and doctoral levels. These programs provide advanced and specialized courses of study, supervised practicum experiences and opportunities for research. The university has an outstanding nationally-recruited faculty, approximately 84 percent of whom hold doctorates or other terminal degrees in their teaching fields. While their primary focus is on the teaching and learning process, the faculty also is engaged in significant scholarly, creative, and public service activities.

Radford University is located in the city of Radford (population 15,859), 36 miles southwest of Roanoke, Va., on Route 11 and I-81 in the New River Valley, close to the beautiful Blue Ridge Mountains of Virginia. The university atmosphere is residential. Most students live in university residence halls or in private apartments and houses within walking distance of the campus. The university grounds and facilities are conveniently arranged, beautifully maintained, and effectively designed to meet the academic, personal and extracurricular needs and interests of the students.

## **Mission**

Radford University serves the Commonwealth of Virginia and the nation through a wide range of academic, cultural, human service and research programs. First and foremost, the university emphasizes teaching and learning and

the process of learning in its commitment to the development of mature, responsible and well-educated citizens. RU develops students' creative and critical thinking skills, teaches students to analyze problems and implement solutions, helps students discover their leadership styles and fosters their growth as leaders. Toward this end, the university is student-focused and promotes a sense of caring and meaningful interaction among all members of the university community. Research is viewed as a vital corollary to the teaching and learning transaction as it sustains and enhances the ability to teach effectively. Radford University believes in the dynamics of change and has a strong commitment to continuous review, evaluation and improvement in the curriculum and all aspects of the university, so as to meet the changing needs of society.

## **History**

Radford University was established by the General Assembly as the State Normal and Industrial School for Women in 1910 and has been in continuous session since its 1913 opening. The university became Radford State Teachers College in 1924 and was authorized to award the Bachelor of Arts degree in 1935. In 1944, the university was consolidated with the Virginia Polytechnic Institute as its Women's Division and renamed Radford College. The General Assembly severed the formal affiliation of Radford College with Virginia Tech in 1964, and an autonomous administration was established for Radford College. The college also was authorized to grant the Master of Science degree. In 1972, after almost 60 years as an all-women's college, Radford became coeducational and in 1979 was granted university status by the General Assembly.

Today, Radford University is a coeducational, comprehensive institution with undergraduate and graduate programs. In the last 20 years, enrollment has increased dramatically.

## University Presidents

John Preston McConnell

1911-1937

David Wilbur Peters

1938-1951

Charles Knox Martin Jr.

1952-1972

Chancellor, 1972-1973

President Emeritus, 1973-1987

Donald Newton Dedmon

1972-1994

Douglas Covington

1995-2005

President Emeritus 2005-

Penelope Ward Kyle

2005-



*Radford University President Penelope W. Kyle*

## **The Campus**

The university's 191-acre campus is in a residential section of the city of Radford. Most of the university's 20 administrative, academic and student service buildings and 15 residence halls are located on two large quadrangles in a 76-acre area. Hurlburt Hall, nicknamed "The Bonnie" in honor of former Dean of Students Bonnie Hurlburt, opened in 2006.

Construction has begun on a new building that will house the College of Business and Economics. Due for completion in fall 2012, the building will be a three-story business education center housing 16 classrooms, conference rooms, a behavioral laboratory and a trading room.

Radford's recreation and convocation complex, the Dedmon Center, which was completed in the fall of 1981, is located on a 78-acre tract of land along the New River across U.S. Route 11 (East Main Street) from the main campus. The Dedmon Center Arena, which seats about 3,500, recently underwent a multi-million dollar face lift, making it one of the premiere athletic facilities in the Big South Conference and Mid-Atlantic Region.

Natural forest growth, unusual rock formations, the surrounding hills and the New River provide a scenic setting for the university. Radford is not completely immune to the extremes of summer and winter weather, but the climate is basically temperate, with hot days and cool nights in the summer and cool to cold weather in the winter. Fall and spring months in the Appalachian Highlands bring some of the most enjoyable weather to be found anywhere on the East Coast. Points of interest to the visitor of Radford and the surrounding areas include Claytor Lake and the scenic Blue Ridge Parkway, which is 45 minutes from the campus. Claytor Lake, located off Interstate 81 in Pulaski County, offers picnicking, camping, boating, swimming, and hiking areas.

The Radford University Foundation owns a 376-acre tract of land known as the Selu Conservancy. The conservancy, which borders the Little River and is located about five miles southeast of the campus, was received in two separate donations. John H. Bowles donated the original 185 acres in the fall of 1989; four additional members of the Bowles family donated 191 acres of

adjacent land in the spring of 1991. Through various campus departments, students are able to use this continuous tract in studies of ecology and botany, mapping geological features, as a model in resource management and maintenance formation on actual building techniques as well as cultural and oral histories. In addition to its educational opportunities, the conservancy offers a glimpse of Southwest Virginia's distinctive landscape and resources.

Facilities include conference and meeting facilities which are uniquely designed as part of The Barn and Observatory at Selu. The Barn serves as a research center and observatory. The first floor is a science laboratory and the second floor contains meeting rooms and classrooms. The Selu Observatory, which adjoins The Barn, is designed to resemble a silo. The Farmhouse at Selu is an "authentic replica" of a 1930s homestead. Reservations are required for use of the facilities at Selu Conservancy.

## **Highlander Theme**

The influence of the Scottish immigrants, who settled Southwestern Virginia more than 300 years ago, is visible today in many areas of the university. These people were characterized by "firmness of decision, resourcefulness, ardor in friendship, love of country and a generous enthusiasm." Radford's athletic teams celebrate that heritage by proudly carrying the Highlander name into competition.

## **Accreditation and Memberships**

Radford University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award baccalaureate, masters, educational specialist and doctorate degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call (404) 679-4500 for questions about the accreditation of Radford University.

Individual program accreditation has been granted to the following programs: Undergraduate and Graduate Business Administration – by the Association to Advance Collegiate Schools of Business, International; Teacher Education (all programs) – by the National Council for Accreditation of Teacher Education; Nursing (undergraduate and graduate M.S.N.) – by the

Commission on Collegiate Nursing Education; Computer Science Concentration of Computer Science and Technology – by the Computing Accreditation Commission of the Accreditation Board for Engineering and Technology; Social Work (baccalaureate degree) – by the Council on Social Work Education; Theatre – by the National Association of Schools of Theatre; Recreation, Parks and Tourism – by the Council on Accreditation for Park, Recreation and Leisure Services; Music – by the National Association of Schools of Music; Graduate Program in Speech-Language Pathology – by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association; Dietetics – by the American Dietetics Association; and Counselor Education – by Council for Accreditation of Counseling and Related Educational Programs. Graduate Program in Occupational Therapy has applied for candidacy for accreditation by the Accreditation Council for Occupational Therapy Education and the Graduate Program in Physical Therapy has applied for candidacy for accreditation by the Commission on Accreditation in Physical Therapy Education.

Radford University holds membership in the American Association of State Colleges and Universities, the Virginia Association of Colleges, the American Association of Colleges for Teacher Education, the American Association of Colleges of Nursing, the National Commission on Accrediting, Inc., the Southern Regional Education Board Council of Collegiate Education for Nursing, the Conference of Southern Graduate Schools, the Council of Graduate Schools, the Council of Academic Programs in Communication Sciences and Disorders, the Association for Continuing Higher Education and the North American Association of Summer Sessions.

### **Academic Year**

The university year is divided into two semesters, August to December (fall semester) and January to May (spring semester), and four summer sessions. Students may enter the university at the opening of either semester or summer session. Students who wish to complete their academic careers in three calendar years are encour-

aged to enter in May or June and should plan to attend summer sessions for at least three years.

### **Academic Organization**

The university is composed of seven colleges: College of Business and Economics, College of Education and Human Development, College of Humanities and Behavioral Sciences, College of Science and Technology, Waldron College of Health and Human Services, College of Visual and Performing Arts and the College of Graduate and Professional Studies. The chief administrative officer of each college is its dean, who reports to the Provost.

Each academic department within a given college is responsible for the content and prerequisites of courses offered by the department and specifies the requirements for the department's degree and certification programs. The chairperson is the chief administrative officer at the department level.

### **EXTENDED CAMPUS PROGRAMS**

The university administers undergraduate and graduate programs at the Southwest Virginia Higher Education Center in Abingdon, the partnership program with Virginia Western Community College in Roanoke, the Roanoke Higher Education Center, and at various locations in the service region. Selected classes are also delivered by two-way interactive video and the Internet in support of extended campus programs. For specific information and assistance related to programs at extended campus locations, contact each office coordinator as follows:

Southwest Virginia Higher Education Center	(276) 469-4014
Roanoke Higher Education Center	(540) 767-6190

### **Non-Credit Programs**

Staff members work in close collaboration with university faculty and external groups to design, promote and coordinate a wide array of professional development learning opportunities such as workshops, conferences and non-credit

programs. These programs are offered with open enrollment, based upon the sponsor's program format.

## **NON-DISCRIMINATION POLICIES**

Radford University does not discriminate with regard to race, color, sex, sexual orientation, disability, age, veteran status, national origin, religion, or political affiliation in the administration of its educational programs, activities, admission or employment practices. Inquiries may be directed to the Equal Opportunity/Affirmative Action Officer at 704 Clement Street. Telephone: voice, (540) 831-5008; hearing impaired, (540) 831-5128.

The university has adopted policies to provide for prompt and equitable resolution of discrimination complaints. The Discrimination Complaint Procedure describes the grievance procedure for individuals who have experienced discrimination. The Sexual Harassment Policy further defines sexual discrimination by including examples of sexual harassment and a statement concerning consensual relationships between university employees and students. The Accommodation Procedure for Individuals with Disabilities confirms the university's commitment to providing accessibility to its programs, services and activities for individuals with disabilities who are otherwise qualified and entitled to a reasonable accommodation.

Individuals who believe they may have experienced discrimination, but are uncertain as to whether a complaint is justified or whether they wish to initiate a formal complaint may discuss their concerns confidentially and informally with the director of Human Resources. Students may also consult a staff member at Student Counseling Services or the Office of the Dean of Students.

Only acts of discrimination committed by university employees in connection with their university employment may be reviewed through these policies and procedures. The term "employee" refers to any faculty, staff or any student with a contractual employment agreement, for example, Graduate Teaching Assistants. In all cases of alleged sexual harassment in which the violation is committed by a student, status as a student is adjudicated by the University's student conduct system. Violations of the policy prohibiting sexual harassment may lead to disciplinary actions, including warnings, suspension, or termination of employment or academic status.

Copies of the complete policy statements including procedures for resolving complaints are available in the Dean of Students Office (for complaints against a student only), Student Counseling Services, and Department of Human Resources.

It is the policy of Radford University to admit students whose ability, preparation and character indicate potential for success in the programs of study offered. Radford University does not discriminate in the administration of its educational programs, activities, admission or employment practices.

# ADMISSIONS

Admission to Radford is selective and based on a review of each applicant's academic qualifications. Applicants are encouraged to apply well in advance of the term in which they wish to attend.

The university selects those students who present the strongest qualifications in scholastic achievement, aptitude for achievement in the profession or specific field of study for which the applicant seeks training, and performance in extracurricular activities. Character and potential to contribute to the university community are important criteria as well.

## Admission of Freshmen

Specifically, students are selected on the basis of: (a) their high school records (course of study, grade point average and rank in class); (b) Scholastic Assessment Test I (SATI) results or American College Testing (ACT) exam results; (c) an optional student essay; and (d) evidence of interest and motivation as supplied through related criteria.

To be considered for admission, an incoming freshman should complete a broad selection of course work in high school. Most successful applicants have taken: four units of English; four units in college preparatory mathematics (minimum math requirement for consideration includes the successful completion of Algebra I, Geometry and Algebra II); three to four units in laboratory science, three to four units in a foreign language; and four units in social studies, including American history. Virginia residents are encouraged to complete the Advanced Studies Diploma. It is strongly recommended that pre-nursing students complete units in both biology and chemistry.

Students who, for reasons beyond their control, have not graduated from an accredited high school may be considered for admission provided they pass the High School Equivalency Test administered by the State Board of Education and earn the General Education Development Certificate (GED). Additional material may be requested by the Admissions Office.

Students of very unusual academic ability may be considered for admission after they have completed their junior year of high school. Such students must complete their junior year; take the Scholastic Assessment Test I (SATI) or the American College Testing (ACT) exam; and present documents from their high school and parents supporting early admission.

## College Board Test

The Scholastic Assessment Test I (SATI) given by the College Entrance Examination Board or the American College Testing (ACT) exam is required of all freshman applicants for admission to Radford. This test should be taken in the spring of the junior year in high school and not later than December of the senior year.

Students who score 700 or higher on the writing section of the Scholastic Assessment Test I (SATI) will be exempt from CORE 101, Essentials of Written and Oral Communication. They will receive three hours of credit for this course and will begin core curriculum course work in CORE 102, Advanced Written and Oral Communication.

## Application for Admission

A student desiring to enter Radford University should request an application from the Office of Admissions or apply online at [www.radford.edu](http://www.radford.edu). A student will be notified of action taken on his/her application after all material is received. A complete application includes:

- An official application form completed and returned with a non-refundable application fee.
- An official transcript of high school work completed.
- Official results from the Scholastic Assessment Test I (SATI) or American College Testing Program (ACT).

Students who are offered admission as residence hall students must submit a resident contract and a resident hall and enrollment deposit. Students who are offered admission as commuter students

must submit an off-campus student contract and an enrollment deposit. This deposit will be credited toward university expenses for students who enroll or may be refunded if a written request for withdrawal is received in the Admissions Office by May 1. After this date, the deposit is forfeited.

Students desiring to live on campus may indicate a roommate preference. Except for individuals meeting specific conditions (see p. 35), new freshmen must live on campus.

All students are required to submit a completed RU health immunization record form prior to enrollment.

### **Enrollment and Matriculation**

Students who have (1) been admitted, (2) paid the required fees, and (3) registered for classes are considered enrolled unless the student submits an "Authorization to Cancel Registration" form to the Registrar prior to the first day of classes or a University Withdrawal before the census date. A student's matriculation term is the first term the student enrolls as an undergraduate or as a graduate student. Students must meet the minimum degree requirements in effect in their matriculation term or any term thereafter in which the student is enrolled unless they have been away for two or more consecutive semesters (see the section on readmission). Students continuously enrolled will be permitted to continue with the requirements in effect in their matriculation term whenever possible (i.e., us-

ing the same catalog); however, course offering changes may require students to complete alternative courses.

## **INTERNATIONAL BACCALAUREATE POLICY**

Radford University recognizes the advanced level of academic preparation demonstrated by the International Baccalaureate. Students entering Radford University with an IB Certificate will be awarded three to eight (3-8) semester hours of credit (up to 12 for Foreign Language) for each course completed at the Higher Level with a score of four through seven (4-7).

In addition to the higher level, standard level courses with scores of five (5) or higher will be considered in the awarding of credit for those students who have completed the IB diploma. Students who complete the IB Diploma have the opportunity to earn up to 30 semester credits. Credits granted for individual IB courses or completion of the IB Diploma are shown as transfer hours on the official Radford University transcript and are included in the hours completed toward a degree. IB final course scores are evaluated for transfer credits in the same manner as for college transfer credits. See the section for Transfer Students for additional information.

<b>IB EXAMINATION EQUIVALENCY</b>	<b>MIN. SCORE</b>	<b>RADFORD UNIVERSITY</b>	<b>SEM. HRS.</b>
Group 1 and 2: Languages English A1 or B	4-5	ENGL 101	3
(waives CORE 101)	6-7	ENGL 101, 102	6
(waives CORE 101, 102) English A2	4-7	ENGL 101, 102	6
(waives CORE 101, 102) French A1 or B	4-5	FREN 100, 200	8
	6-7	FREN 100, 200, 210	12
French A2	4-7	FREN 100, 200, 210	12
German A1 or B	4-5	GRMN 100, 200	8
	6-7	GRMN 100, 200, 210	12
German A2	4-7	GRMN 100, 200, 210	12
Latin (Classic Lang)	4-5	LATN 101, 102	8
	6-7	LATN 101, 102, 201	12
Spanish A1 or B	4-5	SPAN 101, 102	6
	6-7	SPAN 101, 102, 201, 202	12
Spanish A2	4-7	SPAN 101, 102, 201, 202	12
All Other Languages A1 or B	4-5		
FORL Elective Credit	6		
	6-7	FORL Elective Credit	12
All Other Languages A2	4-7	FORL Elective Credit	12
Group 3: Individuals and Society			
Business and Management	4-7	MGNT 322, MGNT Elective	6
Economics	4-7	ECON 105, 106	6
Geography	4-7	GEOG 103, GEOG Elective	6
History (America)	4-7	HIST 111, 112	6
History (Europe)	4-7	HIST 101, 102	6
Info Tech in Global Society	5-7	ITEC 112, ITEC 1 Elective	6
(SL w/diploma)			
Philosophy	4-7	PHIL 111, 113	6
Psychology	4-7	PSYC 121, PSYC Elective	6
Soc and Cultural Anthropology	4-7	SOCY 110, SOCY 121	6
Group 4: Experimental Sciences			
Biology	4-7	BIOL 105 and 103 or 104	8
Chemistry	4-7	CHEM 101, 102	8
Environmental Systems	5-7	GEOG Elective	6
(SL w/diploma)			
Physics	4-7	PHYS 111, 112	8
Group 5: Mathematics and Computer Science			
Math Studies	5-7	MATH ELEC, 140 -or- (SL w/diploma)	
		MATH 1 CORE	
Math Methods	5-7	MATH ELEC, 140 -or-	
(SL w/diploma)		MATH 1 CORE	6

Computer Science (HL)	4-7	ITEC 110, 120	6
Computer Science (SL w/diploma)	5-7	ITEC 110 and ITEC Elective	6
<b>Group 6: The Arts</b>			
Visual Arts (HL)	4-7	ART 2 CORE	6
Visual Arts A (SL w/diploma)	5-7	ART 1 Elective	6
Visual Arts B (SL w/diploma)	5-7	ART 2 Elective	6
Music	4-7	MUSC Elective	6
Theatre Arts	4-7	THEA 100, THEA Elective	6

### **ADVANCED PLACEMENT AND COLLEGE LEVEL EXAM PROGRAM**

Radford uses the College Level Examination Program (CLEP) subject exams and College Board Advanced Placement Tests to award graduation credits. The Advanced Placement Tests are given in May of the student's junior or senior year in high school.

Radford University will allow credit for scores on the CLEP subject examinations and Advanced Placement Tests as shown in the table below. Advanced Placement and CLEP scores are evaluated for transfer credits in the same manner as for college transfer credits. See the section for Transfer Students for additional information regarding transfer credits.

<b>CLEP TEST EXAM SUBJECTS</b>	<b>MINIMUM SCORE</b>	<b>RADFORD UNIVERSITY EQUIVALENT</b>	<b>SEM. HRS.</b>
American Literature	50	ENGL 200, 203	6
Analysis and Interpretation of Literature	50	ENGL 200, 203	6
English Literature	50	ENGL 200, 202	6
College Composition	50	ENGL 101, (waives CORE 101)	3
College French	50	FREN 100	4
	59	FREN 100, 200, 210	12
College German	50	GRMN 100	4
	65	GRMN 100, 200, 210	12
College Spanish	50	SPAN 101, 102	6
	63	SPAN 101, 102, 201, 202	12
American Government	50	POSC 120	3
American History I - to 1877	50	HIST 111	3
American History II - from 1865	50	HIST 112	3
General Psychology	50	PSYC 121	3
Human Growth and Development	50	PSYC 230	3
Introduction to Educational Psychology	50	PSYC elective	3
Introductory Macroeconomics	50	ECON 105	3
Introductory Microeconomics	50	ECON 106	3
Introduction to Sociology	50	SOCY 110	3
Western Civilization I - to 1648	50	HIST 101	3
Western Civilization II - 1648 to present	50	HIST 102	3
Calculus with Elementary Functions	50	MATH 151, 152	6
College Algebra	50	MATH 104	3
College Mathematics	50	MATH 1 CORE	3
Trigonometry	50	MATH 140	3
College Algebra/Trigonometry	50	MATH 140	3
General Biology	50	BIOL 105 and 103 or 104	8

General Chemistry	50	CHEM 101, 102	8
Information Systems and Computer Applications	52	ITEC 110	3
Introduction to Management	50	MGNT 221	3
Introductory Accounting	50	ACTG 211, 212	6
Introductory Business Law	51	BLAW 203	3
Introductory Marketing	50	MKTG 340	3
Advanced Placement General Exams			
College Composition	50	ENGL 101 (waives CORE 101)	3
Humanities (CORE)	50	ENGL 200, ART 100 level (CORE)	6
Natural Science	50	Elective	6
Social Sciences and History	50	HIST 100-level, SOCY 100 level (CORE)	6

Radford University will allow credit for scores on the Advanced Placement Tests as follows:

Art Studio (General)	By portfolio assessment		
Art History	3	ART 216	3
Biology	3	BIOL 105 and BIOL 1 CORE	8
Chemistry	4	CHEM 101	4
	5	CHEM 101, 102	8
Environmental Science	4	BIOL 103	4
		or GEOG 140	3
Foreign Lang/Lit – French	3-4	FREN 100, 200	8
	5	FREN 100, 200, 210	12
Foreign Lang/Lit – German	3-4	GRMN 100, 200	8
	5	GRMN 100, 200, 210	12
Foreign Lang/Lit – Latin	3-4	LATN 101, 102	8
	5	LATN 101, 102, 201	12
Foreign Lang/Lit – Spanish	3-4	SPAN 101, 102	6
	5	SPAN 101, 102, 201	9
European History	4	HIST 101, 102	6
American History	4	HIST 111, 112	6
Calculus AB	3	MATH 151	3
Calculus BC	3	MATH 151, 152	6
English Lang/Comp	4	ENGL 101 (waives CORE 101)	3
	5	ENGL 101, 102 (waives CORE 101, 102)	6
English Lit/Comp	4	ENGL 101 (waives CORE 101)	3
	5	ENGL 101 (waives CORE 101) and ENGL 200	6
Geography	3	GEOG 103	3
Physics B	3	PHYS 111, 112	8
Physics C	3	PHYS 221, 222	8
Music Theory	3	MUSC 111, 112	6
Music Listening	3	MUSC 100	3
Computer Science	4	ITEC 120	4
U.S. Government and Politics	3	POSC 120	3
Comparative Government	3	POSC 231	3
Economics	3	ECON 105, 106	6
Psychology	3	PSYC 121	3
Statistics	3	STAT 200	3

## DUAL-ENROLLMENT CREDIT

Students may receive credit for college courses taken to meet high school requirements. These credits may be applied toward a Radford University degree program but the dually enrolled credits are not evaluated automatically for transfer credit based upon high school transcripts. An official college transcript must be provided in order for credit to be awarded. Credits granted for dual enrollments are considered the same as any college transfer credits. See the section for Transfer Students for additional information regarding transfer credits.

## CAMPUS VISITS

Students are encouraged to schedule a visit to Radford University. The Admissions Office is open Monday through Friday from 8 a.m. to 5 p.m. and admission counselors are available during these hours. Tours of the campus are conducted Monday and Friday at 10 a.m., noon and 2 p.m., and Tuesday through Thursday at 10 a.m. and 2 p.m. The office is also open on most Saturday mornings with tours at 10 a.m., 11 a.m. and noon. Please note that office hours and tours are adjusted during the summer months and students should contact the office prior to visiting campus.

## RETENTION AND GRADUATION RATES

Of the full-time, first-time bachelor's degree-seeking students who entered in fall 2009, 76 percent returned for fall 2010. The six-year graduation rate is 57 percent.

## APPLICATION OF SPECIAL STUDENTS

Special students are those students not matriculated in a degree program at Radford University. Special students may attempt up to 24 semester hours of credit in this classification. Once they have attempted 24 semester hours,

they are required to meet with a representative of the Office of Admissions to receive advice and to determine the purpose of continuing in this category. A minimum grade point average of 2.0 is required to continue as a Special Student.

Students meeting one of the following conditions will be considered special students and must file a "Permission to Register" form through the Office of Admissions. Registration opportunities for all special student populations will begin with the start of the third "Phase" of registration. Special population students may register for summer classes during the same time frame as standard degree seeking students.

**Transient Student:** A degree candidate student at another college may enroll in courses at Radford University without submitting official transcripts, but must provide a letter of permission from the "home" institution.

**High School Student:** A high school student who wishes to take a college level course may, upon written approval from the high school and permission by the Admissions Office, take a class at Radford University. Students must submit an official high school transcript.

**Non-degree Student:** A student who wishes to register for undergraduate courses without pursuing a degree may register as a non-degree student. Non-degree seeking students begin registration at the start of the second "Phase" of registration. A student desiring to switch to a degree candidacy status must apply through the Office of Admissions. Students desiring to switch to degree-candidacy are cautioned that hours earned while in the special non-degree student status may or may not apply to a major program, depending on the degree requirements. Students who have been in a degree-seeking status and have been suspended from the university may not apply for readmission as a special non-degree student."

**Senior Citizens:** Under the terms of the Senior Citizens Higher Education Act of 1974 as amended, eligible Virginia residents over 60 years of age with a taxable income of less than \$15,000 are entitled to enroll in courses offered for academic credit on a space available basis without payment of tuition and fees. Tuition, however, may be charged for courses designed exclusively for senior citizen groups.

## **Transfer Students**

Students wishing to transfer to Radford University from an accredited\* college or university should send an application form and the nonrefundable application fee to the Admissions Office. Transcripts from all previous colleges attended must be sent whether or not transfer credit was earned. Concealment of previous attendance at a college or university is justification for cancellation of admission. If the student has been out of school for any extended period of time, other than for school breaks, a letter of activities must be submitted with the application. In addition, if fewer than 30 semester hours have been completed, the student must submit a final high school transcript and SAT 1/ACT results. The high school performance will be considered as part of the admission process and prospective students must meet the freshman admission guidelines. Transfer students must also send their high school transcript if they have not successfully completed a transferable college level math course.

A transfer student must have at least an overall 2.0 (on a 4.0 scale) grade point average on all work attempted to be considered for admission. Radford University does not award +/- grades at the undergraduate level. However, students sometimes transfer to Radford from institutions that do so. Only courses passed with a grade of "C" or higher will be considered for transfer credit. Consequently, grades of "C-" or lower are not accepted. Radford University does not give transfer credit for courses taken as pass/fail. No fewer than 45 semester hours must be taken at Radford University to be eligible for graduation. A minimum of 30 of the last 39 hours of credit required for a degree must be taken at Radford University. In addition, 50 percent of the semester hours required for a major or minor must be taken at Radford University. As a minimum, 120 semester hours are required for graduation.

Students wishing to transfer into the Nursing Program must indicate this major preference on the application for admission. To be considered for upper division nursing, transfer students must also submit a nursing application to the School of Nursing before August 1 for spring entry and before November 15 for fall entry.

Students wishing to transfer into the Design program must indicate this major preference on the application for admission. Following acceptance into Radford University all transfer students applying for admission to the Department of Interior Design & Fashion, must submit a Transfer Student Portfolio Admissions Form and an ID & F Course Equivalency Form.

Transfer credits do not affect Radford University Grade Point Averages (GPA). Transfer credits may be used in determining eligibility or limitations for awards, scholarships, grants, financial aid, admission to academic programs, organization membership, or other uses. When transcripts are provided to agencies outside Radford University, these credits may be used for matters not controlled by Radford University, e.g., scholarships, awards, recognitions, insurance discounts, employment, internships or program eligibilities.

\* Radford University will consider for transfer credit only those credits earned from a regionally accredited college or university as recognized by the U.S. Secretary of Education and the Council of Higher Education (CHEA), as well as the Council on Postsecondary Accreditation (COPA/CORPA) or the Council of Higher Education Accreditation (CHEA).

## **Second Bachelor's Degree Student (First Degree Earned from an Institution Other Than Radford University)**

A student who holds a baccalaureate degree from an accredited U.S. institution and who wishes to take undergraduate work toward a second baccalaureate degree in another major must have official transcripts of work completed from all colleges attended sent to the Admissions Office.

Second bachelor's degree students must complete all requirements for the second degree. Students must complete no fewer than 45 semester hours at Radford University. Students may earn two B.S. degrees, two B.A. degrees, or a B.S. and a B.A. degree simultaneously or separately. The term "degree" refers only to official state-approved degree authorizations and not to programs offered as options under these degrees.

## **Second Bachelor's Degree Student (First Degree Earned at Radford University)**

A student who holds a baccalaureate degree from Radford University and who wishes to take undergraduate courses toward a second baccalaureate degree in another major must complete all requirements for the second degree. Students must complete at least 30 additional credits at Radford University and must meet all requirements of the second degree and major. These hours must be beyond the minimum number of hours required for the first degree.

The GPA from the first degree is frozen and the GPA will start over for the second degree. Courses taken in the second degree cannot affect the GPA of the first degree, and a student cannot earn credit in the second degree for any course credits earned in the first degree. The number of repeats and withdrawals allowed will start over for second-degree students. The student must earn 60 credits beyond the first degree to qualify for graduation with Latin honors.

## **Completing an Additional Major or Minor After Earning an RU Bachelor's Degree**

Students who have already earned a degree from Radford University and who are not enrolled in a graduate program may return and fulfill the requirements for another major and/or minor. These students must apply for readmission and declare the appropriate major/minor on the application form. Students who return to Radford University to complete another major or minor (not a degree) must successfully complete only the requirements for that major/minor. However, students must meet the 2.00 minimum grade point average requirement in courses in which they enroll after their return. Once a student graduates from Radford University with a bachelor's degree, the GPA is frozen and the student's academic record starts over.

It is the student's responsibility to notify the Office of the Registrar of the completion of additional requirements by filling out a Declaration of Completion of Additional Major/Minor form. Once this form has been received, the Office of the Registrar Office will confirm completion and add the additional major and/or minor notation on the student's permanent record (transcript). Students who have completed an additional ma-

ior/minor are not eligible to participate in the commencement ceremony, nor will they receive a second diploma. Students who hold a bachelor's degree from another college or university are not eligible to complete only an additional major/minor at Radford University.

## **State Policy on Transfer**

To encourage the transfer of students from the Virginia Community College System to Radford University, the State Policy on Transfer has been embraced by Radford University, effective fall 1993. A student who transfers to Radford University from a Virginia Community College will be considered to have satisfied Radford's Core Curriculum requirements if any of the following is met:

- the student has by the time of transfer earned an associate degree from a Virginia community college based on a baccalaureate-oriented sequence of courses (i.e., the Associate of Arts, Associate of Science or Associate of Arts and Science); or
- the student is able to earn such a degree by successfully completing at a Virginia community college courses remaining for the associate degree concurrently with the first semester of enrollment at Radford; or
- the student will earn an associate degree as a result of credit earned during his or her first semester of enrollment at Radford, up to a maximum of 10 hours.

Students who do not meet any of these criteria must complete Radford's course-specific Core Curriculum requirements.

The transfer degrees accepted as satisfying the Core Curriculum at Radford University are the Associate of Arts, Associate of Science and the Associate of Arts and Science.

Transfer credit evaluations are performed by the Office of Admissions. Questions concerning transfer credit may be directed to this office.

Community college students completing the Transfer Module will receive credit toward completion of Radford's Core Curriculum requirements. Credits earned with a grade lower than "C" will not transfer to Radford University. Refer to the Radford University Transfer Guide (copies available from the Office of Admissions) for more detailed information concerning the State Policy on Transfer.

# FEES AND FINANCIAL AID

## University Expenses

2011-2012	Per Sem.	Per Academic Yr.
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Tuition and Fees	\$4,160	\$8,320
Room and Board	\$3,637	\$7,274
Commuter: Pays tuition and fees only.		

### Out-of-state Full-time Student (12-18 hrs. per sem.)\*\*

Tuition and Fees	\$9,739	\$19,478
Room and Board	\$3,637	\$7,274

Commuter: Pays tuition and fees only.

All students living in the residence halls must choose from one of the three on-campus meal plans. Actual room and board rates will vary depending on the meal plan selected.

### Part-time Student (1-11 hrs. per sem.)

In-state Tuition and Fees \$347/semester hr.

Out-of-state Tuition and Fees \$811/semester hr.

\*\* A student taking more than 18 credit hours per semester will be charged for the additional hours at the semester hour rate for part-time students.

## Optional Meal Plans for Students

### Living Off Campus\*\*\*

Off-Campus students can choose from the following meal plan options:

15 meals per week plan	\$1,690	\$3,380
19 meals per week plan	\$1,736	\$3,472
Flex plan	\$1,684	\$3,368
Flex Jr. plan	\$851	\$1,702
90 meal plan	\$588	\$1,176
65 meal plan	\$424	\$848

\*\*\*Food Dollars are associated with the 15 and 19 meal plans. For information call the RU Express Office at 831-5054 or 831-6449.

### Typical Budget for an In-state Undergraduate Residential Student

Tuition and Fees	\$4,160	\$8,320
Room and Board	\$3,637	\$7,274
Books and Supplies	\$550	\$1,100
Personal Expenses	\$950	\$1,900

Transportation	\$500	\$1,000
Total Budget	\$9,797	\$19,594

### Typical Budget for an In-state Commuting Student

Tuition and Fees	\$4,160	\$8,320
Books and Supplies	\$550	\$1,100
Living and Personal Expense	\$2,450	\$4,900
Transportation	\$700	\$1,400
Total Budget	\$7,860	\$15,720

### Typical Budget for an Out-of-State Undergraduate Residential Student

Tuition and Fees	\$9,739	\$19,478
Room and Board	\$3,637	\$7,274
Books and Supplies	\$550	\$1,100
Personal Expenses	\$950	\$1,900
Transportation	\$500	\$1,000
Total Budget	\$15,376	\$30,752

A one-time \$275 Matriculation Fee is charged to all new undergraduate students the first semester the student enrolls full time.

Every effort is made not to change fees after they have been published; however, if this should become necessary, all students will be notified prior to the semester in which the increase goes into effect. Refer to the RU webpage for the most up-to-date information: [www.radford.edu](http://www.radford.edu).

For information about graduate fees and expenses, consult the *Radford University Graduate Catalog*.

### In-State Tuition Eligibility

All students who wish to apply for in-state tuition rates must submit the appropriate application form prior to the first day of classes for the term they are seeking in-state status.

The form is available in the Office of Admissions. Section 23-7.4 of the Code of Virginia, the law governing eligibility for in-state tuition, is available through the online catalog of McConnell Library or accessed online at [www.schev.edu](http://www.schev.edu). It is the responsibility of the student to apply for a change in domiciliary status.

### **New Student Enrollment Deposit**

Upon notification by the Office of Admissions that they are tentatively accepted for enrollment, new students must submit an enrollment deposit. Residential students must sign a residential student agreement and pay a \$400 fee. Off campus students must sign an off campus student agreement and pay a \$200 fee. The enrollment deposit is credited to the student's account and is not an extra charge. The deposit is refundable if a written request is received by the Office of Admissions before May 1. After May 1, the deposit is forfeited.

### **Residential Student Agreement**

Currently enrolled students who expect to return to Radford University as residence hall students for the next fall semester are required to sign a residential student agreement and pay a \$200 deposit according to procedures published during the spring semester. The deposit is credited toward charges for room and board for the fall semester and is not an extra charge. The residential student agreement outlines the procedure for partial refund of the room deposit fee for returning students.

## **FEES**

### **Application Fee**

A non-refundable application fee is required of each student (whether commuting or residential) who is applying for enrollment for the first time as an undergraduate student. The fee must be submitted with the completed formal application.

### **Late Fee**

An extra fee of 10 percent of the balance or \$75 (whichever is less) is charged to all students who pay tuition/fees or room/board after the payment deadline.

### **Overload Fee**

An overload fee will be charged for each additional hour over the full-time academic load. A full-class load at Radford is no more than 18 hours per semester. The overload fee is based on the semester-hour charges for part-time students.

### **Summer Session Fees**

The cost for summer sessions will be based on the semester-hour charges for students. Room and board will be available.

### **Applied Music Fee**

An applied music instruction fee is charged at the rate of \$250 per credit per semester. Applied music fees may be waived for level system applied lessons with the approval of the dean of the College of Visual and Performing Arts for students majoring in music, and students registered in Department of Music ensembles and studying in a performance medium relevant to their ensemble participation. Fee waivers do not apply for MUSC 107, 169, 170, 470 and 670.

### **Science Lab Fee**

There is a \$35 science lab fee for students enrolled in astronomy, biology, chemistry, geology, physical science and physics courses that have a lab component.

### **Special Fee for Bowling Classes**

Bowling classes require a special fee of \$45.

### **Responsibility for Payment of Tuition and Fees**

Payment of tuition, fees and other charges owed to Radford University is the responsibility of the student. Billing statements will be emailed to the student at their RU email address given to them by the university.

### **Disciplinary or Criminal Offenses**

Undergraduate, graduate and students seeking readmission who have disciplinary records at their previous institutions or who have a criminal record will be reviewed by the Special Admission Committee.

Non-disclosure or falsification in the reporting of disciplinary and/or criminal offenses on the Readmission Application will result in automatic denial.

## Unpaid Tuition Fees or Fines

Failure to pay tuition and fees could result in administrative withdrawal from the university. In addition, the student's signature on the Application for Admission constitutes an agreement to pay 25 percent attorney's fees, late fees, interest, and other reasonable collection costs necessary for the collection of any amount not paid when due. The university reports past due accounts to a credit-reporting bureau.

## New Student Matriculation Fee

A one-time fee of \$275 has been instituted to support programs and services for entering full-time undergraduate students (new freshman and transfer students). The matriculation fee covers the cost of students attending New Student Orientation, Radford University's summer orientation program, as well as any other orientation and academic advising session provided prior to students entering Radford University. Beyond the orientation programs, the matriculation fee supports extended orientation events sponsored during the opening of school, special speakers, residence hall events, and programs designed to help new students find academic success.

## REFUND OF CHARGES

It is the university's policy to hold the enrolled student liable for charges incurred; therefore, refund checks will be issued in the name of the student.

### Withdrawal from One or More But Not All Courses

A student who withdraws from a class by the census date will be credited the difference in tuition and fees for the reduced number of credit hours, if any. After the census date, there will be no reduction.

### Withdrawal from the University (All Courses)

Fall and Spring Tuition and Fees: Students who withdraw from the University through the census date will not be charged any tuition and fees. For Fall and Spring Semesters only, students who withdraw from **all** courses after the census date will be charged a percentage of

the applicable tuition and fees based on the effective date of the withdrawal as recorded by the Office of the Registrar and the number of weeks past the census date. The census date is specified in the academic calendar for each semester. The proration of fees does not apply to certain fees including matriculation, lab, bowling, music and late fees. The schedule for allocation of tuition and fees between amounts charged and amounts credited is listed below. This schedule is subject to change.

Weeks Past Census Date	Percent Charged	Percent Credited
1	20	80
2	40	60
3	50	50
4	60	40
5	100	0

No credit will be granted after the census date for partial withdrawals, i.e. dropping individual courses. Any refunds owed to the student as a result of withdrawal will first be offset against any other amounts owed to the University.

Students who receive financial aid and withdraw prior to the completion of 61 percent of the enrollment period must repay Title IV funds (i.e. PLUS, Perkins, Subsidized and Unsubsidized Loans, Pell, SEOG, HETAP and CSAP) to their sources. The percentage is determined by dividing the number of days attended by the number of days in the semester.

Summer Session Tuition and Fees: For Summer sessions, students who withdraw from the University through census date will not be charged any tuition and fees. No proration of tuition and fees will be made for students who withdraw after the census date.

Residence Hall and Apartment Rent: For all semesters, students who withdraw through the census date will be charged a flat fee of \$200 (\$100 for summer sessions). No proration of rent will be made for students who withdraw after the census date.

Meal Plans: For all semesters, students who withdraw through the census date will be charged a flat fee of \$200 (\$100 for summer sessions). After census date and through the last day to withdraw and receive a grade of "W," refunds will be prorated based on the number of

weeks or actual usage, as applicable. No proration will be made after the last day to withdraw and receive a grade of “W” for that semester.

### **Return of Title IV Federal Financial Aid**

This policy governs all federal grant and loan programs, but does not include the Federal Work-Study program.

The law assumes that a student “earns” approved (verified) federal financial aid awards in proportion to the number of days in the term prior to the student’s complete withdrawal. If a student completely withdraws from school during a term, the school must calculate, according to a specific formula, the portion of the total scheduled financial assistance that the student has earned and is therefore entitled to retain, until the time that the student withdrew. If a student receives (or the university receives on the student’s behalf) more assistance than he/she earns, the unearned funds must be returned to the Department of Education or to the Federal Direct or parent’s Federal PLUS loan lenders. If a student’s charges are less than the amount earned, and a refund is due, the student may be able to receive those additional funds. Students who have not completed the verification process are ineligible to receive any financial aid.

The portion of the federal grants and loans that the student is entitled to receive is calculated on a percentage basis by comparing the total number of days in the semester to the number of days that the student completed before he/she withdrew. For example, if a student completes 30 percent of the semester, he/she earns 30 percent of the approved federal aid that he/she was originally scheduled to receive. This means that 70 percent of the student’s scheduled or disbursed aid remains unearned and must be returned to the Federal Programs. This policy governs the earned and unearned portions of the student’s Federal Title IV Financial Aid only. It determines how much, if any, the student and/or the school may need to return. This policy does not affect the student’s charges. The University’s Withdrawal Policy (stated above) will be used to determine the reduction, if any, in the student’s tuition and fee or room and board charges. The student is responsible for paying any outstanding charges to the university.

The student’s official withdrawal date will be determined by the university as 1) the date the student began the university’s withdrawal process (the date that the student officially notified the advising center of his/her intent to withdraw); 2) the midpoint of the semester if the student withdraws without notifying the university; or 3) the student’s last date of attendance at an academically-related activity as documented by the university.

If it is determined that a portion of the financial aid received on the student’s behalf is unearned, the university shares with the student the responsibility of returning those funds.

Any grant funds that the student is required to return to the Federal Programs are considered an overpayment. The student must either repay the amount in full or make satisfactory payment arrangements with the Department of Education to repay the amount. If the student fails to repay, or make payment arrangements, to repay an overpayment the student will lose his/her eligibility to receive future federal financial aid at any institution.

### **Refund Policy for State and Institutional Aid**

The policy will affect students who completely withdraw from all classes in a semester and who are receiving state or institutional financial assistance. It does not apply to students who withdraw from some, but not all classes within a semester. All financial programs are covered under this policy. State Student Loan, Last Dollar and VTG MUST be reduced to tuition costs only before any further refund is considered. The portion of the RU Grant and VGAP funds that the student is entitled to receive will be calculated on a percentage basis by comparing the total number of days in the semester to the total number of days that the student completed before he/she withdrew. Funds from the Virginia Teaching Scholarship Loan Program must be returned to this program in full.

### **Enrollment Deposit Refunds**

Students who are offered admission as a residential student must submit a \$400 housing and enrollment deposit. Commuter students are required to submit a \$200 enrollment deposit. Students who choose not to enroll can receive

a refund of the enrollment deposit upon request before May 1. After that date, the deposit is forfeited.

- turned from the bank and remains unpaid.
- A service charge will be applied to all checks returned from the bank for any reason.

## **FINANCIAL SERVICES**

### **Banking Facilities**

Three banks are located near the Radford University campus: SunTrust Bank, Wells Fargo and BB&T. In addition, the city is serviced by Stellar One, Bank of Floyd, Bank of America, and National Bank. SunTrust Bank, Wachovia, and Stellar One operate automatic teller machines on campus.

Checks presented by Radford University students are accepted by the university subject to the following limitations and policies:

The university accepts checks for tuition/fees, room and board, the exact amount of goods or services and fines owed to the university. The Post Office accepts checks and RU Express cards for the amount of purchase.

- The university bookstore will cash checks between \$5 and \$25. A service charge of 50 cents will be assessed for each check cashed.
- Checks written directly to a student by the Commonwealth of Virginia or by Radford University may be cashed at the bank indicated on the check or at a bank where the student has an account.
- A student who knowingly writes a check with insufficient funds in his or her checking account may be charged with an honor code violation and may be prosecuted under the criminal law of the Commonwealth of Virginia.
- If a check written for tuition/fees or room and board is returned from the bank for any reasons, future tuition/fee or room and board payments may be required to be made with cash, money order, certified check or cashier's check, and the student may be administratively withdrawn from the university. In addition, the student will be assessed a \$25 service charge and a late fee of either 10 percent of the amount of check or \$75 (whichever is less) if applicable.
- A student may be blocked from registration and transcripts may be held if a check is re-

## **FINANCIAL AID**

Helping qualified students who would be unable to attend the university because of a lack of funds is the aim of Radford's financial aid program. During the 2010-2011 academic year, Radford provided some form of aid for approximately 72 percent of its students. Primary responsibility for funds for education belongs to parents and students. The difference between the family contribution and the cost of attending the university determines the financial need of the student. The criteria used for selecting student aid recipients involve both the computed need and the academic progress standing of the individual student. Top consideration for awarding financial aid dollars will be given to those who demonstrate the greatest need, who have valid applications submitted by the deadline, and who are admitted to Radford by the deadline. Should funds not be available to meet all these needs, the aid will be prioritized by need among eligible applicants.

After a student has been admitted to Radford and has demonstrated financial need, the university tries to meet that need by offering a financial aid package, which may consist of a scholarship, grant, loan and/or on-campus job.

In addition to awards based on demonstrated financial need, scholarships based on leadership, character and academic achievements are offered at Radford. Sources of financial aid include loans and grants from the federal and state governments, as well as numerous private funds established through the Radford University Foundation. For additional information, refer to the RU Financial Aid website: <http://www.radford.edu/content/financial-aid/home.html>

## **APPLYING FOR FINANCIAL AID**

To determine need in a consistent way for aid applicants, Radford suggests that parents or independent students seeking financial aid submit a completed Free Application for Federal

Student Aid (FAFSA) by February 15. Forms and further information about the needs analysis system may be obtained from high school guidance counselors, the Financial Aid Office, or the Radford University Financial Aid website at: <http://finaid.asp.radford.edu/>.

Currently enrolled students may obtain FAFSA worksheets from the university's Financial Aid Office or complete the FAFSA through the web at: <http://fafsa.ed.gov/>.

The FAFSA for renewal students also should be filed by February 15.

Radford awards financial aid separately for the academic year and the summer terms.

Undergraduate students who plan to be enrolled during the summer must submit a separate university summer Financial Aid Application. The Free Application for Federal Student Aid form, however, needs to be completed only once annually and is effective for both the academic year and the following summer sessions.

### **Disbursement of Financial Aid**

All types of financial aid are credited to the student's account at the beginning of each term with the exception of work-study and some loans. These financial aid funds must be used first to pay the required university charges outstanding at that time. All awards will be disbursed equally over the course of the two academic semesters unless the student applies for only one term. Financial assistance awarded for the summer terms will be indicated for the specific term.

Radford University participates in Electronic Funds Transfer (EFT) of William D. Ford Direct Lending Education Loan funds.

This option of disbursing loan proceeds is an additional service that the university offers its students. Financial aid applicants will receive information with their award package regarding this service.

### **Refund of Excess Financial Aid**

If a student's Federal and/or Alternative Loan funds are received electronically he/she may have the excess aid deposited into his/her checking or savings account. If this option is not chosen, a refund check will be mailed to the student's mailing address.

If PLUS Loan funds that are received electronically remain as excess on a student's

account, with parent permission, the balance can be electronically deposited into the student's checking or savings account. If this option is not chosen, a refund check will be mailed to the student's mailing address. If the parent borrower does not authorize the refund of excess PLUS funds to the student, a refund check will be mailed to the parent borrower.

### **Satisfactory Progress**

Financial aid awards are conditional on students maintaining satisfactory progress in their course of study according to academic and progress requirements. Satisfactory progress for financial aid purposes requires that the student meet the university's progress requirements and maintains progress toward a degree. Additional progress requirements exist for the state financial aid programs. For financial aid recipients, the policy can be obtained from the RU Financial Aid Office or from the RU Financial Aid website: <http://www.radford.edu/content/financial-aid/home.html/>

The academic progress of students who fail to meet the minimum standards will be reviewed each semester of the school year. At that time financial assistance may be awarded, if available, to those students who improve satisfactorily.

### **Class Standing**

Students who wish to receive funds from the Federal Direct Lending Program or the Federal Parent Direct Lending for Undergraduate Students (PLUS) program will have their class standings determined at the beginning of the semester in which they are applying for financial assistance. Students with 26 semester hours will be classified as sophomores, with 56 semester hours as juniors and with 86 semester hours as seniors.

### **Rights and Responsibilities of Student Recipients**

As a recipient of state or federal aid, each student has certain rights and responsibilities. Knowing what they are will place the student in a better position to make decisions about educational goals and how they best can be achieved. If at any time there are questions about financial aid, students should come to the Financial Aid Office where there is additional information available concerning their legal rights and responsibilities.

The student has a right to know:

- the total cost of attending Radford University for an academic year, including tuition and fees and estimated costs of personal expenses, books and transportation;
- the due dates for mandatory fees and the payment procedures for those receiving financial assistance;
- the deadline for submitting applications;
- how the financial need was determined;
- how much of the estimated financial need has been met;
- the types of financial aid offered by Radford University and the terms of those types of aid which were received;
- how satisfactory academic progress is measured; and
- the university refund policy for students who withdraw.

The student is responsible:

- for submitting honest and accurate information concerning enrollment and family financial circumstances (full-time status is defined as 12 semester hours for undergraduate students unless indicated otherwise);
- for adhering to all agreements signed in the course of applying for and receiving financial assistance;
- for reporting a change to less than full-time enrollment during the award period;
- for reporting promptly to the Financial Aid Office the receipt of scholarships, grants or loans awarded by organizations or agencies other than Radford University;
- for becoming familiar with the deadlines for application, the terms of financial aid received and refund policies for students who withdraw;
- for knowing the loan repayment responsibilities and abiding by the terms of the promissory note; and
- if awarded student employment, for performing the job in a satisfactory manner. An unsatisfactory performance may result in removal from the work program.

## **SCHOLARSHIPS AND GRANTS**

### **Federal Pell Grants**

Authorized by the 1972 Higher Education Act, this program operates under the assumption that needy students are entitled to a certain amount of federal assistance while pursuing an undergraduate degree. The eligibility for an award is determined by a formula consistently applied to all applicants, the cost of attending the institution and the student's part-time or full-time enrollment status. For the 2010-2011 academic year, grants ranged from \$555 to \$5,550. Application can be made by filing a Free Application for Federal Student Aid (FAFSA) Form.

### **Supplemental Education Opportunity Grants**

These grants, awarded under a federal aid program, are available to any student who has exceptional financial need and is progressing satisfactorily toward a degree. The grants range from \$200 to \$4,000 per year with no limit placed on the maximum cumulative award.

### **Federal Teach Grant**

The Federal Teach Grant program is a federal grant program that provides grants of up to \$4,000 per year to students (regardless of income or need) who intend to teach in a public or private elementary or secondary school that serves students from low income families in a high need teaching field. Failure to complete the required teaching service requirements or an eligible program/major/concentration cause the grant to become a Federal Direct Unsubsidized loan.

The obligation must be completed within eight years of completing your program. Review the service agreement for details. For all requirements, review the RU Financial Aid website at <http://www.radford.edu/content/financial-aid/home.html/>

### **Virginia College Scholarship Assistance Program**

The College Scholarship Assistance Program (CSAP) is a need-based program of grants to students enrolled in Virginia colleges and universities. Virginia resident undergraduates who

are enrolled on at least a half-time basis are eligible for consideration. Priority is given to full-time enrolled students. Awards range from \$400 to \$2,000 per year.

### **Commonwealth Award**

A Commonwealth Award scholarship recipient must be a legal resident of Virginia and demonstrate financial need. The value of these scholarships may vary according to the student's need, not to exceed the cost of tuition and required fees. You can receive between \$1,000 and \$6,176 a year, depending on when you apply, your level of need, and Radford University's funding level. You cannot receive both the Commonwealth Award and VGAP at the same time.

### **Virginia Guaranteed Assistance Program**

The Virginia Guaranteed Assistance Program (VGAP) is a state-funded scholarship program restricted to financially needy Virginians who graduated from a Virginia high school with a 2.5 or higher grade point average. Awards may not exceed the costs of tuition and fees, and a standard books and supplies allowance. Awards during the 2011-2012 academic year ranged from \$1,000 - \$8,700 per student. Recipients of this grant must maintain continuous full-time enrollment and earn full-time credit hours to remain eligible. Students may not receive both a VGAP award and a Commonwealth award. VPAP renewals must also maintain a 2.0 cumulative GPA.

### **Virginia Transfer Grant**

The Virginia Transfer Grant Program (VTG) is a state-funded scholarship program restricted to financially needy (Expected Family Contribution (EFC) less than \$8,000) Virginians who graduated with an associate degree from a Virginia Community College. In addition, they must have entered a public two-year college as of fall 2007 as a first-time freshman, be enrolled full-time into a Virginia four-year public or private nonprofit college or university by the fall following completion of the associate degree. See details by going to <http://finaid.asp.radford.edu/vtg.html>.

### **Radford University Foundation, Inc. Scholarships**

Merit and need-based academic and athletic scholarships are awarded annually to both

incoming and currently enrolled students. These scholarships have been made possible through contributions from alumni, students, parents, faculty, staff, businesses, foundations, corporations and friends of the university.

The Presidential Scholars is a prestigious program which funds tuition and room and board fees for 75 outstanding incoming freshmen annually. Additional partial scholarships are also awarded to new freshmen and transfer students. The full scholarships, along with a number of partial scholarships, are renewable assuming the recipients meet certain conditions, such as maintaining a specific grade point average.

In addition to scholarships for incoming freshmen, approximately 500 scholarships are awarded to returning upper-class students through the RU Foundation. Many of these scholarships contain conditions for receiving the award, such as declaring a particular major, residing in a particular geographic region, being involved in extracurricular activities, or simply demonstrating financial need. The RU Foundation receives hundreds of applications for scholarships from a pool of deserving and well-qualified individuals. Every year, new scholarships are created to meet the ever growing need for financial assistance and meritorious recognition.

Students who wish to apply for freshman scholarships should submit a complete application for admission to Radford University's Office of Admissions before December 15 of the academic year prior to attending the university. For upper-class scholarships, applicants may complete the scholarship application on the web during the competition time period. Information is available on the RU Financial Aid website at <http://www.radford.edu/content/financial-aid/home.html/>

For more information on scholarships for incoming freshmen, contact the Office of Admissions, Radford University, Martin Hall, P.O. Box 6903, Radford, VA 24142, (540) 831-5371.

## **LOANS**

### **Federal Perkins Loan**

The Perkins Loan is a need-based loan that is funded by the federal government but is administered directly by Radford University. Undergraduate students receive loans under

this program of up to \$5,500 annually and up to \$27,500 for their total undergraduate study. Students begin paying back these loans nine months after they either complete their education or leave school. No interest is charged until repayment begins, and then a five percent charge is applied to the unpaid balance.

### **Federal Direct Lending Student Loan**

The Federal Direct Lending Student Loan Program enables both dependent and independent students to borrow. All students will be required to pay up to a three percent one-time origination fee for each loan. In addition, guarantee agencies may charge an extra default reduction fee of one percent on each loan. The interest rate for new borrowers is fixed at 6.8 percent. The interest rate for subsidized Federal Direct Loans is subsidized by the federal government until six months after the student graduates or leaves school, when repayment begins. For unsubsidized Federal Direct Loans, the borrower makes interest payments or capitalizes interest.

The Federal Direct Loan Program is a long-term repayable educational loan that offers low interest rates. It is the Department of Education's major form of self-help aid. Repayment is deferred until you graduate, withdraw, or drop below half-time status (does not include summer sessions.) This loan program offers funds to students regardless of family income level. Federal Direct Loans are either subsidized or unsubsidized. The results of the Free Application for Federal Student Aid (FAFSA) determine which type of loan you are eligible for.

For detailed information regarding this loan program, please visit the following website: <http://www.ed.gov/offices/OSFAP/DirectLoan/student.html>. You can keep track of your loan accumulations by using the federal NSLDS system.

Dependent undergraduate students may borrow as much as \$5,500 for the first year (with at least \$2,000 of this amount in unsubsidized Federal Direct Loan), \$6,500 for the second year (with at least \$2,000 of this amount in unsubsidized Federal Direct Loan) and \$7,500 annually for remaining undergraduate years (with at least \$2,000 of this amount in unsubsidized Federal Direct Loan), up to a total of \$31,000 (with at least \$8,000 of this amount in unsubsidized Federal Direct Loan.)

Independent undergraduate students may borrow as much as \$9,500 for the first year (with at least \$6,000 of this amount in unsubsidized Federal Direct Loan), \$10,500 for the second year (with at least \$6,000 of this amount in unsubsidized Federal Direct Loan), and \$12,500 annually for remaining years (with at least \$7,000 of this amount in unsubsidized Federal Direct Loan). The total Federal Direct Loan debt the student can have outstanding as an independent undergraduate is \$57,500.

For periods of undergraduate study that are less than an academic year, the amounts the student may borrow will be less than those above.

All students applying for Federal Direct Loans must complete the Free Application for Federal Student Aid (FAFSA). Those students not eligible for subsidized Federal Direct Loans or partially subsidized Federal Direct Loans will be eligible for unsubsidized Federal Direct Loans. Federal Direct Student Loans are made in multiple disbursements. Therefore, half of the proceeds of the loan will be available in August and January for the payment of semester fees.

### **Federal PLUS Loan Program**

The Parent Loan Program (PLUS) is available for parents of dependent students. The interest rate is fixed at 7.9 percent. There is no federal interest subsidy or maximum eligible income. Repayment begins 60 days after disbursement of the loan, unless the parent works with the lender to defer payment. Parents may borrow as much as the cost of education per year. Parents applying for the PLUS loan must complete the Free Application for Federal Student Aid (FAFSA).

### **State Student Loan Fund**

A student loan fund is a need-based loan available to Virginia students through previous appropriations made by the Virginia General Assembly. A student may borrow up to the cost of tuition and required fees per academic session with repayment beginning four months after withdrawal or graduation from college. All notes covering loans must be endorsed by parents or other responsible Virginia adults. The loan bears a three percent interest rate.

## **Nursing Student Loan**

This need-based federal program provides long-term, low-interest loans for nursing students. A student may borrow up to \$3,000 for an academic year. Third and fourth year nursing students may potentially borrow up to \$5,200 per year. An interest rate of five percent annually begins to accrue nine months after graduation. The student must be admitted into the Nursing Program to be eligible.

## **WORK PROGRAMS**

### **Federal Work-Study Program**

This is a federal program that provides part-time jobs for students with financial need as determined by the Free Application for Federal Student Aid (FAFSA). A student is awarded work for a specific number of hours per week. Students must contact supervisors listed on the RU Financial Aid website to secure a work position. An undergraduate student is paid the current federal minimum wage and may earn up to \$1,305 per semester or a maximum of \$2,610 for the academic year.

Students awarded a work award may use the university website to locate positions on campus (<http://finaid.asp.radford.edu/work.html>). Students are paid once each month for the preceding pay period.

### **Community Service**

Students may also apply for placement in one of our Community Service positions. For additional information, please contact Jerry Lester in the Financial Aid Office.

### **University Work Scholarship Program**

This program provides a limited number of part-time employment opportunities for students who do not qualify for the work-study program. Any full-time student with satisfactory grades is eligible for employment. The number of hours worked and hourly earnings are identical to those in the Federal Work-Study Program.

Under an agreement with the U.S. Department of Education, the institution is obligated to employ qualified financially eligible students before offering employment to others.

## **Residence Hall Assistants**

Each candidate must have a personal interview for the Resident Assistant (R.A.) position. This position is available to undergraduate students. Additional information, application forms and specific job descriptions are available from the Office of Residential Life, P.O. Box 6897, Radford University, Radford, VA 24142.

## **ALTERNATIVE FINANCING**

**Nelnet Automatic Payment Plan:** In a continuing effort to assist with the payment of educational expenses, Radford University offers the AMPP Monthly Payment Plan as an alternative to standard payment arrangements.

Simple steps to enroll in the Payment Plan:

- Have student login to the MyRU portal;
- Click the My Accounts tab at the top;
- In the center of the page under Student Accounts click on Make a Payment by monthly payments.
- You will enter the QuikPay site where you will need to click "Make Payment" on the left side of the page.
- Click on "Payment Plan" to enroll in the E-Cashier Automatic Payment Plan (a new window will open).

### **Senior Citizens Higher Education Act of 1974**

The Commonwealth of Virginia allows senior citizens who meet certain requirements to take courses at state colleges or universities free-of-charge. To be eligible, persons must have reached 60 years of age before the beginning of the semester in which they wish to enroll and must have had legal domicile in Virginia for one year prior to the semester in which they plan to enroll.

Senior citizens may register for and enroll in courses as full-time or part-time students for academic credit if their federal taxable income does not exceed \$15,000 for the year preceding the year in which enrollment is sought. Senior citizens may register for and audit courses for academic credit regardless of their federal taxable income. In all cases, senior citizens are entitled to register for courses only after all tuition-paying students have been accommodated. Applications are available in the Office

of Graduate and Professional Studies and the Admissions Office.

**Virginia War/Public Service Orphans Education Program**

(Section 23-7.1, Code of Virginia) provides for tuition-free educational benefits at any state-supported college or university for children of permanently and totally disabled veterans or for children orphaned by an act of war. Both tuition and fees are covered by this program.

Eligibility is determined by the Director of the Division of War Veterans Claims upon submission of an application. To be eligible for assistance, the applicant's parent must have been a resident of Virginia upon entry into the service; the applicant's parent must have been a resident of Virginia for at least 10 consecutive years prior to the date of the application; the applicant must be between 16-25 years of age; and the applicant must verify admission to a state college or university. Eligible applicants are entitled to a maximum of 48 months of tuition assistance and must be progressing toward a clearly defined educational objective.

In addition, an amendment to Section 23-7.1 now allows for tuition-free educational benefits for orphans and spouses of certain law enforcement officers, correctional and jail personnel, sheriffs, deputy sheriffs, fire fighters, members of rescue squads and alcoholic beverage control agents who have been killed in the line of duty while serving or living in the Commonwealth of Virginia.

Eligibility for this benefit is determined by the chief administrative officer of the Alcoholic Beverage Control Board, emergency medical services agency, law-enforcement agency, Superintendent of the State Police or other appropriate agency.

If this is a first-time enrollment, contact the VA Office in Roanoke.

**Army ROTC Department**

The Radford University ROTC department has two- and three-year scholarships available on a competitive basis. These scholarships cover tuition and fees and provide book allowance of \$450 paid each semester with a subsistence allowance of \$250 up to \$2,000 per year. Contact:

U.S. Army ROTC Department  
P.O. Box 6947  
Radford, VA 24142  
or call (540) 831-5288/5209  
Email [arotc@radford.edu](mailto:arotc@radford.edu)



*Movie Night on Muse Lawn*

# CAMPUS LIFE

Numerous cultural and educational activities are offered each year. Music, dance and theatre presentations enable students to attend, as well as participate in, various productions during the year. A full schedule of art exhibits is arranged and presented by the Radford University Art Museum. An all-campus student calendar at [www.radford.edu/~studentcalendar](http://www.radford.edu/~studentcalendar) provides students with up-to-date information on the upcoming major programs, theater, music and/or meeting times for clubs or organizations they are interested in.

## DEPARTMENT OF STUDENT ACTIVITIES

Students are encouraged to develop social, cultural and creative interests and awareness by actively participating in all aspects of campus life.

The Department of Student Activities provides students with diverse out-of-the-classroom experiences including intramurals, aerobics, sports clubs, RU Outdoors programs, Hurlburt Student Center Game Room, Radford Student Programming and Campus Events (R-SPaCE), Greek Life, 220+ clubs and organizations, student media, a leadership library and training, LEAD 110 and student employment opportunities. For further information check out the website at [www.radford.edu/stuact](http://www.radford.edu/stuact), call (540) 831-5332 or stop by the main office Room 226 in the Hurlburt Student Center.

## RECREATIONAL ACTIVITIES

The Dedmon Center, an athletic and convocation complex located across U.S. Route 11 (East Main Street) from the main campus, houses an arena with an eight-lane swimming pool, and a 1/6 mile jogging track which are available for student use during scheduled hours.

Outdoor facilities at the center include a jogging trail, 12 tennis courts, and the Patrick D. Cupp Memorial Stadium.

The stadium houses an eight-lane track and field surface, a soccer field, locker rooms, a press box, coaches' offices and a concession area.

The Dedmon Center complex also has areas for other field sports including baseball, lacrosse, softball and club sports football and rugby. Other outside activities include field hockey, cross country, and golf.

Peters Hall, located in the heart of the main campus, provides students the opportunities to take part in aerobics classes, indoor intramurals, a climbing wall, fitness center, and open gym times.

Muse Hall Fitness Center located on the main level offers a variety of cardio workouts with treadmills, ellipticals, bikes and stair-climbers and strength training with Nautilus single station machines.

Muse Weight Room located off of parking lot B offers students free weight lifting opportunities with dumbbells, squat racks and benches. Leg machines, cable crossover, bike, rowing machine and stair-climber provide the equipment for a full body workout.

Hurlburt Student Center includes a welcome and information center, student lounges, a computer lounge, a game room with bowling and billiards, a food court, meeting rooms, a 250-seat auditorium, Department of Student Activities Offices, Greek Life Office, Student Government Office, R-SPaCE Programming Office, the Student Organizational Assistance Resources Office and more.

## Intercollegiate

Radford University, a NCAA Division I member, currently participates in 19 varsity sports, 11 for women and eight for men. The sports include: men's baseball, men's and women's basketball, men's and women's cross country, women's field hockey, men's and women's golf, women's swimming and diving, men's and women's soccer, men's and women's outdoor track, men's and women's indoor track, women's softball, men's and women's tennis and women's volleyball. The university offers athletic scholarship aid in all sports.

## **Sports Clubs**

Sports Clubs highlight the leadership skills and athletic talents of the RU student body. The Sports Club Program is designed to serve individual interests in different sports and recreation activities. The activities that the club sport teams provide range from very competitive to recreational and instructional. Currently there are 21 chartered sports clubs at RU. They include ice hockey, men's and women's lacrosse, men's rugby, equestrian team, men's and women's ultimate frisbee, men's and women's soccer, men's and women's volleyball, women's softball, men's baseball, swimming, football skeet and trap, billiards, wrestling, fishing, women's basketball and bowling.

## **Intramurals**

Intramurals are for everyone. A variety of individual and team sports/activities are planned, ranging from league competition to more informal tournaments and one-day events that are intended to appeal to the varied interests of the RU community. Past intramurals have included dodge ball, sand volleyball, ping pong, flag football, softball, wallyball, billiards, soccer, basketball, frisbee, homerun derby and many card tournaments. For more information go to the Campus Recreation Office in the Hurlburt Student Center Room 121.

## **RU Outdoors**

RU Outdoors is the adventure programming component of campus recreation that provides outdoor adventures, promotes healthy self-discovery, emphasizes respect and awareness for the natural resources and unlocks student leadership potential. Trips include hiking, backpacking, white water rafting, scuba diving, paddling, caving, mountain biking and climbing. All skill levels are accepted. For a low fee, instruction, technical equipment and transportation are provided. Students can even rent out equipment for their own outdoor adventure. The Campus Recreation Office is located in the Hurlburt Student Center, Room 121.

## **STUDENT LEADERSHIP PROGRAM (The LEAD Scholar Program)**

The Radford University Student Leadership Program, the LEAD Scholar Program: Leadership through Experience, Academics and Development, is a comprehensive program jointly administered by the Divisions of Academic and Student Affairs. The program is designed to provide students with knowledge, skills and experiences focused on leadership; to recognize students' leadership activities; to help the university develop a pool of trained and competent student leaders; and to prepare individuals to be leaders in their communities after they graduate. Each part of the program includes specific requirements and learning outcomes. In the 12-hour academic component, students will systematically explore and reflect upon leadership skills as they learn the conceptual tools that support the exercise of leadership in a variety of settings. Students will first enroll in LEAD 110: Emerging Leadership. (See course description that follows). They will then select nine additional hours from existing courses having leadership content (e.g., theories, history or philosophy of leadership, the study of leaders within a discipline, values and ethics of leaders).

In the experiential component, students will be challenged to connect leadership to practice. They will reflect upon their experiences through attending leadership workshops and conferences and through experiential learning (service learning and internship experiences).

Finally, in the developmental component, students will apply the knowledge and skills they acquire by taking on leadership roles. Through accepting leadership responsibilities on or off campus, they will gain first-hand experiences while developing and fine-tuning their leadership skills. On-campus leadership opportunities include service as New Student Orientation-Quest Assistants, Resident Assistants, UNIV 100 Peer Instructors, and many others.

Upon their graduation, students who complete all the LEAD Scholar Program requirements will receive certification of their accomplishments on their academic transcripts. For

additional information about the LEAD Scholar Program, contact the Department of Student Activities, (540) 831-5332.

### **LEAD 110. Emerging Leadership. (3)**

*Prerequisite: Minimum of 2.0 cumulative GPA*

The course is designed to expose students to new perspectives on leadership and to encourage students to recognize their own potential as leaders. Through class discussions, readings, speakers and interactions, both on campus and in the community, students will be introduced to leadership theories, traits and skills. This course will encourage students to be creative leaders, to accept and celebrate diversity, to recognize the importance of risk and change and to see the potential in every person to be a leader.

## **STUDENT SERVICES**

### **New Student Programs/Orientation**

As new students arrive at Radford University, they will be supported by a variety of services provided by the Office of New Student Programs.

Beginning with an orientation program for new students and their parents, the office provides support services to help students in their initial adjustment to college. New Student Orientation provides students with the opportunity to meet faculty, university staff and student leaders who will assist them in selecting courses for their first semester as well as acquaint them with the services that will ensure a successful first year of college. New students admitted for the fall semester are invited to attend a two-day orientation session during the summer.

The office provides new students with assistance during their first year, including special interest sessions on a variety of topics. To aid students in their transition to Radford University, the Office of New Student Programs sponsors a one-semester-hour course called "UNIV 100, Introduction to Higher Education." This course utilizes faculty, staff and peer instructors to help new students experience success during the first year and establish the groundwork for achieving a successful college career.

For more information, contact Director of New Student Programs Michael A. Dunn in Walker Hall, (540) 831-5923.

### **UNIV 100. Introduction to Higher Education. (1)**

*Prerequisites: First year students and/or first semester transfer students by permission.*

This course will explore the meaning and value of a comprehensive liberal arts education, teach problem-solving and decision-making processes and promote academic success through selected readings, presentations, discussions and experiential learning opportunities. Students will learn and practice a variety of specific techniques for learning and self-management.

### **Office for Academic Engagement and Community Partnerships**

The former Experiential Learning Office was recently renamed to reflect an increasing emphasis at Radford University on ways that all Radford University faculty and students can engage in real world work and project experiences that provide practical experiences and accomplishments for our students. Focused on the development of immersion internship experiences and community based learning, the office can assist students and faculty who seek local, state, national or international internship experiences. A highlight of the office is the Highlanders in Action Internships that are available both fall and spring semester for three or six credit hours. Students work in teams with community partners on projects related to one of five issues: environment/sustainability; social justice/diversity; health/wellness; arts/culture and economic/urban development. The office is located on the second floor of Walker Hall and is open from 8 a.m. to 5 p.m. daily. For additional information visit <http://www.radford.edu/ruengaged>.

### **Career Services**

Career Services is located on the first floor of Walker Hall. Services include individual and group assistance with career assessments and planning, career information, job-search process, resumé preparation, interview skills and

the transition from college to employment. In addition, the center manages an online virtual job/internship database and a resumé development site. The on-campus recruitment program affords students the opportunity to interview with profit and nonprofit organizations throughout the academic year.

The center encourages undergraduate students to view career planning and the employment search as a four-year process. Students should utilize services of the center staff in their freshman and sophomore years for self-assessment and career exploration, and in their junior and senior years for experiencing career alternatives and implementing career choices.

The center is open 8 a.m. - 5 p.m., Monday through Friday (including the lunch hour) during the academic year.

For additional information, visit the center's website at <http://careers.asp.radford.edu>.

### **TRIO-Project SUCCESS**

Project SUCCESS is the name of the TRIO program, Student Support Services, at Radford University and is an academic program within the Division of Student Affairs. The office operates under the umbrella of the Federal TRIO programs and is financially supported by the United States Department of Education. Its ultimate goal is to assist first generation, low-income, or students with disabilities obtain their baccalaureate degree. Services rendered include enhancing academic skills, tutorial assistance, developing leadership potential, assisting with financial literacy planning, and encouraging graduate school education. By doing so, the program strives to retain and matriculate first generation students into productive positions within the professional work environment or into competitive graduate programs.

For further information, contact Director of Project SUCCESS Veronica Lewis, in Heth Hall, (540) 831-6382.

### **Learning Assistance and Resource Center**

The Learning Assistance and Resource Center (LARC), located on the first floor of Walker Hall, is an all-inclusive academic support service open to the entire Radford University community and maintains Level 3 Certification

status by the international College Reading and Learning Association. Students may make appointments for free tutoring in many subjects, such as math, statistics and science. Graduate and undergraduate English majors, who have experience as peer readers, work with students on writing assignments for all disciplines. Students can also receive assistance in basic study and test-taking strategies. The LARC tutoring staff, which includes undergraduate and graduate students, as well as professional tutors, receives extensive training. Inspired by a holistic approach to tutoring, tutors are trained to make referrals if they detect other issues at play in students' lives. For more information, call the LARC at (540) 831-7704 or visit the LARC web site at [www.radford.edu/~larc](http://www.radford.edu/~larc).

### **OFF-CAMPUS/COMMUTER STUDENT SERVICES**

The Dean of Students Office and SGA Off-Campus Student Council (OCSC) coordinate services for off-campus/commuter students. Check the OCSC webpage at [www.radford.edu/~ocsc/](http://www.radford.edu/~ocsc/) or the off-campus student services web site at [www.radford.edu/~dos-web/ocss.htm](http://www.radford.edu/~dos-web/ocss.htm) for additional information.

The following is a list of some of the services provided for off-campus students: Radford area housing provider list, renters insurance information, the Housing Fair, liaison relationship with landlords and the community, educational opportunities and information about living off-campus, and a roommate matching board in the Dean of Students Office. Lounges are located in the Bonnie Hurlburt Student Center and Heth Hall for relaxation or study. In addition to the Bonnie and Heth lounges, other areas, which provide for study and relaxation, are located in the library. Meal plan options are available for off-campus students. For information about the plans, contact the RU Express Office at (540) 831-5054.

### **Parking**

Students may park motor vehicles, motorcycles and motorbikes in university parking lots if they have obtained a parking permit from the Parking Services Office located in Heth Hall. To purchase a parking permit, students must submit

proof of ownership (by the student or a member of the student's immediate family) and personal identification. The registration of a vehicle does not assure the registrant of a parking space. Overflow parking is available for all students at the Dedmon Center and the baseball field parking area. Detailed information regarding parking and traffic regulations may be obtained at the Parking Services Office in Heth Hall or at the University Police Department in the Allen Building.

### **Housing and Residential Life**

Radford University has 15 residence halls offering a variety of living options and themes for all student classifications, all are within walking distance of academic buildings, campus activities and downtown Radford. Residence Halls are furnished with a TV room, vending machines, kitchen, laundry room, recycling area and study lounge. Unless otherwise specified, halls are coed by suite with two rooms sharing one bathroom. Students taking nine or more credit hours are required to live on campus with the exception of those who commute from home, are married, are a veteran or have completed four semesters as an on-campus resident. See the Boarding Policy in the Standards of Student Conduct for more information.

### **Off-Campus Housing**

A substantial number of rooms and apartments for rent are available in the immediate vicinity of the campus for students who have met the requirements of the university boarding policy as outlined in the Standards of Student Conduct. The university also owns and operates apartments near campus. Students living off campus may purchase meal plans and are encouraged to eat in the university dining halls. Several meal plans are available to off-campus students. (See Dining Services, p. 38.)

### **University-Owned Apartments**

The university owns and operates one apartment facility. These apartments are available for undergraduate students who have met their on-campus boarding requirement. Information can be obtained from the Office of Housing and Residential Life at (540) 831-5375.

## **CENTER FOR DIVERSITY AND INCLUSION**

Various services and programs for underrepresented students at Radford University are coordinated by the Center for Diversity and Inclusion in conjunction with other departments. During various activities each semester, incoming students are introduced to upperclassmen, faculty and staff, and are encouraged to become involved in campus life.

The Black Student Affairs Council, which is affiliated with the Student Government Association, addresses African-American and minority student concerns and interests, helps coordinate activities sponsored by African-American student organizations and seeks to unite all students at the university.

The Diversity Awareness Programming Board, which is affiliated with the both the Center for Diversity and Inclusion and Department of Student Activities, is designed to promote multicultural issues, heritage, and achievements through programming and other activities. Eight historically black Greek letter organizations, which are affiliated with the Department of Student Activities, complement social and service opportunities on campus. The fraternities are Alpha Phi Alpha, Kappa Alpha Psi, Phi Beta Sigma and Omega Psi Phi. The sororities are Alpha Kappa Alpha, Delta Sigma Theta, Sigma Gamma Rho and Zeta Phi Beta.

The National Association of Latino Fraternal Organizations, Inc., which is also affiliated with the Department of Student Activities, is the newest council of Greek Life. This council governs the Latino fraternal organizations on campus. Chi Upsilon Sigma is currently formed at Radford University.

The Gay-Straight Alliance is RU's LGBT organization whose purpose is to promote equal rights in the gay community; spread knowledge and acceptance; and provide a safe and secure environment for gay, lesbian, bisexual and transgendered men and women.

RUCMA, RU's Campus Ministers Association, is the organization for the campus ministers or faculty advisors of the student religious organizations. Recognized student Religious Organizations include: Baptist, Baptist Independent, Catholic, Episcopal, Jewish, Mormon, Muslim, Presbyterian, United Methodist and various non-denominational groups.

Social, cultural and educational activities designed to broaden all students' knowledge of the larger global community and their contributions to society are presented annually by the International Student Affairs Council. For further information, contact the Center for Diversity and Inclusion at (540) 831-5765, [www.radford.edu/diverse](http://www.radford.edu/diverse) or The Department of Student Activities at (540) 831-5332, [www.radford.edu/~stuact](http://www.radford.edu/~stuact).

## **PHYSICAL AND MENTAL HEALTH SERVICES**

### **Disability Resource Office**

The Disability Resource Office (DRO), located on the lower level of Tyler Hall, is a full-service office prepared to meet the needs of students with diverse disabilities. The DRO provides assistance for students with documented disabilities to include: physical, learning, ADD, psychiatric, medical and temporary services (i.e. broken bones, surgeries, extended illness, etc). Services include reasonable academic accommodations, building accessibility, and assistive technology to equalize the learning process. Other services available are: exam proctoring; teaching time management and self-advocacy skills; training for staff, faculty and students in regards to ADA laws; and teaching the rights and responsibilities of both students and faculty in the accommodation process.

With appropriate documentation, services are available for students with temporary disabilities such as illness, surgery or broken bones. The DRO coordinates services with other departments on campus as well as in the community to ensure a holistic approach to serving students. All students with a documented disability are encouraged to register with the DRO.

The DRO is open 8 a.m. - 5 p.m. Monday through Friday. For more information, students can check out the DRO website at [www.radford.edu/~dro](http://www.radford.edu/~dro), e-mail us at [dro@radford.edu](mailto:dro@radford.edu), telephone at (540) 831-6350 or video phone at 1-866-971-2826.

### **Health Center**

The Student Health Center is located on the ground floor of east Moffett Hall. The center is equipped to provide diagnosis and treatment for most of the common health problems encountered by students. More serious medical situations are referred to a network of local specialists. Over-the-counter medications and a limited number of pharmaceuticals are available. Emergency medical care is available at the nearby Carilion New River Valley Medical Center. For more information about services, please visit [www.radford.edu/~health/](http://www.radford.edu/~health/).

Students are encouraged to contact the Health Center regarding any special health concerns they bring to the university. Health information is confidential. Students must complete the Radford University Health Immunization Record Form prior to enrollment. Please note that meningitis, tetanus, hepatitis B, and two MMR injections are mandatory and must be included in the immunization record.

The Student Health Center has been accredited by the Accreditation Association for Ambulatory Health Care, Inc. (AAAH) since 1999. All medical staff are licensed by the state of Virginia and all providers are nationally certified.

### **Student Counseling Services**

Student Counseling Services (SCS), located in Tyler Hall, is a place where students can talk privately and confidentially about issues which are of concern to them. Students frequently seek assistance with issues such as stress, anxiety, depression, relationships, lack of motivation and family concerns. Counseling at the SCS is provided by licensed mental health professionals and one doctoral student. Services at the SCS are free to both undergraduate and graduate students at Radford University. SCS operates on a brief-therapy model with limited sessions. Specific services at the SCS include:

- **Counseling:** Individual personal counseling is offered for whatever concerns students may have. Groups are also provided dependent upon the need of students during that semester. Couples counseling is also available when indicated. Typical counseling topics include stress, anxiety, depression, sexuality, motivation, homesickness, body image issues, relationships, adjustment issues and other developmental

concerns. Counselors can also assist students who need referrals for a medication assessment and can provide brief phone and in-person consultation services.

- Psychiatric: Evaluations for medication and on-going medication monitoring are provided by the SCS psychiatrist. These services are provided during the fall and spring semesters.
- Health Education Outreach Programming: SCS has a health educator during the fall and spring semesters to provide presentations on a variety of health related topics to the campus community. Topics include: Stress Management, Women's Health Issues, Weathering Winter Illnesses, Sexually Transmitted Disease Prevention, Eating Disorders, Smoking Cessation and Weight Management and Proper Nutrition.

For an appointment or further information, stop by Tyler Hall or call (540) 831-5226 for Student Counseling Services.

### **The Office of Substance Abuse and Violence Education Support Services**

The Office of Substance Abuse and Violence Education Support Services is dedicated to increasing knowledge and awareness of substance abuse, sexual assault and other student health issues as well as decreasing the negative consequences associated with high risk alcohol and other drug use and sexual assault. The Substance Abuse and Violence Education Support Services provides the following services:

- Educational Resources on the topics of Substance Abuse, Sexual Assault, Dating Violence and other student health issues.
- RU Aware Program: An educational class for the RU Drug and Alcohol policy violators.
- Counseling for students dealing with issues surrounding sexual and dating violence and/or substance abuse.
- Advocacy and support for sexual assault victims.
- Consultations for students, parents, faculty and staff.
- Presentations and trainings for the Radford University community on substance abuse and sexual assault issues.

- Peer Educators: A student group affiliated with the National BACCHUS and GAMMA Peer Education Network dedicated to raising awareness about student health issues.

The SAVES office advises and supports RU's peer educators.

For more information, students can visit the SAVES website at [www.radford.edu/~saves](http://www.radford.edu/~saves), email [saves@radford.edu](mailto:saves@radford.edu) or call (540) 831-5709.

### **Speech-Language-Hearing Clinic**

The Speech-Language-Hearing Clinic, located in Waldron Hall, provides services for students, faculty and staff. Graduate students majoring in Communication Sciences and Disorders provide the services under the direct supervision of faculty members. Hearing evaluations and hearing aid evaluations are available, as are rehabilitation services for the hearing-impaired person. Speech and language evaluations and therapy are provided for persons with articulation, stuttering, voice, language or other communication problems. The services are free for Radford University students, faculty and dependents. Appointments may be made by calling (540) 831-7665 (V/TTY).

## **DINING SERVICES**

Dalton Dining Hall is the main "all you care to eat" style dining hall which offers a wide selection of foods at various stations. Some of the stations include Fresh Grille with burgers, hot sandwiches and fries, Market Carvery with entrees, vegetables and starches, and Menu-tainment which is an action station where food is prepared in front of the guests. Other options include a salad bar with composed salads and fresh fruit, made to order sandwiches, house made pizzas, dessert bar and beverage station. There is also a variety of healthy, vegetarian, vegan, sustainable, gluten free, and sugar free options made available to students.

The Terrace Shops Food Court located in Dalton Hall features a variety of retail shops including Au Bon Pain, Olo Sushi, Sbarro, and Wendy's. The options range from soup, sandwiches and baked goods in Au Bon Pain, a wide selection of sushi from Olo Sushi, pizza and pasta from Papa John's, and burgers, fries and frosties from Wendy's.

The Food Court in Hurlburt Hall has Chick-fil-A, Pinkberry, Salsarita's, Starbucks and Wild Greens. The options in these locations range from chicken nuggets and sandwiches at Chick-fil-A, frozen yogurt at Pinkberry, fresh-mex food in Salsarita's, coffee and espresso in Starbucks and custom built salads in Wild Greens.

Au Bon Pain Café, located in McConnell Library, features gourmet coffee, espresso drinks, soups and a wide selection of sandwiches and salads.

The New River Grille House on the lower level of Muse Hall features two different concepts. Lunch is an "all you care to eat" buffet with expanded service offering entrees, vegetables, starches, soup, salad bar, and dessert. Dinner features an upscale full-service retail restaurant and gives the guest a choice of salad bar or soup, choice of one gourmet entrée and choice of dessert.

All dining locations on campus accept cash, food dollars, flex dollars, debit and credit cards and RU Express. To learn more about RU Dining Services visit the website at [www.DineOn-Campus.com/Radford](http://www.DineOn-Campus.com/Radford)

### **Special Diets**

To accommodate students with special dietary needs, our staff of dining professionals is always available to assist them. Any allergies or special diet requirements can be discussed in confidence. To make an appointment, call (540) 831-5351.

### **Meal Plans for Students**

All residence hall students participate in a choice of meal plans including 15 meals per week, 19 meals a week or Flex Plan. Meal plans for off campus students include any of the on-campus meal plans or 65 meals per semester, 90 meals per semester or Flex Jr. For more information regarding meal plan options, contact

RU Dining Services at (540) 831-5351. Payment plan options are available for all meal plans through the RU Express Office in Heth Hall or can be reached at (540) 831-5054.

## **TECHNOLOGY SERVICES**

### **Division of Information Technology**

<http://cio.asp.radford.edu>

The Division of Information Technology The Division of Information Technology (DoIT) consists of Information Technology Infrastructure, Enterprise Systems, Technology Support Services, IT Project Management, Printing Services, Vending Services, RU Express, Telephone Services, Web Communications, Radio, TV, and Information Security. DoIT is committed to providing a secure, highly-reliable technology infrastructure along with high-quality, customer-oriented services and support to meet the ever-changing needs of students, faculty and staff at Radford University. DoIT provides comprehensive computer and information technology support for the university and offers students, faculty and staff access to a wide variety of computer, network and Internet resources.

### **Computer Accounts for Accessing Radford University Technology Resources**

Access to Radford University technology resources requires a university-issued account. All Radford University students receive an account while enrolled at the university. This account provides access to campus computers, email; MyRU, class registration and many other systems and resources from the MyRU Portal <https://myru.radford.edu>.

### **Campus Network and Internet Connections**

Radford University provides ubiquitous high-speed Internet and campus network connectivity throughout the campus. WiFi (802.11) access is available in classrooms, administrative buildings, dining facilities and residence halls. In addition to WiFi, all residence hall rooms are equipped with two Ethernet connections and a Cable TV connection.

Access to the full range of Radford University network services requires the use of a VPN connection. (<https://webvpn.radford.edu>).

### **Computing Purchases**

The Radford University Bookstore offers discounted pricing for PC and Mac computers. In addition to hardware, Radford University has agreements in place to provide students with access to Microsoft Office and Anti-Virus software. Complete information on hardware recommendations and available software can be found on the DoIT website.

### **Technology Support Services**

Technology Support Services (TSS) provides one-stop support for students, faculty and staff. TSS offers phone-in and walk-in computer help desk services, repair for university-supported computer equipment, technology training and computer lab and classroom facilities. More information, including help desk hours and training offerings, is available on the Technology Support Services section of the DoIT website.

### **Walker Technology Center**

The Walker Technology Center is a general-purpose computer lab facility available for use by all students, faculty and staff. This center, located on the second floor of Walker Hall, has more than 100 PC and Mac workstations offering access to a wide variety of software and resources. Network printers are available for students in this area. Students receive an initial free allotment of pages each year. After this allotment is used, printouts are paid for using the available balance on an RU Express card.

## **MCCONNELL LIBRARY**

### **<http://library.radford.edu/>**

John Preston McConnell Library is named for the first president of Radford University. The library supports and enhances the university's academic programs by providing access to collections and instructional services for students and faculty. The library's professional faculty and staff serve as a link between users and

library resources and work to anticipate needs, provide state-of-the-art technologies and solicit feedback, which is integrated into McConnell's user-centered services.

### **Collections**

McConnell Library contains a growing collection of more than 500,000 print and electronic resources, including books, periodicals, newspapers, online databases, CD-ROMs, DVDs, microforms, videotapes, and other media. More than 30 librarians and staff provide a variety of services, including reference assistance, instruction, outreach and access to and lending of materials.

University Archives and Special Collections are located on the 5th level and hold historical University records, including Board of Visitors' documents and university-sponsored publications. Special collections include Virginia Iron Coal and Coke Company records, the personal library of U.S. Supreme Court Justice Arthur J. Goldberg and the Keystone Glass Slide Collection.

The library's website at <http://library.radford.edu> is the gateway to a wide variety of online databases, full-text journals, e-books, poetry, music, and other materials, including the resources provided by the Virtual Library of Virginia (VIVA). The website links to the library catalog of books, media, and electronic resources.

Equipment, such as Flip cams and audio recorders, is available at the Front Desk. Non-print items, including DVDs, CDs, as well as playback and viewing equipment, are located on Level 4.

Materials not owned by the library can be borrowed, free of charge, through Interlibrary Loan. Requests can be submitted through the ILLiad system at <http://illiad.radford.edu>; many articles are delivered electronically via e-mail.

### **Lending**

Library materials can be checked out at the Front Desk, which is on Level 3 near the entrance to the building. The Radford University I.D. card serves as the library card and must be presented in order to check out library materials. For more information on lending policies, see <http://library.radford.edu/about/lending>.

[html](#) Anyone needing help using the library or with library questions is encouraged to stop by the Front Desk, email [frontdesk@radford.edu](mailto:frontdesk@radford.edu), call (540) 831-5364, text 5402680155; or send an IM via [library.radford.edu/information/IM-chat.asp](http://library.radford.edu/information/IM-chat.asp).

### **Reference and Research Assistance**

The Reference/Instruction Services department, located on Level 3, offers a wide range of resources and services, including individualized research assistance and course-related instruction. Reference works and other general and specialized research tools are available for use.

Two multimedia classrooms, A and B, are available for group library instruction. The George M. Harvey, Sr. Health Information Resource Center on Level 4 provides information resources, computers and group study space. Anyone needing help with library research is encouraged to ask for assistance at the Reference Desk, send an e-mail message to [refdesk@radford.edu](mailto:refdesk@radford.edu), call (540) 831-5696, text 5403070144, or send an IM via <http://library.radford.edu/information/IMchat.asp>.

### **Computers, Printing, Scanning and Photocopying**

There are 100 public computers available in the library; most are located in the Reference area on Level 3 and the Harvey Center on Level 4 with additional workstations on every level. The two classrooms, A and B, serve as open computer labs when no library instruction classes are scheduled. Public scanners are located in the Reference area. Radford students, faculty and staff are provided a printing allotment; after the allotment is used, printing can be paid for directly with RU Express. A photocopier is located on Level 3 and operates with coins or an RU I.D. card.

### **Special Services**

The online catalog allows users to manage their accounts, renew and request materials, and view electronic course reserves. McConnell Library is wheelchair-accessible and offers services to students with disabilities, including reading machines, text enlargers, and personal assistance in locating and retrieving library materials. Contact the Front Desk for assistance. Locking carrels are available for use by graduate

and honors students engaged in research projects and may be reserved through the Library Administrative Office on Level 3. A Graduate Study Lounge equipped with computers and a printer is located on Level 5. Six group study rooms for student use are located on Level 2. Level 5 is maintained as a quiet study space. Au Bon Pain on Level 3 features gourmet coffee, sweets, soups and sandwiches.

### **For more information**

Students should visit the website <http://library.radford.edu/services/students.html> to familiarize themselves with the information resources, facilities and services available.

## **OTHER SERVICES**

### **Hurlburt Hall Information and Event Planning Office**

Located on the main floor of Hurlburt Hall nicknamed “The Bonnie” in honor of former Dean of Students Bonnie Hurlburt, the Information and Event Planning Office is staffed by a manager and student assistants who can answer a variety of questions regarding student programming and reservations. These questions include scheduling organized activities in public, non-academic spaces on campus, entering them on the campus wide student calendar, selling tickets for events sponsored by student organizations and all-campus programming groups and a lost and found. For additional assistance call (540) 831-5420.

### **I.D. Cards**

Students must present I.D. cards to use certain campus facilities and services. I.D. card photographs are taken at orientation and at registration.

If a university I.D. card is lost or stolen, the student must contact the ID/RU Express Card Office (540) 831-5054 in Heth Hall for a replacement. The replacement fee of \$15 is payable at the time the photograph is taken. If a university I.D. card is lost or stolen after 5 p.m. or during the weekend, the student must contact Campus Police at (540) 831-5500 to invalidate the I.D. card. Only the ID/RU Express Office may revalidate a university I.D. card. Lost I.D. cards may be deactivated 24 hours a day by visiting the RU Express website at [www.radford.edu/~ru-exprs](http://www.radford.edu/~ru-exprs).

## **RU Express Card**

Students may use their university I.D. card as a debit card (the RU Express card) by making an initial deposit of at least \$25 in their card's account. Purchases made with the card are limited to the card's current balance, which can be increased by additional deposits and which declines with each purchase made with the card. The current balance is displayed after each transaction.

The RU Express card offers several types of accounts: Any meal plan account, the Food Dollars account, the Food Dollars Plus account and the RU Express account. The latter enables students to make purchases at a wide variety of campus locations, including the bookstore, food court, and vending and laundry machines and at a number of off-campus businesses.

More information is available by contacting the I.D./RU Express Office at ru-exprs@radford.edu, stopping by the office in Heth Hall (P.O. Box 6992) or visiting the RU Express website at [www.radford.edu/~ru-exprs](http://www.radford.edu/~ru-exprs).

## **Vending Services**

Drink and snack machine refunds are available at the Hurlburt Hall Information and Event Planning Office, the Residence Life Office in the basement of Tyler Hall and the Dedmon Center main entrance. To report a malfunctioning machine, call (540) 831-6267 with the machine location and the nature of the problem.

## **Lost and Found**

A lost and found service is provided at the Information and Event Planning Office on the main floor of Hurlburt Hall. For additional assistance, call (540) 831-5420.

## **Post Office**

A U.S. Post Office is located in Dalton Hall. Boarding students receive mail in boxes provided at this location.

## **CODES AND POLICIES**

### **Boarding Policy**

Radford University believes that an important part of a student's education is achieved within the group-living atmosphere maintained

in its residence halls. The university therefore requires undergraduate students taking nine or more credit hours to live in a university residence hall as outlined by the Boarding Policy in the Standards of Student Conduct.

### **Student Conduct**

All students are expected to become familiar with the contents of the Standards of Student Conduct and are responsible for acting in accordance with the policies contained therein. Students who do not receive a copy of the Standards of Student Conduct at orientation, registration, or in the residence hall may obtain a copy at the Dean of Students Office or view the document online at <http://www.radford.edu/~dos-web/>.

### **Registration of Criminal Record**

It is prohibited conduct to fail to report federal or state probation, felony criminal charges taken under advisement, or conviction of a felony to the Dean of Students Office within 15 university business days following registration or the date the action was taken. Please contact the Dean of Students Office if clarification is necessary.

## **INTERNATIONAL EDUCATION**

Radford University is committed to providing a world class program of global engagement. International and intercultural learning and experience are central components to a high quality undergraduate and graduate experience. Radford University encourages international learning and experience in the strongest terms. This focus stems directly from the Radford University 7-17 Strategic Plan and is manifest in a variety of programs, e.g., the Radford University core curriculum, study abroad (long and short term), student exchanges (graduate and undergraduate), international student exchanges (graduate and undergraduate), and memos of understanding with institutions outside the United States offering opportunities for exchanges.

Students are strongly encouraged to meet with their advisors soon after arrival on campus and to begin a conversation about global

engagement and how their active and engaged involvement can enhance their undergraduate and graduate experiences as well as their competitiveness in an increasingly competitive job market.

The Offices of International Education (Cook Hall) and Diversity and Inclusion (Heth Hall) provide the administrative structure for a variety of programs and issues regarding international learning, cultural issues and diversity concerns.

### **Center for Diversity and Inclusion (540) 831-5765**

The Center for Diversity and Inclusion (CDI) assists international students with their transition to the Radford University environment. Located on the ground floor of Tyler Hall (Room 025), the office provides information, services and programs to assist international students with cultural adjustment concerns. Specific services include international student orientation programs in the fall and spring, as well as cultural events and activities throughout the academic year.

Annual programs are designed to provide international students with the opportunity to share their culture with others and address basic concerns. They include the Heritage Months, Cultural Celebrations, the International Volunteer Network/Host Program and International Week.

The CDI staff understands the special concerns of the university's international student population and encourages students to utilize the office's resources. To make an appointment, students may call (540) 831-5765.

All international students are required to present proof of adequate health insurance coverage. Prior to enrollment, students should contact the office if they have questions or need more information concerning various health insurance policies. For further information visit The Center for Diversity and Inclusion website at: [www.radford.edu/diverse](http://www.radford.edu/diverse).

### **International Education Center**

#### **Cook Hall**

**(540) 831-6200**

The International Education Center (IEC) is housed in 105 Cook Hall and works closely with all offices on campus on matters affecting the international community at Radford University. The office coordinates the International Issues Committee, which brings together all offices working with international students and faculty. The Immigration Counselor assists international students before and during their enrollment with any immigration concerns or procedures.

Study abroad programs and International programs on-campus are two other important responsibilities for the IEC. RU currently sponsors study abroad and semester exchange programs in choice locations on six continents. To make an appointment, please call (540) 831-6200.

### **ADMISSION**

To apply to Radford, applicants should fill out the international application for admission form and mail this along with the non-refundable application fee to:

Office of Admissions  
P. O. Box 6903  
Radford University  
Radford, VA 24142, U.S.A.

Students may complete applications online at [www.radford.edu](http://www.radford.edu). Students planning to enter Radford in fall semester must apply by April 15 and have all credentials submitted by June 1. Students entering in spring semester must apply by October 1 and submit all credentials by October 15. For summer school, students must apply and have all credentials completed by March 1.

Applicants must take the TOEFL or the SATI (Student Assessment Test I) and have the results mailed directly from the Educational Testing Service, Princeton, NJ, to the Office of Admissions.

Either a TOEFL score of 520 (paper-based) or 190 (computer-based), a score of 500 plus 135 hours of training at an approved ELI (English Language Institute), or successful completion of a college-level English course at a U.S. institution is required for admission as a degree-seeking student. Applicants who receive a minimum verbal score of 480 on the SATI need not submit a TOEFL score.

A notarized letter of sponsorship and an original and certified bank statement from a sponsor or parent certifying that the student has enough money for the first year of attendance at Radford is required. For more information about university tuition and fees, see p. 19. Applicants must forward high school or secondary school official records to the Admissions Office. If the applicant has taken any university or college courses, he/she must have each college or university attended send official records to the Office of Admissions. All records must be certified and translated into English.

Applicants wishing to receive transfer credit from any university or college outside the United States must submit an official and translated syllabus listing the content of all courses for which credit is sought. Only courses with the equivalent of a U.S. "C" average grade or above will be considered for possible transfer credit.

An I-20 form, used to obtain a F1 student visa, will be prepared for the student after the application and all necessary information have been received and the Office of Admissions has made a decision to accept the applicant as a Radford student. The I-20 Form cannot be prepared before the application is officially reviewed and the applicant has been accepted.

Applicants who have been out of school for any period of time, other than school breaks, must write a letter telling about activities during the time when they were not in school. This letter of activities should accompany the application form. All new students are required to submit a completed health immunization form to Student Health Services. The required form is included in an applicant's admission materials.

International students needing application assistance should contact the International Admissions Counselor at 209 Martin Hall, Box 6903, Radford, VA 24142. Telephone: (540) 831-5371, (800) 890-4265.

### **Language Tutoring**

Tutors trained in teaching English as a second language are available to help international students through the university's Learning Assistance and Research Center (LARC). To make an appointment or for more information, call (540) 831-6035. (See p. 34.)

### **The International Student Affairs Council (ISAC)**

The International Student Affairs Council (ISAC), a branch of the Student Government Association, addresses international student concerns and issues. ISAC plans and coordinates international-related activities and programs for the campus and community to facilitate understanding and appreciation of the rich variety of culture represented by our international student body.

## **INTERNATIONAL CURRICULUM**

### **Study Abroad**

Radford University, as part of its mission to serve the educational needs of the citizens of the Commonwealth of Virginia, is dedicated to strengthening the international and intercultural dimensions of its programs and activities. The university believes that a study experience in a different country is important in fostering awareness of other cultures, deepening awareness of one's own culture and developing future career paths. Consequently, the university encourages study abroad and facilitates program planning for those students who wish to earn academic credit for studies accomplished in other countries.

Radford has developed several international study opportunities which can accommodate the needs and interests of students in virtually any field. A full range of strong academic programs in choice locations throughout the world is available. Exchange agreements and institutional affiliations provide opportunities for study at leading universities in Europe, Asia and the Americas. Radford University sponsors semester-long and short-term study abroad opportunities on six continents. Students supplement formal coursework by participating in numerous excursions and cultural and historical experiences. With planning, students may participate in international study programs without delaying their expected graduation dates. Study abroad through any Radford (affiliate or exchange) or contracted program (consortium) qualifies for full university credit. Most study abroad course work is graded under the pass/fail option. The only study abroad experience that is eligible for traditional grading (A-F) are those experiences where RU faculty accompany the students abroad and are in some way involved in the educational component of the experience.

Participating students are eligible to apply for grants and loans through the Radford University Office of Financial Aid.

Because special application, registration procedures and deadlines are required for participation in study abroad programs, interested students are encouraged to contact the International Education Center, 105 Cook Hall, (540) 831-6200 for additional information. You may also visit the website at <http://intlprog.asp.radford.edu>. Program size is limited and early application is recommended.

The following is a listing of specific course information and opportunities:

## **EXCHANGE AND AFFILIATE PROGRAMS**

(Curriculum delivered by host institution)

### **INST 489A. Study Abroad Practicum with AustrLearn. (12-18)**

*Prerequisites: Consult the director of International Education.*

Open to all majors. This is an affiliate program that allows a student to study a variety of subjects with over a dozen universities in Australia and New Zealand. Affiliate programs allow students to maintain RU student status while abroad thus allowing them continued access to financial aid and future registration at RU. Students must complete an RU Study Abroad Registration and course Approval Form outlining courses to be taken and approved before leaving to study abroad. Grade values are pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office. Scholarships are possible.

### **INST 489C. Study Abroad Practicum with Middlesex University in London, England. (12-18)**

*Prerequisites: Consult the program coordinator.*

Available fall and spring. Open to all majors.

This is an exchange program where participants can study a variety of subjects in England, including Art, Business, Criminal Justice, Cultural Studies, Education, Health Science, Humanities and Sociology. Exchange programs allow RU students to study abroad while paying RU tuition. Hours earned are treated as if completed at RU for both program completion purposes and financial aid. Students must complete an RU Study Abroad Registration and Course Approval form outlining courses to be taken and approved before leaving to study abroad. Grade values are assigned as pass/fail and the awarding of specific course credit is determined at the

conclusion of the experience and when official transcripts are received by the Registrar's Office.

**Faculty Coordinator: See International Education Director.**

### **INST 489D. Study Abroad Practicum in Kansai Gaidai, Japan. (12-18)**

*Prerequisites: Consult the director of International Education. Available fall, spring and academic year.*

Open to all majors. Limited scholarships may be available. As an exchange student in Japan, participants can study almost any subject. Instruction is in English for most classes, and Japanese is taught at all levels. Exchange programs allow RU students to study abroad while paying RU tuition. Hours earned are treated as if completed at RU for both program completion purposes and financial aid. Students must complete an RU Study Abroad Registration and Course Approval form outlining courses to be taken and approved before leaving to study abroad. Grade values are assigned as pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**Faculty Coordinator: See International Education Director.**

### **INST 489E. Study Abroad Practicum with Kassel Universitat in Germany. (12-18)**

*Prerequisite: German is required. Students should be enrolled in, or have completed, German coursework at the 300-level.*

Open to all majors. Semester or year.

This is an exchange program that involves a directed program of travel study designed to augment a student's knowledge of the German language and culture. Students will receive a minimum of 15 hours per week of formal language instruction in addition to being involved in a total immersion living situation. Permission by the department chair is required prior to enrollment. Exchange programs allow RU students to study abroad while paying RU tuition. Hours earned are treated as if completed at RU for both program completion purposes and financial aid. Students must complete an RU Study Abroad Registration and Course Approval form outlining courses to be taken and approved before leaving to study abroad. Grade values are assigned as pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**Faculty Coordinator: Dr. Philip Sweet**

**INST 489G. Study Abroad Practicum in Spain. (12-18)**

Language instruction.

*Prerequisites: Permission of the Spanish program director and the department chair is required. Available fall or spring. Open to all majors.*

This is an affiliate program whereby students participate in a directed program of travel study designed to augment a student's knowledge of the language, culture and literature of Spain. Students will receive a minimum of 15 credit hours per week of formal language instruction in addition to being involved in a total immersion living situation. Permission by the department chair is required prior to enrollment. Affiliate programs allow students to maintain RU student status while abroad thus allowing them continued access to financial aid and future registration at RU. Students must complete an RU Study Abroad Registration and course Approval Form outlining courses to be taken and approved before leaving to study abroad. Grade values are pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**Faculty Coordinator: Dr. Blas Hernandez**

**INST 489I. Study Abroad Practicum with the Université Catholique de l'Ouest in Angers, France. (Semester Exchange Program) (15)**

*Prerequisite: Two years of undergraduate study.*

Available Spring semester, students receive 15 credit hours and pay in-state tuition to Radford University.

A directed program of travel study designed to augment a student's knowledge of the French language and culture. Students will receive a minimum of 15 hours per week of formal language instruction in addition to being involved in a total immersion living situation. Permission by the department chair is required prior to enrollment. Upon successful completion, students will receive a total of 15 credit hours. Grade values are assigned as pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**Faculty Coordinator: Dr. Eric du Plessis**

**INST 489J. Study Abroad Practicum in Glasgow, Scotland.**

Maximum of 18 credit hours.

Open to all majors, with a preference for advanced music majors. This is an exchange program that allows RU students to study at the University of Glasgow while paying RU tuition.

Hours earned are treated as if completed at RU for both program completion purposes and financial aid. Students must complete an RU Study Abroad Registration and Course Approval form outlining courses to be taken and approved before leaving to study abroad. Grade values are assigned as pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**Faculty Coordinator: Bruce Mahin**

**INST 489L. Study Abroad Practicum with National Taiwan Normal University, China. (12-18)**

*Prerequisites: Consult director of the International Education.*

Open to all majors. This is an exchange program that allows RU students to study at the National Taiwan Normal University in China while paying RU tuition. Hours earned are treated as if completed at RU for both program completion purposes and financial aid. Students must complete an RU Study Abroad Registration and Course Approval Form outlining courses to be taken and approved before leaving to study abroad. Grade values are assigned as pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**See Director of International Education.**

**INST 489M. Study Abroad Practicum with AIFS. (12-18)**

*Prerequisites: Consult the director of International Education.*

This is an affiliate program that affords students the opportunity to study a variety of subjects through selected universities. Affiliate programs allow students to maintain RU student status while abroad thus allowing them continued access to financial aid and future registration at RU. Students must complete an RU Study Abroad Registration and Course Approval Form outlining courses to be taken and approved before leaving to study abroad. Grade values are pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**Faculty Coordinator: Dr. I-Ping Fu.**

**INST 489N. Study Abroad Practicum with AIU-London. (12-18)**

*Prerequisites: Consult the director of International Education.*

This is an affiliate program for study abroad in London. Affiliate programs allow students to maintain RU student status while abroad thus allowing them continued access to financial aid and future registration at RU. Students must complete an RU Study Abroad Registration and course Approval Form outlining courses to be taken and approved before leaving to study abroad. Grade values are pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**INST 489O. Study Abroad Practicum with Salzburg College, Austria. (12-18)**

*Prerequisites: Consult the director of International Education.*

Open to all majors. This is an affiliate program with Salzburg College in Austria that provides students with the opportunity to study courses in the liberal arts, business and education. Instruction is in English. Affiliate programs allow students to maintain RU student status while abroad thus allowing them continued access to financial aid and future registration at RU. Students must complete an RU Study Abroad Registration and course Approval Form outlining courses to be taken and approved before leaving to study abroad. Grade values are pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**INST 489X, Study Abroad Practicum with ISEP - International Student Exchange Program. (12-18)**

*Prerequisites: Consult the director of International Education.*

Open to all majors. This is an exchange program that allows RU students to study at more than 150 ISEP member institutions in 40 countries while paying RU tuition, room and

board. Hours earned are treated as if completed at RU for both program completion purposes and financial aid. Students must complete an RU Study Abroad Registration and Course Approval form outlining courses to be taken and approved before leaving to study abroad. Grade values are assigned as pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**INST 489Z. Non-RU Study Abroad Practicum. (6-18)**

*Prerequisite: Pre-approval by the director of International Education.*

Utilized as a means to acknowledge registration in a non-RU affiliated Study Abroad program that has been approved on an individual basis by the director of International Education and for which a formal articulation agreement has been generated between the financial aid office of the participating university and RU. Special rules apply, so interested parties are strongly encouraged to consult with the university registrar or the director of Financial Aid for additional information. Grade values are assigned as pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office. If pre-approval has not been attained prior to the student's participation abroad, the student will not be considered enrolled at Radford University and credit will only be considered under the traditional transfer credit evaluation process.

**RADFORD UNIVERSITY  
SUMMER PROGRAMS**

Radford University faculty organize a number of short-term study abroad at various times during the year, including break periods between fall and spring semesters, spring break, Maymester, and summer sessions. For an updated list of available programs, please consult the International Education Center website at <http://intlprog.asp.radford.edu>.

# ACADEMIC POLICIES

## Responsibility of the Student

The student must become familiar with the academic policies, curriculum requirements and associated deadlines posted in this catalog, which is available in both paper and electronic versions. The academic advisor will advise the student on all matters related to his/her program of study and will aid the student in the interpretation of policies whenever necessary. However, it is ultimately the student's responsibility to be cognizant of and comply with all university policies and procedures and to meet all stated requirements for the degree. It is also the student's responsibility to monitor campus e-mail on the university web portal frequently, as these electronic means of communication have replaced mass mailing as the university's most effective and efficient ways to disseminate important information to the campus community. Failure to read official emails and university web portal communications in a timely manner does not relieve students from their responsibility to take appropriate action(s) on the information contained in them. For information about Radford University's extensive technology services available free to all students. (See p. 38 of this catalog.)

## ADVISING

### Academic Advisors

Radford University stresses the importance of academic advising and makes a concentrated effort to ensure that all students have adequate and appropriate advising. Some of the guiding ideas that shape academic advising at Radford University are:

- High quality academic advising ensures long-term success for both the students and the institution.
- A major purpose of the academic advising system at Radford University is to provide opportunities for students to make informed choices that will provide successful educational experiences at Radford University contributing to their academic and personal development.
- Academic advising provides students with opportunities to assess the relationships among their interests, values and abilities. It is an ongoing process during which advisors use their expertise and experience to help students develop their educational and career plans.
- Through advisors' expertise and other university resources, good advising can guide students toward achieving their educational, career and personal goals.
- Relationships between advisors and students can foster not only the academic and personal growth of students, but also their level of satisfaction with the entire educational experience at Radford University.

Each undergraduate college has an Advising Coordinator who organizes and supervises the advising program within that college and who serves as a member of the Academic Advising Committee. The college advising coordinators are included in the undergraduate college deans' administrative structure. The coordinators of academic advising and their offices are listed below:

### Business and Economics

- Nasim Schwab, Whitt Hall 001.  
For additional information, see p. 82.

### Education and Human Development

- Donna Dunn, Peters Hall A104.  
For additional information, see p. 91.

### Humanities and Behavioral Sciences

- Deborah Kitts, 127 Russell Hall.  
For additional information, see p. 133.

### Pre-major Advising Center

- Patti Williamson, Walker Hall 103.  
For additional information, see p. 48.

### Science and Technology

- Susan Underwood, Stuart Hall 163.  
For additional information, see p. 161.

### Visual and Performing Arts

- Donna Shelton-Oliver  
241 Porterfield Hall.  
For additional information, see p. 193.

## **Waldron College of Health and Human Services**

- Loretta Estes, Waldron Hall 351.  
For additional information, see p. 119.

The undergraduate college advising coordinators collaborate with one another through their membership on the Academic Advising Committee to ensure that all undergraduate students receive adequate and equitable advising which is appropriately evaluated.

Sound academic advice helps the student address not only course selection and scheduling, but also what a well-educated person should be and know. Academic Advisors assist students in planning an organized program that includes the necessary courses in the major area of concentration, Core Curriculum and electives. It is the responsibility of the student to be sure all of the necessary requirements for graduation are met. Students must consult with their academic advisors prior to registration.

### **The Pre-major Advising Center**

The Pre-major Advising Center advises students who have not decided on an academic major. At RU, students do not need to feel pressured to choose a major right away. In fact, students are encouraged to use the first year to explore interests, values and abilities. As a pre-major, students have the opportunity to investigate and discuss various majors and programs offered at RU. Students receive individualized academic advising from trained advisors who not only assist with deciding on a major, but with the transition to college life as well. For an appointment or information, students can stop by the office in Walker 103 or call (540) 831-5220.

### **Standards of Academic Progress for Financial Aid Recipients**

Financial aid recipients are required to meet progress requirements in addition to grade requirements. Students must meet at least a 2.0 cumulative grade point average. Recipients also must complete at least 50 percent of enrolled hours (if the student has attempted less than 48 cumulative hours) or 75 percent of enrolled hours (if the student has attempted greater than 49 cumulative hours.) Students may only receive

financial aid for attempted hours that do not exceed 150 percent of the total hours required in their program. All coursework including transfer hours are included in determining progress. More detailed information regarding Standards of Academic Progress for financial aid recipients may be obtained from the RU Financial Aid Office or on the RU Financial Aid Office website at [www.radford.edu/~finaid](http://www.radford.edu/~finaid).

### **Class Attendance**

All students are expected to be officially registered and to attend classes on a regular basis. No absences of any nature will be construed as relieving the student from responsibility for the completion of all work assigned by the instructor.

A student registering late for a class will be responsible for all work assigned and material covered during the class sessions missed due to the late registration.

The first class meeting of an evening class, which meets one night per week for 14 weeks, represents about seven percent of the total class time; this first meeting is a regular class.

If students wait until the second class meeting to enroll, the class could be cancelled due to inadequate enrollment at the first class meeting.

During the first week of each course, the instructor shall inform students of the attendance policies for the course. Class attendance policies are determined by the instructor and should allow for a reasonable number of absences which are required due to documented official university-sponsored activities, health problems, other emergencies and a student's religious holidays (which must be reported by the student during the first week of class). It is the student's responsibility to make acceptable arrangements with the instructor to complete work missed during the student's absence from class.

Official university-sponsored activities include, but are not limited to, those events which students attend as official delegates funded by the university or in which they represent a university-funded, all-campus organization, intercollegiate athletic team or performing group and academic course-related field trips in which participation is mandatory as approved by the appropriate academic dean. Students who have questions concerning the interpretation of the

class attendance policy should ask the department chairperson or academic dean.

### **Class Absence Notices**

Faculty and students are encouraged to deal directly with one another concerning all student absences. At the request of the professor or the student, the Dean of Students Office will issue absence notices to faculty only under the following circumstances:

1. When the student expects to be away from the university for a week or more of classes and the student is unable to make contact with his/her professors.
2. When the student is dealing with a significantly traumatic situation which the student is unable or reluctant to discuss with his/her professors.
3. When the student will be absent from classes due to his/her participation in official university-sponsored activities (i.e. conferences attended as an official delegate funded by the university or in which the student represents a university-funded all-campus organization, conduct hearings, special meetings with the Board of Visitors or other dignitaries). Notices may be issued by other offices concerning absences of students participating in intercollegiate athletic teams, performing groups and academic course-related field trips in which participation is mandatory, as approved by the appropriate academic dean.

The Student Health Center will issue absence notices to students only if it is evident to the clinical provider that the student should not be in class due to illness. No generic 'seen and treated' notes will be issued to students. In all other circumstances, students should communicate directly with their professors about their absences from class for reasons of illness or other reasons for which they are requesting special consideration.

**NOTE:** When the Student Health Center or the Dean of Students Office agrees to issue absence notices to students or faculty, these notes do not excuse the absence, nor do they guarantee the student will be permitted to make

up tests or other missed assignments. Only the student's professors can make those decisions. The absence notes simply document that the student's illness or other circumstances indicate that they should not or are unable to participate in class for the time period designated.

## **GRADES AND CREDIT**

### **Grading System**

- A** Excellent work
- B** Work that is distinctly above average
- C** Work of average quality
- D** Work of below average quality; D is the lowest passing grade at the undergraduate level
- F** Indicates failure and means the class must be taken again with a passing grade before credit is awarded
- AU** Indicates the student audited the course. See "Auditing Courses" below.
- I** Work is incomplete. See "Incomplete Grades" on p. 50.
- NR** No grade was recorded by instructor (for temporary administrative use only)
- ON** Temporary grade awarded for classes that are not designed to be completed during the term of initial enrollment; used in some situations for Study Abroad, Internships, and other selected classes. See "Ongoing Courses" below.
- P** Passed with satisfactory work of "C" or better. See "pass/fail grades" on p. 51.
- W** Student withdrew, without penalty, from the course after schedule adjustment but before the end of the eighth week or 60 percent of the term. No credit was awarded.

### **Grade Point System**

The quality of work completed is recognized by the assignment of grade points to various letter grades. The student's academic standing depends upon the number of semester hours of work successfully completed and upon the number of grade points accumulated. Radford University uses a four-point system in which grade points are assigned to grades as follows:

- A = 4 points
- B = 3 points
- C = 2 points
- D = 1 point
- F = 0 points

A student's grade point average (GPA) is computed by:

- Multiplying the number of semester hours (SH) for each course taken by the number of grade points (GP) corresponding to the grade earned for the course. (See table above.)
- Adding up the total number of grade points for the appropriate period (a single semester, for example, or an entire academic career at Radford University)
- Dividing the total number of grade points by the total number of semester hours attempted (TSHA) during that same period

For example (see above for abbreviations):

Course	Grade	GP	SH	Total
ABC 101	A	(4)	x 3	= 12
DEF 102	B	(3)	x 2	= 6
GHI 101	C	(2)	x 3	= 6
JKL 201	D	(1)	x 4	= 4
MNO 102	A	(4)	x 4	= 16
Total			16	44

Grade Point Average (GPA): 44 GP/16

TSHA = 2.75 GPA

While courses passed with a grade of "C" or better at other institutions do satisfy certain course requirements, these grades are not used in computing the Radford grade point average.

### Auditing Courses

A student who audits a class attends and participates but receives neither an A-F or P/F grade nor credit for the course. Students may audit classes on a space-available basis with written permission of the class instructor and the department chairperson. Students who audit a course may not transfer to regular status in the course after the census date. Auditing students are expected to attend class on the same basis as regular students. The instructor may delete from the roll any auditing student who does not meet course requirements. Tuition and fee rates for audited courses are the same as those for credit courses.

### Incomplete Grades

Occasionally, students are unable to complete course requirements because of circumstances beyond their control: e.g. a disabling accident or illness, or a family-related issue that creates a clear hardship for the student and precludes the completion of final assignments or exams. At the discretion of the faculty member, a grade of "I" (Incomplete) may be assigned.

Incomplete grades are to be awarded only in those cases in which all but a small portion of the course work has been completed. Otherwise, the burden in completing unfinished assignments would be severe, and withdrawal from the course or the university is appropriate and recommended. Incompletes are also not to be awarded because students want or need additional time to complete assignments to avoid low grades, or so that students have time to do "extra credit" work to improve their grades. Prior to the time when the extenuating circumstances emerged, the student should have been making satisfactory progress in the class and not be in danger of earning a grade lower than "C." Finally, A-F grades cannot be changed to incompletes after the term has ended; arrangements for incompletes must be made before the end of the term and prior to the awarding of final grades.

A written Course Completion Contract specifying the work to be completed and the deadline for its completion (no later than the last day of classes of the following semester) must be signed by the faculty member and the student. The "I" grade will automatically revert to "F" if it is not otherwise changed before the last day of classes of the next (Fall or Spring) semester. The Course Completion Contract must be filed in the office of the chairperson/director of the department/school in which the course is taught, with a copy submitted to the registrar along with the faculty member's grade sheet.

Radford University will not award degrees to tentative graduates with "I" grades on their records. For a student to be considered a fall graduate, the "I" must be replaced with an A-F grade by the census date for the following spring semester; to be a spring graduate, by the census date for the following Summer II term; and to be a summer graduate, by the census date for the following fall.

## **Conversion of “I” and “ON” Grades to A-F or P/F Grades**

Grades of “I” or “ON” will automatically revert to “F” if not satisfactorily removed by the last day of classes of the next (Fall or Spring) semester. Once a grade of “I” or “ON” is placed on the transcript, it remains on the transcript until it is replaced by the appropriate grade when all course requirements are completed or when the deadline for completion (one semester) has passed.

If, due to extenuating circumstances, a student is unable to complete his/her required coursework by the established deadline, the student has the option of requesting a one semester extension through the academic petition process. Approval of an extension for an incomplete is not guaranteed and depends on the student’s unique circumstances.

A student cannot re-enroll for a course for which an “I” or “ON” is recorded on the transcript. A degree cannot be awarded to a student with an incomplete or “ON” grade on his/her record.

## **Ongoing Classes**

Grades of “ON” (Ongoing) will be assigned at the end of the semester for classes designed to cross traditional academic term boundaries. In such courses, students are not expected to complete all class requirements within the original term of enrollment. Classes eligible for “ON” grading must be approved by the department chair or school director before they are entered into the schedule of classes. The “ON” grade will apply to all students in the class and not to selected students. Recitals and internships are examples of classes eligible for “ON” grading; other classes may be approved for “ON” grading as determined by departments offering the classes.

## **Pass-Fail Grades**

Any course taken pass-fail, and passed successfully, will count as a general elective. The course may not be used to meet requirements for the Core Curriculum, major, minor or other specified degree or certification/licensure requirements. Courses within the major or minor may be taken pass-fail, but only if all major or

minor requirements, including number of hours within the major or minor, will be fulfilled by other courses, or if the required course was designed to be a pass/fail course for all students. The following guidelines apply to pass-fail courses:

- A Pass-Fail request must be signed by the student’s advisor and submitted at the Office of the Registrar by the deadline specified in the academic calendar. The pass-fail option may not be changed after this deadline.
- The pass-fail option is limited to students with a cumulative GPA of at least 2.00.
- A passing grade is awarded if the student would otherwise have earned a “C” or better in the course. The passing grade adds to total hours completed without affecting GPA. A Fail grade is calculated into the GPA as an “F” grade.
- Other than mandatory pass-fail courses, a student may take no more than 12 semester hours of pass-fail courses during his/her academic career at Radford University.
- Pass-Fail courses passed successfully may not be repeated for a letter grade.

## **Grade Changes/Corrections**

Students who feel they received a grade in error should contact the appropriate faculty member. If the faculty confirms that an error has indeed been made, then the faculty member must process a grade change form and submit it to the Office of the Registrar no later than one year after the submission of the original grade (excluding Incompletes).

## **Grade Appeals**

Students wishing to appeal grades received in courses should refer to the Radford University Procedures for Formal Grade Appeals. The appeal procedure and associated forms are posted on the registrar’s website: <http://www.radford.edu/~registra>.

## **REPETITION OF COURSES**

The Repetition of Courses policy allows students to improve his or her grade point average.

All courses completed and the grades earned will remain on the student's transcript. This policy applies only to the repetition of courses taken at Radford University.

**Repeat Courses** – In the first three (3) times in which a student re-enrolls in any course(s) already attempted, the additional enrollments will be designated as “repeats.” Within the three repeat limit, a student may repeat as many as three different courses, or the same course may be repeated as many as three times. Repeating the same course more than once shall be considered multiple repeats. For example, if a student fails his/her first attempt at SOCY 110 and then repeats the course, this constitutes one repeat, regardless of whether or not the student passes the course. If a student registers for the same class for a third time, this constitutes the use of a second repeat. The student would have only one remaining repeat opportunity. Repeat courses are subject to the following conditions:

a. The grade earned in the Repeat Course will replace the original grade in the course repeated.

b. The Repetition of Courses policy is applied automatically by the registrar.

c. If the student receives a lower grade while attempting a repeat, the most recent grade will count in calculating the student's GPA. If a student repeats a course in which he or she received a passing grade and fails the repeat course, the credit earned previously will remain but both the original and repeat grades will be calculated in the GPA.

d. Additional credit hours will not be awarded unless the course grade was “F.”

e. If the third Repeat Course is taken in a semester or summer session in which one or more other courses are being retaken, the student will be asked by the Office of the Registrar to identify the course to be treated as the third repeat. If the student does not respond to this request, the Repeat Course will be the one in which the grade earned most improves the student's cumulative grade point average. Other courses being retaken will be counted as explained below.

**Retake Courses** – Courses in which a student re-enrolls after the three repeat courses have been designated are subject to the following conditions:

a. Unless otherwise stipulated by departmental requirements, there is no limit on the number of courses that may be re-taken, or on the number of times a particular course may be retaken.

b. Additional credit hours for the courses retaken will not be awarded unless the original grade was “F” or unless the course description indicates that the course may be taken for credit more than once.

c. All attempted credit hours and all earned grade points in each enrollment, original and re-takes, will be included in all GPA calculations.

d. Unless a course may be taken for credit more than once, a student may not retake a course in which the original grade was “B” or higher.

e. Some courses may be taken multiple times for credit as if each enrollment were for a different course. In these courses the content or specific subjects covered differ for each enrollment and the credits and grades earned in each enrollment are counted toward degree requirements. There may be limits to the number of retakes permitted for these courses. Students should review the catalog course descriptions to determine if a course may be retaken for additional credit.

## **OTHER ACADEMIC INFORMATION**

### **Challenge Examinations**

Challenge examinations provide a mechanism for students to demonstrate knowledge they have acquired through work, life or educational experiences. Students who are able to justify that their previous experiences are relevant to a particular course may choose to earn credit for that course by challenge examination. Challenge examinations are comprehensive and carry a processing charge. Individual departments are responsible for determining which courses, if any, may be challenged for credit. Students cannot challenge a course for which they are currently enrolled nor can they challenge a course they have already completed. A passing grade of “C” or better on the challenge examination will be recorded as a “P” on the transcript. Credits earned will be Radford University hours.

Unsuccessful attempts at challenge examinations will not be recorded on the transcript and may not be repeated. Challenge Examination applications are available in the Office of the Registrar.

### **Transfer Credit**

Students wishing to transfer credit to Radford University, after earning that credit as a transient student at another institution, must complete the form, Radford University Permission to Take Courses for Transfer Credit (AA 21), and must furnish the university with an official transcript after completing the course work. For the transcript to be considered official, it must be sent directly from the issuing institution to the Office of the Registrar. No courses taken as pass/fail, or courses with a grade of “C-” or lower will be considered for transfer credit. Accepted transfer work may satisfy certain course requirements but the grades are not used in computing the Radford grade point average, and the Radford repeat policy may not be applied.

Radford University will consider for transfer credit only those credits earned from a regionally accredited college or university as recognized by the U.S. Secretary of Education and the Council of Higher Education Accreditation (CHEA).

### **Independent Study**

Independent Study courses are offered by several departments/schools and are designed to permit students to investigate specific problems or areas of interest independently under the direction of a supervising professor. An Independent Study proposal must be signed by the student’s academic advisor, the department’s/school’s chairperson, and the department’s/school’s curriculum committee chairperson (if required by the department/school) prior to the deadline for adding courses in the term in which the study is to be undertaken. Independent Study courses may be taken either on a pass-fail basis or for a letter grade. No student may apply more than six hours of credit for Independent Study toward graduation requirements.

A faculty member may offer a maximum of six credit hours of Independent Study per semester.

### **Practical Experiences**

Some undergraduate programs require students to participate in a supervised practical experience. Such experiences include internships, practica, clinical courses, student teaching and other types of fieldwork. Departments will provide written information to potential majors about the qualities of character and interpersonal skills that are normally expected of participants for them to complete successfully the practical experience. Potential problems that the student may have in a practical experience are identified, and appropriate recommendations are offered.

Students may obtain from the department the written criteria for entry into a practical experience and the procedures for implementation of those criteria; performance standards during the experience; circumstances under which the student may be withdrawn from, or denied entry to, the experience; and processes, including appeals, which regulate such withdrawals.

Departments and programs governed by the above include, but are not limited to: Communication Sciences and Disorders; Counseling Psychology; Counselor Education; Criminal Justice; Educational Studies; Music Therapy; Nursing; Physical Education (Teaching Concentration); Recreation, Parks and Tourism; Social Work; Special Education; Sociology. Policies specific to each program will be on file in each department office. Students planning to take such courses should obtain a copy of the relevant departmental policies and procedures before registration in the course.

### **Class Standing**

The class standing of a student is determined at the beginning of each semester and will not be changed during that semester. Any student with 26 semester hours of credit will be classified as a sophomore, 56 semester hours of credit as a junior, and 86 hours of credit as a senior.

### **Dean’s List**

Students will be placed on the Dean’s List for a given semester if they:

- have 12 semester hours graded A-F; and
- obtained a grade point average of at least 3.4 for the courses not graded on a pass-fail basis; and
- obtained no grade below a “C”; and

- received no “Incomplete” grades.

## ACADEMIC LEAVE

Occasionally, Radford University students want to take advantage of either of two special experiential learning opportunities—non-credit bearing internships and non-RU study abroad programs—that require that they not be enrolled at RU for a semester. These students may apply for the status of “academic leave.”

### Eligibility

(1) The student anticipates that the internship or study abroad experience will necessitate that he/she be away from RU no more than one academic semester.

(2) The student fully intends to enroll at RU during the semester after the experience has concluded.

(3) The student has attained sophomore status and is in good academic standing.

### Benefits of Academic Leave

The status of “academic leave” entitles the student to virtually all of the same privileges as enrolled students, including receipt of communications from the university, registration and housing selection at the time commensurate with their number of hours earned, library access, mailboxes and e-mail accounts. Since they are not enrolled as RU students, they will not be billed as RU students for the semester away.

By definition, no RU credit will be awarded for non-credit bearing internships. Credits from study abroad experiences offered by institutions other than Radford University will be treated as transfer credits. Students should obtain transfer course approval before departure. While grades of “C” or better from the host institution are required for the student to receive credit for the courses, grades earned elsewhere have no effect upon the student’s GPA at Radford University.

### Application Process

Students wishing to apply for academic leave must complete an “Application for Academic Leave” form. These forms are available in the Center for Experiential Learning and Career Development, the International Education

Center and the Office of the Registrar.

In addition to the form, students must submit a copy of their letter of acceptance for the experiential program in which they plan to participate. The application must be approved by the student’s academic advisor, department chair, dean, and the director of experiential learning and career development and/or the director of international programs, and then submitted to the Office of the Registrar. Applications for academic leave must be received by the Office of the Registrar no later than 30 days before the beginning of the semester the student will be away.

### Term of Academic Leave

Academic leave is granted for one semester. Students who wish to extend their leave must reapply by contacting the Office of the Registrar no later than 30 days prior to the next semester. Students are limited to two semesters of academic leave during their academic careers at Radford University.

Upon conclusion of the semester of academic leave, the student’s status will automatically be returned to “active.” In the unlikely event that the student is unable to return to Radford University following the semester of academic leave, he/she must notify the Office of the Registrar of his/her intent no later than 30 days before the beginning of the semester following the leave. Students wishing to return to RU after the conditions of their leave have expired must submit an application for readmission (refer to p. 60 of this catalog).

## NON-ACADEMIC LEAVE WITHDRAWAL

Periodically, students may need to withdraw from the university for non-academic reasons. Non-academic reasons for withdrawal from the university may include medical, psychological and/or other personal reasons such as extended illness in the immediate family, deaths of significant others, legal requirements to appear in court for an extended period of time, call to active military duty and others.

Typically the student will be required to meet with the vice president for student affairs or his/her designee. See the military leave

policy for withdrawals resulting from a call to active duty.

**Documentation Requirements:** In order to withdraw from the university for non-academic reasons, documentation of the condition necessitating the withdrawal will be required. Examples may include medical records, psychological records and other forms of documentation appropriate to other types of non-academic withdrawals.

**Procedures:** Upon receiving the required documentation, the Office of the Vice President for Student Affairs will examine and evaluate the documentation. As needed, the vice president for student affairs will consult with the originator of the documentation, the Council of Deans at Radford University or others, duly employing appropriate student disclosure permission.

After evaluating the case, the vice president for student affairs will determine whether the student should be provided an exception to the university's withdrawal policies. Should an exception be granted, then corresponding grades of "W" will be recorded on the student's transcript and pro-rated refunds of tuition and fees may be made if applicable.

If an exception is not granted, the student may appeal his/her case as provided in this policy. All decisions regarding withdrawal requests will be promptly communicated to the student in writing.

**Grades:** When a student withdraws from the university for non-academic reasons, typically grades of "W" will be recorded for all classes attempted during that semester. Only in rare cases, under special circumstances, will students be allowed a mixture of grades and "W's" or Incompletes.

**Refunds:** For students withdrawing for non-academic reasons exceptions may be made for a pro-rated refund of tuition and fees. For resident students board fees and room rent refunds will be granted only in accordance with university policy.

## **PARTIAL NON-ACADEMIC WITHDRAWALS**

Withdrawal from one or more classes but not all classes: A pro-rated refund of tuition and fees may be granted if the withdrawal drops the student below 12 credit hours (undergraduate) or 9 credit hours (graduate).

**Appeals:** Any student who is not satisfied with the outcome or process pertaining to his/her withdrawal situation may appeal. The procedure for appealing is:

(1) The student must write a brief document stating the facts of his/her situation and the basis for the appeal.

(2) The document must be presented to the vice president for student affairs or his designee within 10 days of the decision about his or her situation.

(3) The vice president for student affairs will then take the student's written document and other materials as necessary and appropriate to the Council of Deans which will then make a final decision.

**Readmission to the University:** When a student has withdrawn from the university for non-academic reasons, the university takes seriously its obligation to the student who withdrew and to the university community. Therefore, when a student is completely withdrawn from the university a block will be placed by the Office of the Vice President for Student Affairs upon the student's ability to resume his/her studies pending receipt and evaluation by the vice president for student affairs of required professional and/or other documentation that supports resumption of studies.

## **CALL TO ACTIVE MILITARY DUTY**

The university has adopted a separate leave policy for students called to military active duty. The intent of this policy is to assist, whenever possible, a student's withdrawal and subsequent reentry to the university so that the student suffers no financial or academic hardship that was beyond the student's control. This policy may also apply to students whose spouse is called to military active duty.

**Procedures:** Students called to active duty should complete a Military Active Duty Withdrawal form and submit it to the Office of the Registrar along with a copy of the active duty paperwork. If circumstances are such that the student is unable to complete the required paperwork prior to leaving campus, they or their designated representative should contact the Office of the Registrar at their first opportunity, but before the conclusion of the semester in which the student left.

**Grades:** Students will receive grades according to standard grading options (no grade if before the census date, and “W” or “F” after the census date or “I” as arranged with each professor). This would entitle the student to the appropriate pro-rated refund (of tuition and fees) based on the withdrawal date.

The student may elect to withdraw and receive “W’s” for all courses in which the student is enrolled. The reason for granting “W’s,” regardless of the student’s current grade status, is based in part on the uncertainty that has led up to the student’s departure and how that has probably affected the student’s ability to perform in the classroom. Under no circumstances will a student be eligible to receive a letter grade without completing the course.

**Tuition Charges and Refunds:** If a student elects to receive “W’s” for all courses, tuition and fees will be refunded to the student. However, during the withdrawal process, students can request financial credit be given for a future term.

If a student’s withdrawal is within the last 10 class days of the semester, the student may request “I’s” in classes which can be completed. In that case, tuition and fees will be charged for the number of “I” credits as a proportion of the total credits enrolled. The remaining money will be refunded or applied to a future term.

In making any refund or “credit” of tuition monies, first consideration will be made to repaying any financial aid awards as appropriate.

**Room and Board:** Room and Board will both be refunded on a daily basis according to the official date of withdrawal.

**Deposits:** Any deposit for future academic terms (specifically the housing deposit) will be completely refunded.

**Textbooks:** A 100 percent credit will be issued on all textbooks, whether new or used, on all books returned to the university bookstore. (Note: The credit will be kept on file at the Bookstore until the next term for which the student enrolls).

**Reinstatement/Readmission:** A student will be readmitted under the standard readmission procedure through the Office of the Registrar. A readmission application is necessary for all students wishing to re-enroll so that required adjustments in the student information system can be made and so the university can inform the student about academic advising, registration procedures, housing options, tuition charges and financial aid options.

Readmitted students who have been away less than two consecutive semesters will be allowed to continue with the academic requirements of their original entry to Radford University (matriculation term), wherever possible (i.e. using the same catalog). Students readmitted to Radford University who have been away for two or more consecutive semesters must meet the degree requirements in effect at the time of readmission. Recognizing that tours of duty frequently exceed one year, RU will make every effort to accommodate through exceptions and substitutions the special academic needs of students returning from active military duty. However, such exceptions and substitutions can be made only to the extent that they do not compromise the quality or integrity of the student’s degree. The student must meet the required GPA, financial and disciplinary requirements of any other student.

## WITHDRAWAL PROCEDURES

### Withdrawal from One or More, But Not All Courses

The student must secure a withdrawal slip from the Office of the Registrar. Undergraduates wishing to withdraw from an on-campus course must have the slip signed by the student’s academic advisor or an advisor in the student’s advising center and then return all copies to the Office of the Registrar. Undergraduates wishing to withdraw from an off-campus course must have the withdrawal slip signed by the student’s academic advisor (preferred), an advisor in the

student's advising center or the instructor of the course from which the student is withdrawing. The withdrawal is not complete until the signed slip has been returned to the Office of the Registrar. If a full-time student withdraws from all classes, but at different times during a given fall or spring semester, the individual withdrawals are changed to a university withdrawal.

Students must contact the Student Accounts Office in Heth Hall to initiate a request for a refund of tuition if they drop a class or classes prior to the census date and if the reduced class load qualifies them for a tuition refund.

A student who drops a class prior to the conclusion of schedule adjustment will receive no grade. A student who withdraws from class after schedule adjustment but before the end of the eighth week of the semester (or 60 percent of the total class meetings of a summer session or any other non-traditional course, whichever comes first) will receive a grade of "W." Students may not withdraw from individual classes following the end of the eighth week of the semester.

A student may not withdraw from more than five classes during the course of undergraduate studies at Radford University. After a student has withdrawn from five classes, any subsequent withdrawal will result automatically in a grade of "F."

Withdrawals from classes prior to Fall Semester 1988, courses dropped during schedule adjustment, or withdrawal from all classes at the university do not enter the five-class withdrawal limitation.

### **Withdrawal from the University (All Courses)**

Students withdrawing from all courses during a given semester must contact the advising coordinator in the college of their major to obtain and complete a "Withdrawal Check-Out Sheet." Students who have not declared a major must contact the advising coordinator in the Pre-Major Advising Center. The academic advising coordinators' offices are in the following locations: College of Business and Economics, Whitt Hall 002; College of Education and Human Development, Peters Hall A104; College of Health and Human Services, Waldron Hall 351; College of Humanities and Behavioral

Sciences, Russell Hall 127; College of Science and Technology, Stuart Hall 163; College of Visual and Performing Arts, 240 Porterfield Hall; Pre-major Advising, Walker Hall; Adult Degree Program, Young Hall 107; College of Graduate and Professional Studies, Lucas Hall. This process must be followed to ensure the student will receive any eligible refunds and the appropriate grades for the semester.

Students who withdraw from the university (all classes) before the census date will receive no grades. Students who withdraw from the university after the census date but prior to the end of the 12th week of the semester (80 percent of summer sessions) will receive "W's" in all classes. Students who withdraw from the university after the 12th week will receive "F's" in all classes.

A student may withdraw from the university only once during his or her RU academic career. (Canceling enrollment to the university or receiving a medical withdrawal does not count as a withdrawal from the university.) Exceptions will be granted by the student's college dean or by the associate vice president for student affairs.

Any student who withdraws from the university during a fall or spring semester must apply for readmission. Please refer to p. 60 for more information about readmission.

### **Financial Aid Recipient Withdrawal from the University**

Financial Aid recipients who withdraw from the university may be required to repay some or all of the financial aid funds they have received. Students who need to withdraw from the university should contact the Financial Aid Office to determine the effect on financial aid funds. Additional information can also be obtained from the RU Financial Aid website at [www.radford.edu/~finaid](http://www.radford.edu/~finaid).

### **Withdrawal by Part-Time Students**

Part-time and full-time students each receive the same number of withdrawals: five (5) withdrawals from individual courses and one withdrawal from the university. (Additional university withdrawals may be granted only upon petition to the college academic dean or the associate vice president for student affairs.)

Part-time students who withdraw from all courses during a semester will be assessed a course withdrawal from each of the courses, not a University Withdrawal. However, if such a student has already used all five course withdrawals, and he/she withdraws from all courses, this action will be considered a University Withdrawal.

**Withdrawals from Summer Session Courses**

Withdrawals from courses during summer sessions are individual course withdrawals, even if the student withdraws from all courses in which he/she is enrolled. These withdrawals do count against the five withdrawal limit. Although – for financial aid and other reasons – this action must be handled administratively as a University Withdrawal, the student is not charged with his/her one possible University Withdrawal.

**Refund Checks**

It is university policy to hold the enrolled student liable for charges incurred; therefore, refund checks are issued in the name of the student.

**Exceptions to Withdrawal Procedures**

Exceptions to the withdrawal procedures may be granted upon recommendation of the vice president for student affairs in cases of documented medical or other non-academic reasons (i.e., medical leave of absence).

**Fall and Spring Tuition and Fees**

Students who withdraw from the university prior to the census date will not be charged any tuition and fees. For fall and spring semesters only, students who withdraw from all courses after the census date will be charged a percentage of the applicable tuition and fees based on the effective date of the withdrawal as recorded by the Office of the Registrar and the number of weeks past the census date. The census date is specified in the academic calendar for each semester. The proration of fees does not apply to certain fees including matriculation, lab, bowling, music, and late fees. The schedule for allocation of tuition and fees between amounts

charged and amounts credited is listed below. This schedule is subject to change.

<b>Weeks Past Census Date</b>	<b>Percent Charged</b>	<b>Percent Credited</b>
1	20	80
2	40	60
3	50	50
4	60	40
5	100	0

No credit will be granted after the census date for partial withdrawals, i.e. dropping individual courses. Any refunds owed to the student as a result of withdrawal will first be offset against any other amounts owed to the university.

Students who receive financial aid and withdraw prior to the completion of 61 percent of the enrollment period must repay Title IV funds (i.e. PLUS, Perkins, Subsidized and Unsubsidized Loans, Pell, SEOG, HETAP and CSAP) to their sources. The percentage is determined by dividing the number of days attended by the number of days in the semester.

**Summer Session Tuition and Fees**

For summer sessions, students who withdraw from the university prior to the census date will not be charged any tuition and fees. No proration of tuition and fees will be made for students who withdraw after the census date.

**Residence Hall and Apartment Rent**

For all semesters, students who withdraw through the census date will be charged a flat fee of \$200 (\$100 for summer sessions). No proration of rent will be made for students who withdraw after the census date.

**Meal Plans**

For all semesters, students who withdraw prior to the census date will be charged a flat fee of \$200 (\$100 for summer sessions). After census date and through the last day to withdraw and receive a grade of “W”, refunds will be prorated based on the number of weeks or actual usage, as applicable. No proration will be

made after the last day to withdraw and receive a grade of “W” for that semester.

## **ACADEMIC PROBATION AND SUSPENSION**

Academic performance is measured by grade points and grade point averages (GPA).

Each student must maintain a specified grade point average to remain in good standing and to prevent being placed on academic probation or being suspended for academic reasons.

Students are urged to confer regularly with their advisors to seek assistance in improving academic standing.

### **Academic Probation**

In those cases where academic suspension does not apply, a student will be on academic probation at the conclusion of any semester or summer session, regardless of the total number of credit hours attempted, in which the student has a cumulative GPA below a 2.0. (See “Academic Suspension policy.”) (Note: The minimum grade point average required for graduation from Radford is 2.0. Some majors require a higher GPA for graduation.)

Academic probation is an indication of serious academic deficiency and may lead to academic suspension. A student on academic probation may not carry more than 16 semester hours during a regular academic year semester.

## **ACADEMIC SUSPENSION**

### **New Student Policy**

Any new (freshman or transfer), full-time (as of census date) student who has a GPA below a 1.25 at the conclusion of the first semester of enrollment will be suspended and will not be allowed to continue in the next full semester or summer session. However, some of these academically unsuccessful new students – those judged to have the greatest potential for future success, based on multiple indicators – may be invited to participate in a contract-based program, SORTS (Students On the Road to Success), coordinated by the Office of New Student Programs. These students will be granted an

“exception to suspension” and will be allowed to take classes in the next full semester. A student in the SORTS program must meet all the requirements stipulated in the SORTS contract or his/her suspension will be reinstated immediately and will remain in effect through the following fall or spring semester. Students who were not invited to participate or who declined the university’s invitation to participate in SORTS may not enroll in the next regularly scheduled academic term but may apply for readmission for a future term.

### **Continuing Student Policy**

All academic suspensions for continuing students who are enrolled during one or more terms during the year (fall through summer) become effective at the end of the last summer session, regardless of the student’s enrollment for that specific term. Academic suspension occurs when such students have attempted a minimum of 30 credits at Radford University and have less than a 2.0 cumulative GPA on all courses taken at Radford University.

A continuing student will be informed of his or her impending academic suspension (effective at the end of the last summer session) at the conclusion of any term if the student has less than a 2.0 cumulative GPA and has attempted 30 or more credit hours.

No exceptions to the academic suspension policy will be made for continuing students.

### **Terms of Suspension**

A student suspended for the first time may not enroll in the next regularly scheduled semester. (Please see readmission information below.) A student who has been suspended once for academic reasons, is readmitted, and who falls below the suspension threshold for a second time is dismissed from the university. Such students are permanently ineligible to enroll at Radford in future semesters.

Occasionally, a student whose actions during a semester result in disciplinary suspension for the following semester subsequently earns grades for the semester that also cause him/her to fall below the academic suspension threshold. In such cases, the following semester’s suspension will be considered an academic suspension

for the purpose of determining the number of times a student has fallen below the academic suspension threshold.

A student on academic suspension from Radford University may receive transfer credit for work taken at another college or university during the period of enforced suspension. To ensure proper credit for any courses taken at another institution, permission must be obtained from the appropriate college dean prior to enrolling in such courses. While courses passed with a grade of “C” or better qualify for transfer (“C-” grades are not acceptable), these grades are not used in computing the Radford grade point average and the Radford repeat policy cannot be applied. In order to be eligible for readmission to Radford University, students must maintain a cumulative grade point average of 2.0 or higher on all work attempted at another college during the term(s) of their suspension. Readmission to the university, however, is never automatic. (See below.)

## **Readmission**

Students who do not maintain continuous enrollment at Radford University for any reason and wish to return must submit an Application for Readmission to the Office of the Registrar regardless of their academic status. A readmission application is necessary for all students wishing to re-enroll so that required adjustments in the student information system can be made and so the university can inform the student about academic advising, registration procedures, housing options, tuition charges and financial aid options.

Students who left the university in good academic standing (i.e., whose cumulative grade point average at Radford University is 2.0 or higher) and whose records include no conduct/disciplinary offenses or criminal offenses must apply for readmission no less than five days, but no more than six months prior to the beginning of the term in which re-enrollment is desired. Students who do not leave the university in good academic standing (i.e., whose grade point average at Radford University is less than 2.0) or whose records include conduct/disciplinary violations or criminal offenses must apply for readmission no less than 30 days, but no more than six months prior to the beginning of the term in which re-enrollment is desired.

Students who left the university are not automatically eligible to return, especially if they were suspended or left while on probation. Only those students who appear to have potential for success in general and within their selected major will be readmitted.

For those students who left the university in good academic standing, eligibility for readmission will be determined by the Office of the Registrar, provided that the student has maintained a minimum GPA of 2.00 at all schools attended since last enrolled at RU. Students who left RU in good standing but who have not maintained a minimum GPA of 2.00 at all schools attended since last enrolled at RU will have their eligibility for readmission determined by the Readmission Committee. These students’ applications for readmission should include a narrative explaining why the performance at other institutions was below average.

Students readmitted to Radford University who have been away for two or more consecutive semesters must meet the degree requirements in the *Radford University Undergraduate Catalog* at the time of readmission.

The Readmission Committee also will review the applications of those students who were academically suspended or who left the university while on academic probation. Academic Renewal may be an option for students who have been absent from the university for four or more years. To be eligible for readmission, students who did not leave the university in good standing must have maintained a minimum GPA of 2.00 at all institutions attended since leaving Radford University. Students are encouraged to send their transcripts to support their application at the time of reapplying. Final decisions about readmission may be deferred pending receipt of an official/final transcript.

The Readmission Committee will evaluate requests for readmission on the basis of the following criteria:

1. The student’s written statement in which:
  - a. compelling reasons are offered for wishing to return to Radford University;
  - b. the student’s activities or accomplishments during the period of suspension or absence are described; and

- c. the student indicates how and why academic performance will improve if readmitted.
2. Grade point deficit;
3. Number of “Repeats” available to use as strategy to bring up GPA;
4. Previous academic history;
5. Requested readmit major;
6. Total hours attempted and/or earned;
7. Evidence of improved academic performance at any institution attended while absent from Radford University.

Please note that the committee reviews only written materials and that individual appearances before the committee are not permitted.

Once a decision has been made regarding the application, the student will be notified in writing. Additionally, housing information will be sent when on-campus housing is requested. Registration information will be sent when it becomes available.

The Readmission Committee reserves the right to revoke any offer of readmission. The Readmission Committee will review the progress of all students returning to the university after a suspension or probation.

Continuation of enrollment is contingent upon satisfactory progress during the semester the student is readmitted. Satisfactory progress is defined by making up the grade point deficit by at least half. If the student has not made reasonable progress toward good academic standing, the student will not be permitted to enroll for the following semester.

## **ACADEMIC RENEWAL POLICY**

The Academic Renewal Policy is designed to benefit students who are returning to the university to continue pursuit of an initial undergraduate degree at Radford University after an extended absence of no less than four calendar years and whose cumulative GPA when they were last enrolled was less than a 2.0. (Students who have been dismissed from the university are not eligible for academic renewal. Students may use academic renewal only once.) Students who meet these conditions may apply for academic renewal simultaneously with their application for readmission. Such applications are made to the Office of the Registrar.

Academic renewal permits eligible students to re-enroll at the university to begin their studies anew. Under the provisions of academic renewal:

- a. All previously earned letter grades remain on the student’s official transcript, but the student carries no GPA at the time of re-enrollment.
- b. The student retains credit hours for all courses passed with a grade of “C” or better. The student loses credit for courses passed with a grade of “D.”

If academic renewal is granted, a student must earn a 2.0 grade point average or better for the first 12 hours attempted upon returning. Failure to do so will result in academic dismissal from the university and being ineligible for readmission. Students who have returned under the academic renewal policy must earn 60 credit hours after returning to be eligible to graduate with Latin Honors.

## **CLASS LOAD**

### **Fall and Spring Semesters**

Any undergraduate student who is carrying 12 or more semester hours of credit is considered to be a full-time student. To be eligible to live in a residence hall, a student must carry an academic load of nine or more semester hours.

The normal class load during a regular session is 15-16 semester hours. No student may carry more than 18 semester hours without the written permission of the student's academic dean.

### **Summer Sessions**

Any undergraduate student who enrolls in 12 or more semester hours of credit during one or any combination of summer sessions will be considered a full-time student.

Any undergraduate student who enrolls in six to 11 semester hours of credit during one or any combination of summer sessions will be considered a part-time student.

The maximum course loads permitted during the summer sessions are: Maymester - seven (7) credit hours\*; Summer I – ten (10) credit hours\* (\*or a combined total of ten (10) credit hours for Maymester and Summer I); Summer II – ten (10) credit hours; Summer III – eighteen (18) credit hours. A student may enroll for a maximum of eighteen (18) semester hours of credit using any combination of enrollments in the summer session. No student may attempt more than the maximum number of credit hours per session or for the entire summer without the written permission of the student's academic dean.

## **RECORDS AND REPORTS OF STUDENTS**

Grades filed with the Office of the Registrar are final, except where an error of judgment has occurred or an error has been made in computation or transcription. Shortly after the close of each semester or summer term, currently enrolled students receive password-secure Internet access to their grade report showing the final grade received in each course for which they

were enrolled that particular semester or summer term.

A transcript is the official record, compiled by the registrar, of a student's academic career. For each semester or summer term, the transcript shows the courses, credits and grades; semester or summer term grade point average; and notice of academic suspension or withdrawal. Transfer credit also is recorded, but without grades.

The completed transcript records the degree and major, minor and/or concentration as appropriate, final graduation grade point average and the date the degree was conferred.

Transcripts are issued upon the receipt of a signed, written request. There is no charge for this service. There is a limit of 10 transcripts issued per request, unless otherwise approved by the registrar. Transcript requests are processed in the order of receipt and typically take five-seven working days to process.

## **STUDENT RECORD POLICY (Confidentiality of Student Records)**

### **Family Educational Rights and Privacy Act (FERPA)**

Radford University student record policies and practices are in full compliance with state and federal laws (FERPA).

The university will not release information about a student from records, except directory information, to people (including parents) other than a specified list of exceptions without obtaining the written consent of the student.

Upon request, the university will grant students who are or have been in attendance access to their educational records, except those excluded by law, and will provide an opportunity for a hearing to challenge such records.

University and federal law does permit the university to release information it has identified as directory information with respect to each student unless the student informs the university that any and all information designated should not be released without the student's prior consent. Forms to request a restricted release of directory information are available online and should be filed at the Office of the Registrar. While the university understands that there are sometimes very legitimate reasons why a stu-

dent may want to restrict their directory information, please note that placing a restriction on the release of a student's information means that RU personnel can't even acknowledge the existence of the student to a third party. This may cause the student and their parents some inconveniences related to the verification of enrollment and/or graduation for insurance and loan deferment purposes.

Radford University has identified the following as directory information.

- Student's name, date-of-birth, local and home address, phone listing and e-mail address
- Whether a student is currently enrolled
- Major field of study
- Participation in officially recognized activities and sports
- Weight and height of members of athletic teams
- Dates of attendance
- Degrees and awards received

Students should report any change of name, address, or marital status to the Office of the Registrar so their university records can be corrected.

A full statement of the Family Educational Rights and Privacy Act and information explaining how students may exercise the rights accorded them by this policy are posted to the RU website and are available from the Office of the University Registrar and the Dean of Students Office. The restriction on the release of non-directory information does not apply to university officials or to designated persons or agencies operating on behalf of the university. For example, faculty, advisors and academic support staff, may access non-directory information needed to perform their official responsibilities. Selected individuals or agencies operating for the university, such as the National Student Clearinghouse, may have access to academic records to verify enrollments and degrees. The university may disclose records to state agencies for the purpose of program review and evaluation.

If a student has a complaint about the university's compliance with state or federal laws concerning student records, the student is encouraged to register that complaint with a university official. While most concerns can and will be

addressed promptly by the university, students may file complaints with the U.S. Department of Education concerning alleged failures by the university to comply with the requirements of the Family Educational Rights and Privacy Act.

## HONOR SYSTEM

The Radford University Honor System provides the foundation for a university community in which freedom, trust and respect can prevail. In accepting admission to Radford University, each student makes a commitment to support and uphold the Honor System without compromise or exception. Individuals have the responsibility to be honorable in their own conduct and to insist other students act honorably.

Lying, cheating and stealing are considered to be acts of dishonor, and will, therefore, cause a student to be subject to temporary or permanent suspension from the university community. Students who commit an honor violation or any members of the Radford University community who have knowledge that a student has committed an honor violation are expected to comply with the reporting procedures.

The Honor Pledge: I shall uphold the values and ideals of Radford University by engaging in responsible behavior and striving always to be accountable for my actions while holding myself and others to the highest moral and ethical standards of academic integrity and good citizenship as defined in the Standards of Student Conduct.

Students are expected to become familiar with the Honor Code and the Standards of Student Conduct. For more information about the Honor Code and the Standards of Student Conduct, please refer to the 2011-2012 copy of the *Standards of Student Conduct* available in the University Planner, in the Dean of Students Office and/or online at: <http://www.radford.edu/~dos-web/studentconduct.htm>.

## COMPLETING A DEGREE

### Degree Requirements

No fewer than 45 semester hours must be earned at Radford University to be eligible for graduation. Thirty of the last 39 hours of credit required for the degree must be completed in residency. In addition, 50 percent of the semester hours required for a major or minor (as defined by the department) must be taken at Radford University and no more than six (6) credit hours of Independent Study coursework can be used toward graduation requirements.

Students in the Virginia Western Community College partnership programs must complete 25 percent of the semester hours at Radford University.

The total number of grade points earned by students, both overall and in their major field, must be at least twice the total semester hours of credit attempted, both overall and in their major at Radford. Students in teaching, nursing and certain other fields must earn a higher grade point average. Specific requirements for each major are listed under the appropriate department sections of this catalog. As a minimum, 120 semester hours are required for graduation.

### Fulfilling More Than One Requirement with the Same Credit/Course

1. Courses used to fulfill Core Curriculum requirements can also be used to fulfill major and/or minor requirements, but not the B.A. requirement.
2. Courses used to fulfill the B.S. requirement can also be used for minor requirements, but not Core Curriculum or major requirements.
3. Courses used to fulfill major requirements can also be used to fulfill minor requirements, unless otherwise specified by the department. (See p. 68 for definitions of major, minors, concentrations and options.)
4. Courses used to fulfill major or minor requirements cannot be used to fulfill concentrations or option requirements within Interdisciplinary Studies.
5. Students who are fulfilling the requirements for B.S. degrees in two different majors (i.e., pursuing a double major) must fulfill the B.S. requirements for each. However, if

the student successfully completes common course(s) that meet the B.S. requirements for each major, he/she will fulfill the B.S. requirements for both majors simultaneously.

### Completing a Second Bachelor's Degree – Previous RU Graduate

Please refer to p. 18 of this catalog.

### Completing a Second Bachelor's Degree – Transfer Student

Please refer to p. 17 of this catalog.

## GRADUATION POLICY

A currently enrolled full-time student may meet the graduation requirements listed in the *Radford University Undergraduate Catalog* in effect at the time of the student's initial enrollment at Radford, or the individual may select to meet the requirements in any subsequent catalog published between enrollment and graduation, as long as the catalog is no more than five years old. A student may not follow requirements for graduation listed in a catalog in effect prior to the student's enrollment at Radford.

A regularly enrolled part-time student may complete the graduation requirements in effect when the student enrolled at Radford, or the student may complete requirements listed in any subsequent catalog, as long as the catalog is no more than seven years old when the student graduates.

Whichever option is chosen, it is highly recommended that students maintain continuous enrollment at Radford to avoid jeopardizing their preferred catalog year. Academic departments reserve the right to determine the requirements for graduation for students who change majors following their enrollment at Radford University. (See below.)

Any course work in the major more than 10 years old at the time of matriculation may be reviewed by the chair of the department in which the student is housed, and the chair may require the student to take more current courses in lieu of those previously taken.

Students so affected may request an opportunity to demonstrate currency in the area(s)

covered by those courses previously taken. Transfer courses may not be used toward a Radford University degree if they are more than 10 years old at the time of a student's matriculation.

Students who have been absent from the university for two or more consecutive semesters must meet the degree requirements in force in the *Radford University Undergraduate Catalog* at the time of graduation.

Each student who expects to complete requirements for a degree must submit a graduation application to the student's college advising center, except for students with majors in Humanities and Behavioral Sciences and Science and Technology, where applications must be submitted directly to the student's major department.

### **Requirements for Students who Change Majors**

Ordinarily, students who change majors following their enrollment at Radford University will retain the right to choose the catalog specifying their graduation requirements, as noted in the policy above. However, so that graduates in rapidly changing disciplines might not be disadvantaged by meeting obsolete requirements in outdated catalogs, academic departments reserve the right to determine the requirements for graduation (i.e., to require that students adopt requirements as listed in the catalog in effect at the time of the major change) for students who change majors. Students must ascertain which requirements they will be expected to fulfill before making the final decision about changing majors.

### **Graduation Application Submission Deadlines**

<b>Requirements To Be Completed By</b>	<b>Application Due</b>
--	------------------------

Spring Semester 2012	September 16, 2011
Summer 2012 graduates	September 16, 2011
Participating in 2012 Spring Commencement (with petition)	
Fall Semester 2012	February 3, 2011

### **COMMENCEMENT EXERCISES**

Students completing degree requirements during spring and fall semesters are urged to attend commencement unless extenuating cir-

cumstances justify their absence. Diplomas will be mailed to students after confirmation that their degree requirements have been completed.

### **Participation in Commencement**

Radford University restricts participation in commencement exercises to those students who will complete their degree requirements by the time of commencement or who can complete the requirements during the immediately following summer session. Those who wish to participate in commencement ceremonies who will not have met all requirements at the time of commencement must submit a declaration of their intent to participate along with the application for graduation.

Graduation applications and petitions to participate in commencement exercises must be turned in to the appropriate advising center (or student's major department within the Colleges of Humanities and Behavioral Sciences or Science and Technology).

### **Graduation With Honors**

Radford University awards two types of honors degrees, Latin Honors and Honors in the Major through the Honors Academy.

Students whose cumulative grade point average in all courses attempted at Radford University is greater than or equal to 3.50, but less than 3.70, will graduate cum laude. Those whose cumulative grade point average is greater than or equal to 3.70, but less than 3.85, will graduate magna cum laude. Those whose cumulative grade point average is 3.85 or greater will graduate summa cum laude. To be eligible to receive Latin Honors, a student must have earned a minimum of 60 semester hours at Radford University. Students who have returned under the Academic Renewal Policy must earn 60 credit hours after returning to be eligible to graduate with Latin Honors. Students whose cumulative grade point average is greater than or equal to 3.50 but who do not earn 60 credit hours at Radford University will graduate "With Distinction."

A student who successfully completes Honors Academy requirements will receive a bachelor's degree with Honors in the Major. For more information on the Honors Academy, see p. 81.

## Licensure for Teaching

Students interested in pursuing licensure to teach in Virginia and elsewhere must complete the approved teacher education program and all licensure requirements. Please see the Center for Academic Advising and Student Support Services or the Field Experience Office in Peters Hall 104 for more information. All the applications for licensure must be submitted through the Center for Academic Advising and Student Support Services.

## Graduate Credit for Radford University Undergraduates

Seniors with an overall grade point average at Radford University of 3.00 or better may be permitted to take up to eight credit hours of graduate-level courses during their final year of undergraduate work. Students have the option of counting the course(s) toward their undergraduate degree or toward a graduate degree, if all admission requirements are met. Graduate courses taken to meet baccalaureate requirements may not be used toward a graduate degree, except in approved accelerated bachelor's/master's programs. (See below.)

Undergraduate students who wish to take courses for graduate credit must receive specific approval from the instructor and the dean of the Graduate College. Request forms are available online or in the Graduate College Office in Lucas Hall. For complete information concerning graduate programs and entrance requirements, consult the *Radford University Graduate Catalog*.

## ACCELERATED BACHELOR'S/MASTER'S PROGRAMS

Students accepted for approved bachelor's/master's accelerated programs may take up to 12 graduate credits and these may count toward both the bachelor's and master's degrees. Students in the RN/BSN/MSN accelerated program may count up to 15 graduate credits toward both the BSN and MSN degrees. To be eligible for participation in an accelerated degree program, students must have completed at least 60 undergraduate credits and have a cumulative GPA of at least 3.00. Individual departments may impose stricter eligibility requirements. Admission

and completion requirements for specific accelerated degree programs are described in the catalog.

The objective of accelerated bachelor's/master's degree programs is to provide a means by which exceptional undergraduate students at Radford University may complete the requirements for both the baccalaureate and master's degrees at an accelerated pace.

### Eligibility

Students must have completed a minimum of sixty (60) undergraduate credit hours and have at least 24 credits remaining in their undergraduate programs. Transfer students must have completed a minimum of two semesters as a full-time student at Radford University, a minimum of 24 hours. Students must have a minimum accumulated grade point average (GPA) of 3.00.

### Application to an Accelerated Bachelor's/Master's Degree Program

A prospective student should meet with the Graduate Program coordinator to review the requirements for an accelerated bachelor's and master's degree program. Students applying to an accelerated program must submit:

- Application for Accelerated Bachelor's/Master's Programs form;
- Transcripts of any courses taken at a college or university other than Radford University;
- "Application for Graduate Admission" form;
- \$50 non-refundable application fee;
- Appropriate test scores, if required by the graduate degree program to which the prospective student is applying. If scores are required, they must be submitted no later than the second week of the term in which conferral of the bachelor's degree is anticipated;
- Any other materials required for admission to the graduate program to which the applicant is seeking admission.

Upon review of the materials submitted, a letter of acceptance (or denial) to the master's program, contingent on meeting the accelerated requirements and completing the bachelor's degree, will be sent to the student.

## Participation and Graduation

Students must complete the bachelor's degree prior to entering the master's program. Students in an accelerated program may not elect to by-pass the baccalaureate degree. Students must receive a grade of "B" or better in the double counted graduate-level courses. Courses with a grade of "C" or below cannot be double counted between the two degrees. No more than twelve (12) hours of graduate work may be counted towards the requirements of both degrees (15 hours in the RN/BSN/MSN program). Students must complete the master's degree within six years of the start of their first graduate course. If the master's program is not completed within these time limits, none of the graduate courses taken as an undergraduate will be counted toward the master's degree. Permission to pursue an accelerated degree program does not guarantee an admission to the Graduate College. Admission is contingent on meeting eligibility requirements at the time of entering the graduate program.

### Withdrawal/Ineligibility

A student may at any time withdraw from an approved accelerated program, by informing the Graduate Program coordinator in writing. A copy of this should be sent to the Graduate College. If a student completes the baccalaureate degree requirements with an accumulated GPA of less than 3.0, then he/she is no longer eligible to pursue the accelerated program. Individual departments may have higher requirements and a failure to meet these requirements will make a student ineligible to participate in the accelerated program. A student who does not follow the approved accelerated degree requirements may become ineligible to participate in the accelerated program. A student who is ineligible to participate in (or withdraws from) the accelerated program, cannot double count any courses for both bachelor's and master's degrees.

### Approved Accelerated Degree Program Offerings

- Corporate and Professional Communication (p. 167)
- Criminal Justice (p. 141)

## EXCEPTION TO ACADEMIC POLICY

The *Radford University Undergraduate Catalog* is the basic authority for academic requirements at Radford University. All students are expected to follow the catalog in the pursuit of their degrees. On occasion, extraordinary circumstances may, however, justify minor departures from the catalog requirements. Students who believe their situation warrants a deviation from academic policy may petition for an exception. Students should consult with their advising coordinator to explore the feasibility of petitioning for an exception to academic policy.

Undergraduate students who need to petition for an exception to academic policy must fill out the Undergraduate Student Academic Petition form, available in advising centers. There are several academic requirements for which exceptions are never made, even through the academic petition process: the minimum grade point average (2.00) to graduate, the minimum number of semester hours (120) to graduate; the minimum number of semesters hours (45) earned at Radford University to graduate (unless the student is graduating under the provisions of an articulation agreement between Radford University and a Virginia community college in which the possibility of graduating with fewer than 45 Radford University hours is clearly stipulated); the number of class withdrawals (5) a student may use; the number of repeats (3) permitted; the number of earned credits (60) at Radford needed to qualify for Latin Honors.

In addition, no exceptions to the academic suspension policy will be made for continuing students. Finally, students who are dismissed from the university for academic reasons may not petition for readmission. (See "Terms of Suspension," p. 59.)

The college dean of the petitioning student has the authority to approve or disapprove the student's request for an exception to academic policy upon review of recommendations from the student's academic advisor, department chair and instructor (as appropriate), and – if deemed necessary – in consultation with the registrar. The dean will submit the form to the Office of the Registrar.

# ACADEMIC PROGRAMS

Radford University offers curricula leading to six undergraduate degrees: the Bachelor of Arts, Bachelor of Social Work, Bachelor of Science in Nursing, Bachelor of Science, Bachelor of Fine Arts, Bachelor of Music and Bachelor of Business Administration. For information about graduate programs, consult the *Radford University Graduate Catalog*.

In the Bachelor of Arts degree, emphasis is on work in the academic fields and the study of a foreign language is required. The Bachelor of Science, Bachelor of Social Work and Bachelor of Science in Nursing degrees are offered for work in academic as well as in vocational and professional fields; the study of a foreign language is not required. Courses in professional education may be offered to satisfy a part of the requirement for the Bachelor of Science degree. The Bachelor of Business Administration degree is for students who wish to work in national or multinational businesses or prepare for graduate work in business. (See “Academic Terminology” below for additional information about degrees, majors, minors, concentrations, options, and programs.)

For the Bachelor of Arts, Bachelor of Science, Bachelor of Social Work and Bachelor of Business Administration degree programs, the minimum requirement for graduation is at least 120 semester hours of passing course work. The Bachelor of Fine Arts and Bachelor of Music degree programs place a heavy emphasis on work in the major field. In these two professional degree programs, students may have to take course work in excess of 120 hours; thus, close consultation with the advisor is recommended. (See p. 202 and 215.)

In consultation with an advisor from a chosen discipline, undergraduates plan an academic program consisting of Core Curriculum courses, major courses, and electives. Students should choose their departmental major as soon as possible and not later than the end of the sophomore year. At least half of the hours counted in the major and minor must be earned at Radford University.

## Academic Terminology

**Degree:** A degree represents the academic level of a program and the general category into which it falls, e.g. Bachelor of Arts, Bachelor of Science. At Radford University, the term Arts in an undergraduate degree generally implies a foreign language requirement. The minimum number of semester hours for a Radford University undergraduate degree is 120.

**Major:** A major represents a student’s principal field of study; that is, the academic discipline he or she wishes to study intensively, for example, Psychology, Music and Accounting. The range of credits required for an undergraduate major is 30 to 90 semester hours depending upon the field of study.

**Program:** The term program does not have a unique definition. One use of the term involves a combination of a major and a degree, e.g., Bachelor of Science in Chemistry or Bachelor of Business Administration in Accounting. Occasionally, a program may consist only of a degree and not have a specific major, as in the Bachelor of Social Work. Program may also be used in a more generic sense to modify degree/major combinations, as in Teacher Education Program.

**Minor:** A minor represents a student’s secondary field of study and is different from the major. This distinguishes the minor from concentrations and options. The range for the number of semester hours in an undergraduate minor is 15 to 24.

**Concentration:** A concentration is a field of study within a major. Some examples are: Ballet within Dance and Public Relations within Communication. The number of semester hours for a concentration varies, but is always included within the semester hours for the major. This distinguishes concentrations from options, which represent semester hours beyond the major.

**Option:** An option is a set of related courses and/or experiences that complement the major. The principal example is in education where Elementary, Middle and other options complement the Interdisciplinary Studies major by preparing the student for a specific career path. As noted

above, option semester hours are in addition to those for the major.

### **Courses of Study**

Radford combines a traditional liberal arts education with a number of professional programs in six undergraduate colleges: College of Business and Economics, College of Education and Human Development, College of Humanities and Behavioral Sciences, College of Science and Technology, Waldron College of Health and Human Services and College of Visual and Performing Arts. Undergraduate majors, including areas of concentration within each major, are:

#### **Accounting**

#### **Anthropological Sciences**

Forensic Anthropology

#### **Art**

Art Education\*

Art History and Museum Studies

Graphic Design

#### **Athletic Training**

#### **Biology**

Biotechnology

General Biology

Molecular Biology

Environmental Biology

Medical Technology

Pre-Health

Biology Education\*

#### **Chemistry**

Professional Chemist

Pre-Health Professional

Biochemistry

Forensics

Chemistry Education\*

#### **Communication**

Public Relations

Communication Studies

#### **Communication Sciences and Disorders**

#### **Computer Science and Technology**

Computer Science

Database

Software Engineering

Networks

#### **Criminal Justice**

#### **Dance**

#### **Design**

Fashion Design

Interior Design

Merchandising for Design

Design Management

Design Culture

#### **Economics**

Basic

International

#### **English**

English Education\*

Technical and Business Writing

#### **Exercise, Sport and Health Education**

Exercise and Sport Science

Physical and Health Education Teaching

Sport and Wellness Leadership

Health Education and Health Promotion

#### **Finance**

#### **Foreign Languages and Literatures**

French

German

Spanish

#### **Geospatial Science**

Environmental

Geoinformatics

#### **Geology**

Earth Sciences Education\*

Engineering and Environmental Geosciences

General Geology

#### **History**

History\*

#### **Information Science and Systems**

Information Systems

Web Development

#### **Interdisciplinary Studies**

Early Childhood Education/Early

Childhood Special Education with

5th year M.S. and licensure

Elementary Education

Liberal Arts - Non-teaching

Special Education: Deaf and Hard

of Hearing with licensure in Hearing

Impairment

Special Education: General Curriculum

with 5th year M.S.

Middle Education Licensure

#### **Management**

Entrepreneurship

#### **Marketing**

#### **Mathematics**

Applied Mathematics

Statistics

Mathematics Education\*

## Media Studies

Advertising  
Journalism  
Production Technology  
Web Design

## Music

Music  
Music Business  
Music Education  
Music Therapy

## Nursing

## Nutrition and Dietetics

Dietetics

## Philosophy and Religious Studies

Philosophy  
Religious Studies

## Physics

Physics  
Physics Education  
Earth and Space Science

## Political Science

General  
Public Administration and Public Service

## Psychology

## Recreation, Parks and Tourism

Outdoor Recreation  
Tourism and Special Events  
Recreation Therapy

## Social Science

## Social Work

## Sociology

## Theatre

\*denotes programs that can be pursued for teaching licensure, not a defined degree program

## Academic Minors

To graduate with a minor, a student must have a 2.0 or higher GPA in all courses required for the minor, and should be officially registered for the minor at least one semester prior to graduation. Fifty percent of the hours required for the minor must be completed at Radford University. Courses used to fulfill major or minor requirements cannot be used to fulfill concentrations or option requirements within Interdisciplinary Studies.

Minors are available in the following areas:

Anthropological Sciences	(p. 192)
Appalachian Studies	(p. 97)
Art	(p. 208)
Art History	(p. 208)
Asian Martial Arts	(p. 107)
Astronomy	(p. 200)
Biology	(p. 176)
Business Administration	(p. 84)
Chemistry	(p. 180)
Cinematic Arts	
Interdisciplinary	(p. 176)
Classical Humanities	(p. 145)
Coaching Education	(p. 106)
Communication	(p. 163)
Computer Science	(p. 185)
Criminal Justice	(p. 140)
Dance	(p. 223)
Design Appreciation	(p. 213)
Economics	(p. 87)
English	(p. 144)
Entrepreneurship	(p. 89)
Exercise and Sport Science	(p. 106)
Forensic Science -	
Interdisciplinary	(p. 192)
Forensic Studies -	
Interdisciplinary	(p. 140)
Foreign Languages	(p. 145)
Geospatial Science	(p. 195)
Geology	(p. 197)
Interdisciplinary Minor in	
Health and Aging	(p. 131)
History	(p. 148)
Information Systems	(p. 185)
Information Technology	(p. 186)
Intercultural Studies	(p. 146)
International Studies	(p. 135)
Leadership and Military	
Science	(p. 151)
Management	(p. 89)
Marketing	(p. 90)
Mathematics	(p. 189)
Media Studies	(p. 166)
Music History and	
Literature	(p. 221)
Music Performance	(p. 221)
Peace Studies	(p. 137)
Philosophy	(p. 153)
Physics	(p. 200)

Political Science	(p. 156)
Psychology	(p. 157)
Public Relations	(p. 163)
Religious Studies	(p. 154)
Special Education	(p. 117)
Sport Administration	(p. 107)
Sociology	(p. 161)
Statistics	(p. 189)
Technical and Business Writing	(p. 144)
Theatre	(p. 226)
Women's Studies	(p. 136)

Knowledge, two courses (6 hours) in National and International Perspectives, and three courses (9-11 hours) in Supporting Skills and Knowledge.

### UNIVERSITY CORE

- A. Core Foundations (12 hours)
  - CORE 101, CORE 102, CORE 201, and CORE 202
- B. Core Skills and Knowledge (16 hours)
  - Mathematical Sciences (3)
  - Natural Sciences (4)
  - Humanities (3)
  - Visual and Performing Arts (3)
  - Social and Behavioral Sciences (3)

## REQUIREMENTS FOR ALL DEGREES

To earn an undergraduate degree from Radford University, students must fulfill both Core Curriculum requirements and the requirements associated with a specific degree and major, as well as sufficient electives to complete the minimum semester hours required for graduation.

Core Curriculum requirements are detailed below. They are followed by an outline of requirements associated with specific degrees (B.A., B.S., etc.). Details of the requirements for specific degrees and majors can be found in the department sections in this catalog beginning on p. 82.

### Core Curriculum Program

Radford University is committed to the development of mature, responsible, well-educated citizens. In addition to acquiring a diverse body of knowledge, RU graduates will possess a love of learning and a range of intellectual skills that enable them to meet the challenges and realize the promise of living in a complex, multicultural, and ever-changing world.

The Core Curriculum places a clear emphasis on the competencies central to a liberal arts education for the modern world. The centerpiece of this program is a common experience for all students in Core Foundations. In this required four-course sequence (12 hours), students must demonstrate competencies rooted in the principles of grammar, rhetoric, and logic – the classical education known as the trivium. The Core Curriculum also includes five required courses (16 hours) in Core Skills and

### COLLEGE CORE

- A. National and International Perspectives (6 hours)
  - U.S. Perspectives (3)
  - Global Perspectives (3)
- B. Supporting Skills and Knowledge (9-11 hours)
  - Mathematical Sciences or Natural Sciences (3 or 4)
  - Humanities, Visual and Performing Arts or Foreign Languages (3 or 4)
  - Social and Behavioral Sciences or Health and Wellness (3)

To meet their academic needs, students in particular colleges and/or departments/schools may be limited in which courses they use to satisfy core curriculum requirements. Students should consult with their advisors for information about specific college or departmental/school requirements in these areas.

Students are advised to take CORE 101 during their first semester of enrollment or receive transfer course equivalency credit. In addition, students are advised to take University Core A courses in sequence each semester, excluding summers, until the sequence is successfully completed.

So that a student's RU education might have as much disciplinary breadth as possible, students must fulfill Core Curriculum requirements with courses with prefixes different from that of their major. An exception may be made for one course. Furthermore, students are restricted from taking more than one course with the same

prefix to fulfill requirements in University Core B; and students are restricted from taking more than one course with the same prefix to fulfill requirements in College Core A.

Students must successfully complete 43-45 hours in the Core Curriculum.

To fulfill the mission of the Core Curriculum, Radford University has designed a program with a number of general and specific learning outcomes that will be met by all undergraduate students.

### **University Core A. Core Foundations (12 hours required)**

Upon completion of University Core A (Core Foundations), Radford University students will have achieved competency in four key concept areas: written communications, oral communication, critical thinking, and technology/information literacy.

Goal 1: Radford University students will demonstrate competency in critical reading, standard written English, audience-specific writing, clear and effective prose, and other elements of composition.

- Radford University students will be able to:
- effectively use standard written English (including grammar, punctuation, spelling and sentence structure) to construct a thesis-driven essay supported by reasonable arguments
  - demonstrate the writing process through invention, organization, drafting, revision, editing, proofreading and presentation
  - choose appropriate genres and styles when writing for a variety of different audiences
  - describe and evaluate critically a variety of print and other sources, synthesize and document material appropriately and avoid plagiarism when developing a research paper

Goal 2: Radford University students will be able to communicate orally in clear and coherent language appropriate to purpose, occasion and audience.

- Radford University students will be able to:
- identify and explain components of and influences on the communication process in interpersonal, small group and public speaking contexts

- demonstrate effective listening and critical analysis skills in interpersonal, small group and public speaking contexts
- identify and apply communication strategies appropriate to audiences in interpersonal, small group and public speaking contexts
- identify and demonstrate communication skills appropriate in interpersonal, small group and public speaking contexts

Goal 3: Radford University students will learn to distinguish knowledge from opinion, challenge ideas and develop reasonable strategies for belief formation.

- Radford University students will be able to:
- apply the processes of deduction, induction, and other key elements of logical reasoning
  - create a well-reasoned argument by evaluating the validity of ideas and information, providing evidence and support and arguing against competing claims when applicable
  - analyze issues, solve problems and apply reasoning to everyday situations
  - evaluate written and verbal arguments by discerning any logical fallacies, distinguishing between documented fact and opinion, examining explicit and implicit assumptions and assessing the use of evidence to draw inferences and conclusions

Goal 4: Radford University students will be able to acquire, analyze and synthesize digital and print information and explain how digital information is organized and communicated.

- Radford University students will be able to:
- explain contemporary technological trends and issues
  - utilize industry standard technologies as appropriate for academic purposes
  - identify economic, societal, legal, privacy and ethical considerations for using and sharing digital and print information
  - demonstrate the use of basic research techniques to locate information from a variety of electronic and print sources
  - apply appropriate modes of inquiry to evaluate digital and print information in terms of credibility, reliability and accuracy

### **Required (12 hours)**

All students must pass each of the following four courses, which should be completed during the student's first four semesters:

CORE 101. Essentials of Written and Oral Communication.\*

CORE 102. Advanced Written and Oral Communication.\*

CORE 201. Topics in Critical Inquiry.

CORE 202. Topics in Ethical Inquiry.

CORE 103. Honors Written and Oral Communication\*

\*Class will replace CORE 101 and CORE 102 for those new students in the RU Honors Academy whose backgrounds and abilities indicate that they are prepared for this course.

### **University Core B. Core Skills and Knowledge (16 hours required)**

To meet their academic needs, particular colleges and/or departments/schools may recommend that students select specific courses to satisfy University Core B requirements. Students should consult with their advisors for information about specific college or departmental/school recommendations in University Core B.

Upon completion of University Core B (Core Skills and Knowledge), Radford University students will have achieved competency in five key concept areas: mathematical sciences, natural sciences, humanities, visual and performing arts, and social/behavioral sciences.

Goal 5: Radford University students will be able to use the tools of mathematics and quantitative reasoning to conceptualize and solve problems.

Radford University students will be able to:

- identify and interpret relationships among numeric, symbolic and graphical information
- generate mathematical models using numeric, symbolic and graphical information for use in real-world applications
- solve problems using numeric, symbolic and graphical information

The following courses have been approved to meet University Core B Core Curriculum Requirements in the Mathematical Sciences:

### **Required (3 hours)**

All students must pass one of the following courses in the Mathematical Sciences:

MATH 111:112. Math Content for Teachers I and II.

MATH 114. Math and Human Society.

MATH 116. Math and Humanity.

MATH 125. Finite Mathematics for Business and Economics.

MATH 126. Business Calculus.

MATH 132. Honors Applications of Mathematics.

MATH 137. College Algebra.

MATH 138. Precalculus Function Analysis.

MATH 151:152. Calculus and Analytic Geometry.

Goal 6: Radford University students will understand the methodologies of scientific inquiry; think critically about scientific issues and understand that the results of scientific research can be critically interpreted; participate in informed discussions of scientific issues; and describe the natural/physical world within the context of a specific scientific discipline.

Radford University students will be able to:

- employ scientific methods to gather and analyze data and test hypotheses in a laboratory setting
- distinguish between findings that are based upon empirical data and those that are not
- explain the relationships among the sciences and between science, technology, popular media and contemporary issues in society
- explain how scientific ideas are developed or modified over time based on evidence
- use the language of science to explain scientific principles within the context of a specific scientific discipline

The following courses have been approved to meet University Core B Core Curriculum Requirements in the Natural Sciences:

### **Required (4 hours)**

All students must pass one of the following courses in the Natural Sciences:

ASTR 111:112. General Astronomy.

BIOL 103. Environmental Biology.

BIOL 104. Human Biology.

BIOL 105. Biology for Health Sciences.  
CHEM 101:102. General Chemistry.  
CHEM 120. Chemistry of Life.  
GEOL 100. Earth Resources and Natural Hazards.  
GEOL 105:106. Exploring Earth; Earth Through Time.  
PHYS 111:112. General Physics.  
PHYS 221:222. Physics.

Goal 7: Radford University students will understand the importance of the search for answers to humankind's most fundamental and profound questions and the ways in which these questions have been examined.

- Radford University students will be able to:
- explain the nature and methods of inquiry in the humanities
  - describe and explain differing views of the meaning, value and purpose of life
  - explain historical, philosophical, religious or literary sources according to societal or cultural perspectives
  - interpret and critically evaluate historical, philosophical, religious or literary expressions of the human experience

The following courses have been approved to meet University Core B Core Curriculum Requirements in the Humanities:

**Required (3 hours)**

All students must pass one of the following courses in the Humanities:

ENGL 200. Literary Texts and Contexts.  
HIST 101. World History to 1500.  
HIST 102. World History after 1500.  
PHIL 111. Knowledge, Reality and Human Condition.  
PHIL 112. Ethics and Society.  
PHIL 114. Origins of Western Philosophy.  
POSC 110. Introduction to Politics.  
RELN 111. Introduction to Religion.  
RELN 112. Survey of World Religions.  
RELN 203. Sacred Texts of the West.  
RELN 206. Survey of Religious Experiences.

Goal 8: Radford University students will experience and analyze ways in which the visual and performing arts reflect and communicate aspects of the human experience.

- Radford University students will be able to:
- analyze works of art in terms of the medium's distinctive language and syntax
  - identify and explain how works of art express human values and experiences within specific historical, cultural and social contexts
  - identify and explain how the visual and performing arts have been used as vehicles for influencing culture
  - evaluate works of art from the perspectives of aesthetic and critical criteria

The following courses have been approved to meet University Core B Core Curriculum Requirements in the Visual and Performing Arts:

**Required (3 hours)**

All students must pass one of the following courses in the Visual and Performing Arts:

ART 111. Art Appreciation.  
ART 215. Art History Survey: Prehistory to Gothic.  
ART 216. Art History Survey: Renaissance to Contemporary.  
CVPA 266. Travel Study in Visual and Performing Arts.  
DNCE 111. Dance Appreciation.  
MUSC 100. Introduction to Music Literature.  
MUSC 121. Art of Music.  
MUSC 123. Art of Jazz.  
THEA 100. Theatre Appreciation.  
THEA 180. Introduction to World Cinema.

Goal 9: Radford University students will understand how individual, social, or cultural factors influence human behavior and shape reciprocal relationships between people and society.

- Radford University students will be able to:
- explain the social or cultural factors that shape individuals' ideas and behaviors
  - explain how individual and collective behaviors shape societies and cultures
  - explain social or behavioral science concept

- use social or behavioral science concepts to interpret real-world problems, including the underlying origins of such problems

The following courses have been approved to meet University Core B Core Curriculum Requirements in the Social and Behavioral Sciences:

### **Required (3 hours)**

All students must pass one of the following courses in the Social and Behavioral Sciences:

ANSC 101. Human Origins and Biocultural Evolution.  
 APST 200. Introducing Appalachia.  
 ECON 105. Principles of Macroeconomics.  
 ECON 106. Principles of Microeconomics.  
 GEOG 101. Europe and the Americas.  
 GEOG 102. Africa and Asia.  
 GEOG 103. Introduction to Human Geography.  
 HIST 111. U.S. History to 1865.  
 HIST 112. U.S. History since 1865.  
 POSC 120. Introduction to American Government.  
 PSYC 121. Introductory Psychology.  
 RELN 205. Religion and Culture.  
 SOCY 110. Introduction to Sociology.  
 SOCY 121. Understanding Cultures.

### **College Core A. National and International Perspectives (6 hours required)**

To meet their academic needs, students in particular colleges and/or departments/schools may be limited as to which courses they use to satisfy College Core A and College Core B requirements. Students should consult with their advisors for information about specific college or departmental/school requirements in College Core A and College Core B.

Upon completion of College Core A (National and International Perspectives), Radford University students will have achieved competency in two key concept areas: U.S. Perspectives and Global Perspectives.

Goal 10: Radford University students will understand how social and cultural (for example, political, historical, economic, environmental, religious or geographic) forces shape the American experience.

- Radford University students will be able to:
  - explain basic facets of the American experience with attention to unity and diversity in American society
  - use material studied to explain contemporary issues in the United States
  - evaluate common institutions in American society and how they have affected or continue to affect, different groups

### **Required (3 hours)**

All students must pass one of the following courses in U.S. Perspectives:

APST 200. Introducing Appalachia.  
 ECON 101. Survey of Economics.  
 ECON 105. Principles of Macroeconomics.  
 ECON 106. Principles of Microeconomics.  
 ENGL 203. Readings in American Literature.  
 GEOG 201. North America.  
 GEOG 202. Commonwealth of Virginia.  
 GEOG 203. Appalachian Geography.  
 HIST 111. U.S. History to 1865.  
 HIST 112. U.S. History since 1865.  
 POSC 120. Introduction to American Government.  
 SOCY 110. Introduction to Sociology.

Goal 11: Radford University students will understand how social and cultural (for example, political, historical, economic, environmental, religious or geographic) forces shape experiences in the global setting.

- Radford University students will be able to:
  - compare and contrast different perspectives used to explain the world or international issues;
  - use material studied to explain cross-cultural issues in the world;
  - evaluate differences and similarities among world cultures that affect perceptions, beliefs or behaviors, and thus relationships between those cultures

### **Required (3 hours)**

All students must pass one of the following courses in Global Perspectives:

ENGL 201. Readings in World Literature.  
 FORL 103. Trademarks in Chinese Culture.

CVPA 266. Travel Study in Visual and Performing Arts.  
 GEOG 101. Europe and the Americas.  
 GEOG 102. Asia and Africa.  
 GEOG 140. Introduction to Environmental Studies.  
 GEOG 280. Regional Geography.  
 HIST 101. World History to 1500.  
 HIST 102. World History after 1500.  
 INST 101. Introduction to International Studies.  
 ITEC 112. A Global Perspective of Information Technology.  
 PEAC 200. Introduction to Peace Studies.  
 RELN 112. Survey of World Religions.  
 RELN 205. Religion and Culture.  
 SOCY 121. Understanding Cultures.  
 THEA 180. Introduction to World Cinema.  
 WMST 101. Women in the World.

### **College Core B. Supporting Skills and Knowledge (9-11 hours required)**

Upon completion of College Core B (Supporting Skills and Knowledge), Radford University students will have a stronger foundation in three key areas: mathematical sciences or natural sciences; humanities, visual and performing arts or foreign languages; and social/behavioral sciences or health and wellness. As part of this area, students may take a course in a foreign language or health and wellness with learning outcomes specified below.

If a foreign language is chosen to satisfy this requirement, the student will achieve a degree of competence in a foreign language and culture, and will be able to:

- demonstrate language skills appropriate to the level of study
- analyze similarities and differences between their own and the target cultures
- explain contemporary international issues from the perspectives of their own and the target cultures

If a health and wellness course is chosen to satisfy this requirement, the student will understand the implications of health and lifestyle choices for him/herself and society, and will be able to:

- identify health-related choices that promote personal well being and enhance the overall quality of life
- analyze the relations among factors such as nutrition, stress, leisure, and health related fitness activities as they influence personal wellness
- explain how personal health and lifestyle choices affect society at large
- explain how social and cultural factors affect personal health and lifestyle choices

### **Required (3 or 4 hours)**

All students must pass a second course in the Mathematical Sciences or Natural Sciences. In addition to the courses listed in these content areas in University Core B (above), students can also meet this requirement by passing:  
 STAT 200. Introduction to Statistics.

### **Required (3 or 4 hours)**

All students must pass a second course in the Humanities, Visual and Performing Arts, or Foreign Languages. In addition to the courses listed in these content areas in University Core B (above), students can also meet this requirement by passing a foreign language course:

CHNS 101:102. Elementary Chinese.  
 CHNS 201:202. Intermediate Chinese.  
 FORL 100. Elementary Conversation in Critical Languages.  
 FORL 109/209/309/409. Study Abroad Practicum.  
 FORL 200:210. Intermediate Conversation in Critical Languages.  
 FREN 100. Elementary French.  
 FREN 200:210. Intermediate French.  
 FREN 300. Readings in French.  
 FREN 320. Topics in French Cinema.  
 GRMN 100. Elementary German.  
 GRMN 200:210. Intermediate German.  
 GRMN 300. Readings in German.  
 LATN 101:102. Elementary Latin.  
 LATN 201. Intermediate Latin.  
 LATN 350. Latin Literature.  
 RUSS 100. Elementary Russian.  
 RUSS 200. Intermediate Russian I.  
 RUSS 210. Intermediate Russian II.  
 RUSS 300. Readings in Russian.

SPAN 101:102. Beginning Spanish.  
SPAN 201:202. Intermediate Spanish.

**Required (3 hours)**

All students must pass a second course in the Social and Behavioral Sciences or Health and Wellness. In addition to the courses listed in these content areas in University Core B (above), students can also meet this requirement by passing a Health and Wellness course:

- HLTH 111. Personal Health.
- HLTH 200. Wellness Lifestyle.
- NURS 111. Personal Health.
- NUTR 214. Introduction to Nutrition.
- RCPT 200. Leisure in Contemporary Society.

**TOTAL: 43-45 Required Hours in the Core Curriculum**

**BACHELOR OF ARTS DEGREE**

	Semester Hours
Courses for Core Curriculum	43-45
Courses for Major (minimum)	30
Concentration in one Foreign Language	6-12

**Option 1:**

Students with little to no foreign language background who are placed in a first-semester course by the Department of Foreign Languages and Literatures may fulfill this requirement by taking the first three semesters (the first four in Spanish) of a foreign language for a total of 12 semester hours.

**Option 2:**

Students with enough of a foreign language background to be placed beyond a first-semester course may fulfill this requirement by completing two courses above the first eight hours of language instruction (above nine in Spanish) for a total of 6 to 8 semester hours.

Courses used to meet Core Curriculum requirements may not be used to satisfy the B.A. requirements.

(Note: See p. 154 for Credit Granting Policy and Eligibility for Enrollment in Language Courses.)

**Total (includes electives) (minimum) 120**

**BACHELOR OF SCIENCE DEGREE**

	Semester Hours
Courses for Core Curriculum	43-45
Courses for Major (minimum)	30
Courses for B.S. Degree	6-8

Specific requirements associated with this degree are listed in the requirements for individual majors. Courses used to meet Core Curriculum requirements and/or major requirements may not be used to satisfy the B.S. requirement.

**Total (includes electives) (minimum) 120**

**BACHELOR OF BUSINESS ADMINISTRATION DEGREE**

	Semester Hours
Courses for Core Curriculum	27
Courses for Business Core	30
Courses for Major	18-30
<b>Total (includes electives)</b>	<b>120</b>
<b>All Other Majors (minimum)</b>	<b>120</b>

**BACHELOR OF FINE ARTS DEGREE**

	Semester Hours
Courses in Core Curriculum for all Majors	43-45
Courses for Major (Art)	69
<b>Total (includes electives)</b>	<b>120</b>
<b>Courses for Major (Dance)</b>	<b>70</b>
<b>Total</b>	<b>120</b>

**BACHELOR OF MUSIC DEGREE**

	Semester Hours
Courses in Core Curriculum for all Majors	43-45
Concentration in Music Education	70-86
<b>Total</b>	<b>122-131</b>
Concentration in Music Business	83-94
<b>Total</b>	<b>126-139</b>
Concentration in Music Therapy	90-104
<b>Total</b>	<b>133-149</b>

## **OFF-CAMPUS COURSES AND DEGREE PROGRAMS**

Radford University and VWCC have a partnership that allows students to earn selected baccalaureate degrees without leaving the Roanoke area. Undergraduate degree programs currently offered in Roanoke include the following: B.S. (Criminal Justice), B.S.N. (Nursing), B.S.W. (Social Work), B.S. (Interdisciplinary Studies/Elementary Education), and B.S. (Computer Science and Technology, Concentration in Database and Software Engineering). It is recommended that applicants to these degree programs complete, as prerequisites, specified associate degrees offered through VWCC.

For additional information about Radford University courses or Radford University degree programs based in Roanoke, contact Eulah Price, RU/Roanoke Site Partnership Coordinator, at [eprice@radford.edu](mailto:eprice@radford.edu).

### **Off-Campus Graduate Degree Programs**

For more information about graduate degree programs in Roanoke and other locations, contact the College of Graduate and Professional Studies at (540) 831-5431; toll-free from Roanoke 857-8920, ext. 5431; or e-mail [grad-college@radford.edu](mailto:grad-college@radford.edu).

### **Southwest Virginia Higher Education Center – Abingdon**

Radford University is a partner in the Southwest Virginia Higher Education Center located in Abingdon, Virginia. At the present time, qualified students in Southwest Virginia may apply for admission to graduate programs in Educational Leadership, Counselor Education, and Math Education.

Additional information about these programs is available by contacting each department as follows:

M.S. Counselor Education  
(540) 831-6265

M.S. Educational Leadership  
(540) 831-5302

M.S. Education Concentration  
Math Education  
(540) 831-5470

For general information about these programs and services, contact the university's office located at the center: (276) 619-4314; or e-mail [rblanken@radford.edu](mailto:rblanken@radford.edu).

### **The Roanoke Higher Education Center**

Radford University offers a range of graduate programs and other academic services in the Roanoke Higher Education Center. Currently, graduate programs are scheduled in the center in Criminal Justice, Business Administration (MBA), Educational Leadership, Special Education, and Math Education. For more information about each of these programs, contact:

M.S. in Criminal Justice  
(540) 831-6339

MBA  
(540) 831-6905

M.S. in Educational Leadership  
(540) 831-5302

M.S. in Special Education  
(540) 831-6425

M.S. Education Concentration in Math  
Education  
(540) 831-5470

For general information about these programs and services, contact the university's office located at the center: (540) 767-6190; or e-mail [eprice@radford.edu](mailto:eprice@radford.edu).

## **PROFESSIONAL PROGRAMS**

### **Pre-Law Program**

Radford University provides a program of pre-law advising for students interested in attending law school. Ordinarily, students must have completed a full four years leading to a bachelor's degree before being admitted to law school.

In keeping with the Statement on Prelegal Education of the Association of American Law Schools, Radford University does not require specific courses and extracurricular activities for students planning to attend law school. Rather, Radford's program of pre-law advising enables students to plan an appropriate undergraduate schedule to develop the basic skills and insights necessary for legal education.

Students considering a career in law should attend the information sessions for pre-law students, which are held each spring and fall. After attending a pre-law information session, students may consult the campus pre-law advisor Dr. Jack Call for additional advice or information. Students should attend the pre-law information

session early in their academic careers, preferably during their freshman year, for help in planning an appropriate undergraduate schedule.

### **Premedical and Predental Programs**

Most students who plan to attend medical school or dental school following graduation from Radford University major in either chemistry or biology. Other majors can be chosen, however, depending on student interests.

Medical and dental schools have as minimum requirements at least one year of biology, one year of general chemistry, one year of organic chemistry, one year of biochemistry, one year of physics and one year of calculus or other college math as specified by each school.

Premedical and predental students should plan to take the Medical College Admissions Test or the Dental Aptitude Test during the junior year. Dr. Mark Cline in the Biology department serves as pre-health advising committee chair.

# HONORS ACADEMY

**Dr. Joe King, Director**  
**Floyd Hall, (540) 831-6125**

The Honors Academy is a Center of Excellence at Radford University that provides opportunities for faculty-student collaborative scholarship and recognizes outstanding student achievement. Each semester the Honors Academy offers courses that are populated by Honors Academy members and taught by faculty dedicated to designing classes that provide for enhanced student engagement in the subject matter of the course. Honors coursework not only involves more hands-on activities, but also provides opportunities to enhance one's critical thinking as well as oral and written communication skills.

To graduate in one's major as a Highlander Scholar (see below), the student completes 27 of their credit hours toward graduation as honors coursework including a senior capstone project. The Honors Academy also supports a residential community in Floyd Hall and the Honors Academy Student Organization that provides forums for interaction among academy members.

Students who wish to learn more about the Honors Academy are invited to visit the Academy office in Floyd Hall or call Honors Academy Director Dr. Joe King, Professor of Psychology, at (540) 831-6125.

## ENROLLMENT

Enrollment in honors sections is limited to students described below. New freshmen whose high school transcripts indicate the potential for academic success are invited to join the Honors Academy. Transfer students and current Radford University students who have demonstrated academic excellence are invited to join the Academy and to enroll in honors courses. Highlander Scholars who have already been admitted to the Academy may enroll. Finally, any other student who has written permission from the course instructor may enroll.

## HIGHLANDER SCHOLARS

Highlander Scholars are students in the Honors Academy who are making progress toward completing the graduation requirements of the academy. These exceptional students design an Honors Plan of Study (HPS) in collaboration with their academic advisor(s). The plan of study requires a minimum of 27 hours of honors courses and is subject to the approval of the appropriate department chair and the Honors Academy Advisory Group. The courses include Core Curriculum courses, a departmental component and a capstone project. The Honors Plan of Study is flexible and is compatible with course requirements in every department.

## ADMISSION CRITERIA

Students who are not invited into the Honors Academy when they are admitted to the university may apply to the Academy after their first semester at Radford University. To be considered for admission, the following grade point averages are required: 3.0 for freshmen, 3.3 for sophomore class standing, 3.4 for junior class standing and 3.5 for senior class standing. Moreover, at the time of admission, students must demonstrate the potential to complete Honors Academy requirements.

To retain their status in the program, Highlander Scholars must continue to meet eligibility requirements and make satisfactory progress toward completing the Academy's graduation requirements.

## REQUIREMENTS FOR GRADUATION

To graduate from the Honors Academy as a Highlander Scholar, students must have a minimum 3.5 overall GPA and complete at least 27

hours of honors coursework in accordance with the requirements listed below:

- 6-12 hours of honors credits in the Core Curriculum
- 12-15 hours of courses required in the major
- 3-6 hours in a capstone project
- A student may transfer a maximum of 12 hours of Core Curriculum honors courses into the Academy.

Students are required to present the results of the capstone project at the Undergraduate/Graduate Forum or some other public venue. The campus forum in April serves as an opportunity for students to publicly share their scholarly and creative accomplishments.

For further information regarding requirements, deadlines, forms, contracts for honors work in the major and the capstone project, visit the Honors Academy Office located in Floyd Hall.

## **SUPPORTING ENVIRONMENT**

A joint effort between the Honors Academy and Residential Life has created a learning community in Floyd Hall. The residential component offers the opportunity for a select group of exceptional students to form a community. The emphasis of the Floyd Hall community is to nurture and support academic excellence.

Radford University awards two types of Honors degree, Latin Honors and Honors in the Major through the Honors Academy, both of which are indicated on the student's diploma. Graduation with Latin Honors is a function of earning the requisite cumulative grade point average. Students whose cumulative grade point average in all courses attempted at Radford University is greater than or equal to 3.5, but less than 3.7, will graduate cum laude. Those whose cumulative grade point average is greater than or equal to 3.7, but less than 3.85, will graduate magna cum laude. Those whose cumulative grade point average is 3.85 or greater will graduate summa cum laude. To be eligible to receive Latin Honors, a student must have earned a minimum of 60 semester hours at Radford University.

Students whose cumulative grade point average is greater than or equal to 3.50 but who do not earn 60 credit hours at Radford University will graduate "With Distinction."

Graduation with Honors in the Major through the Honors Academy requires the development of an Honors Plan of Study that includes 27 hours of honors courses in Core Curriculum, courses required in the major, and a capstone project. Highlander Scholars who graduate from the Honors Academy must earn a 3.5 cumulative grade point average. Students who successfully complete the Honors Academy requirements will receive a bachelor's degree with Honors in the Major. For more information, see previous page.

# COLLEGE OF BUSINESS AND ECONOMICS

**Faye W. Gilbert, Ph.D., Dean**  
**Whitt Hall 135**  
**(540) 831-5187**  
**<http://www.radford.edu/cobe>**

**George D. Santopietro, Ph.D.,**  
**Interim Associate Dean**  
**Davis Hall 147, (540) 831-5891**

**T.B.A., MBA Director**  
**704 Fairfax, Apt G (540) 831-6712**  
**MBA Office, (540) 831-6905**

**Nasim Schwab, Advising Coordinator**  
**Whitt Hall 001, (540) 831-5074**

**Mary Weeks, Assistant to the Dean**  
**Whitt Hall 135, (540) 831-5382**

“Collaborative endeavors” refer to experiences in research, consulting, courses, study abroad, and other initiatives that increase the effectiveness of individuals and teams within a diverse society.

“Compete in a dynamic global economy” suggests that we seek to create experiences that help people succeed within a changing global environment.

We value:

Collaboration

Collegiality

Cross cultural understanding

Clear communication

Analytical skills

Ethical interactions that respect the dignity of all peoples

## VISION, MISSION, AND VALUES

Our vision is to provide such a transformative educational experience that we are widely recognized as a school of choice where students experience business . . . actively, globally, and entrepreneurially.

The mission of the College of Business and Economics (COBE) is to provide an active learning environment focused on developing responsible business professionals who can work collaboratively to compete in a dynamic global economy. We emphasize intellectual contributions that advance practice, pedagogy, and knowledge of our disciplines.

“Active learning environment” means that we use experiences such as applied projects, interactive learning events, professional enrichment programs, and activities as we publish articles that contribute to business practices.

“Responsible business professionals” means that we work to develop experiences to impact skills in logic, ethical awareness, knowledge of business disciplines, analytical reasoning, communication, and cross cultural awareness.

## PROGRAMS

The College of Business and Economics offers a wide range of programs that prepare graduates for careers in business or economics in both the private and public sectors of the economy. Business and economics programs have a liberal arts foundation and explore the theory and practice of modern business administration.

The college is comprised of four academic departments which offer a variety of combinations of undergraduate degrees and majors:

Accounting, Finance, and	
Business Law	p. 85
Economics	p. 86
Management	p. 87
Marketing	p. 89

The college also offers the Master of Business Administration (MBA) degree, an interdisciplinary program that involves course work in all four academic departments.

## ACCREDITATION

The graduate and undergraduate programs in business administration offered by the College of Business and Economics at Radford University are accredited by the Association to Advance Collegiate Schools of Business (AACSB-International). The AACSB is the premier accrediting agency for business schools, worldwide.

## STUDENT ORGANIZATIONS

The College of Business and Economics sponsors a variety of student organizations which permit students to pursue extracurricular activities related to business, economics, or a specific functional area of business. The student organizations and their primary areas of interest are the Institute of Management Accounting (accounting), the American Marketing Association (marketing), the Financial Management Association (finance), Beta Gamma Sigma (business), Society for Advancement of Management (business and management), Sigma Iota Epsilon (management), Phi Beta Lambda (business), Alpha Kappa Psi (business), Delta Sigma Pi (business), Economics Student Association (economics), and Omicron Delta Epsilon (economics). The Student Managed Investment Portfolio Organization has a selective membership process. These student organizations are open to any interested student with the exception of Beta Gamma Sigma, Sigma Iota Epsilon, and Omicron Delta Epsilon, which are honorary societies and have special membership criteria.

## LAPTOP REQUIREMENT

All students in the College of Business and Economics (COBE) should have a laptop or other portable device, since the new building will not have a computer lab. The computer should

- meet Radford University requirements, as specified by the Division of Information Technology,

- be loaded with the most recent MS Office Suite of software applications, and
- be durable enough to last for at least two years.

## ADVISING

<http://www.radford.edu/cobe-advising>

All students with 56 or fewer credit hours seeking a Bachelor of Business Administration (B.B.A.) degree are advised by the Business Advising Center under the supervision of the college advising coordinator. Junior and senior B.B.A. majors who have met the pre-business requirements and all students seeking a Bachelor of Science (B.S.) degree in economics are advised by faculty within their major.

## UNDERGRADUATE DEGREE REQUIREMENTS

Undergraduates in the College of Business and Economics may earn a B.B.A. degree in Accounting (ACTG), Economics (ECON), Finance (FINC), Management (MGNT), or Marketing (MKTG). Students majoring in economics may also elect to earn a B.S. degree. Upon admission to RU or upon selection of a major in business, B.B.A. majors are classified as pre-business. Upon completion of all required Pre-business Program courses with a minimum average GPA of 2.0, students are officially designated as business majors in their selected field of study and permitted to take 300- and 400-level business courses. Students must also complete all courses required for their major as well as other courses required by the university. Non-business majors are allowed to take upper division business courses if they have completed at least 56 credit hours and meet all other course prerequisites.

### Pre-Business Program Courses

All students, regardless of their major, who intend to earn a B.B.A. degree are required to take each of the following courses:

*STAT 200. Introduction to Statistics.	3
*ECON 105. Principles of Macroeconomics.	3
*ECON 106. Principles of Microeconomics.	3
*MATH 126. Business Calculus.	
or	
MATH 151. Calculus and Analytic Geometry I.	3
ACTG 211. Fundamentals of Financial Accounting.	3
ACTG 212. Fundamentals of Managerial Accounting.	3

\*These courses may also be used to satisfy Core Curriculum requirements for the B.B.A degree in all business majors except the ECON major and the college recommends they be used in this way. Students can use only one course with their major prefix to fulfill core requirements; therefore, ECON majors cannot use both ECON 105 and 106 to satisfy CORE requirements.

### Business Core Courses

After completion of all pre-business courses, students pursuing a B.B.A. degree are required to take the following courses:

ITEC 100. Introduction to Information Technology.	
or	
ITEC 281. Data Management and Analysis with Spreadsheets.	3
BLAW 203. Legal Environment of Business.	3
ECON 340. Global Economy and Business.	3
MGNT 322. Organizational Behavior.	3
MGNT 333. Statistical Decision Support.	3
MGNT 357. Operations Management.	3
FINC 331. Introduction to Business Finance.	3
MKTG 340. Principles of Marketing.	3
MGNT 428. Global Business Strategy.	3

### GRADUATION REQUIREMENTS

Students must have an overall grade point average GPA of at least 2.0 in all courses taken at Radford to graduate with the B.B.A. degree. In addition, students must have at least an overall 2.0 major GPA. For the purpose of comput-

ing the major GPA, the major is defined all pre-business and business core courses and the 18 to 30 hours prescribed for the major by the department. In addition, at least 50 percent of the business courses required for the B.B.A. degree must be taken at Radford University. Business courses are defined as those having the prefix ACTG, BLAW, FINC, MGNT, or MKTG. Students earning a business minor must earn a GPA of at least 2.00 in the courses comprising the minor. Courses in a minor are defined under each category. At least 50 percent of the business courses required for a minor must be taken at Radford University.

### BUSINESS ADMINISTRATION MINOR

#### (18 Semester Hours)

The minor in business administration is open only to students majoring in the B.S. degree in economics or programs outside the College of Business and Economics. The minor in business administration provides an excellent opportunity for students in all fields to develop a basic understanding of the framework in which business operates. Students take an introductory course in the fundamental business areas and must select one other business course to fulfill the minor requirements.

#### Required Courses 18

ACTG 211. Fundamentals of Financial Accounting.	3
ECON 105. Principles of Macroeconomics.	
or	
ECON 106. Principles of Microeconomics.	3
FINC 251. Personal Finance.	
or	
FINC 331. Introduction to Business Finance.	3
MGNT 322. Organizational Behavior.	3
MKTG 340. Principles of Marketing.	3
An elective in accounting, business law, finance, management or marketing.	3

# ACCOUNTING, FINANCE AND BUSINESS LAW

**Daniel Davidson\*, J.D., Chairperson**  
<http://www.radford.edu/afbl>

## UNDERGRADUATE PROGRAM

The undergraduate program in the Department of Accounting, Finance and Business Law prepares students for careers in the public, private, government and nonprofit sectors in accounting, finance, insurance, and/or real estate. The programs provide students with a basic and broad knowledge of business and administrative practices including analytical problem-solving and decision-making skills.

The department offers the Bachelor of Business Administration Degree with majors in Accounting and Finance.

### B.B.A. DEGREE

All requirements for majors in the Department of Accounting, Finance and Business Law are outlined below. Among the requirements are Core Curriculum courses (see p. 71), Business Core courses, major courses and electives.

### ACCOUNTING MAJOR

All requirements for accounting majors in the Department of Accounting, Finance and Business Law are outlined below. Among these requirements are a set of Required Courses, Business Core Courses and 30 semester hours of Major Courses.

The major prepares students to enter the fields of public, industrial, service, governmental and nonprofit or tax accounting. It also provides an appropriate preparation for students who wish to pursue graduate work in accounting or other areas of business.

The Virginia Board of Accountancy requires candidates taking the Certified Public Accountant (CPA) exam in Virginia to have a

baccalaureate degree, 120 total semester hours of credits, 30 semester hours of accounting, and 24 semester hours of business in order to sit for the CPA exam. The requirements for other states may vary.

**Core Curriculum Courses 43-45**  
 (Includes 12 hours of pre-business required courses. See p. 71 for Core Curriculum courses.)

**Business Core Courses 27**  
 (See p. 84.)

**Required Courses 21**  
 ACTG 311. Cost Accounting. 3  
 ACTG 312. Accounting Information Systems. 3  
 ACTG 313:314. Intermediate Accounting I and II. 3:3  
 ACTG 411. Federal Taxation. 3  
 ACTG 414. Auditing. 3  
 ACTG 416. Governmental and Not-for-Profit Accounting. 3

**Choose three courses from: 9**  
 (At least two courses must have ACTG prefix)  
 ACTG 401. International Accounting. 3  
 ACTG 412. Advanced Taxation. 3  
 ACTG 413. Advanced Financial Topics. 3  
 ACTG 415. Accounting Theory. 3  
 BLAW 304. Business Law I. 3  
 FINC 332. Intermediate Finance. 3

**Electives 15-17**

**Total Credits Needed for Degree 120**

### FINANCE MAJOR

The Finance Major prepares students for careers in financial management, investment brokerage, insurance, and real estate. It also provides an appropriate preparation for students who wish to pursue graduate work in finance or other areas of business.

## FINANCE MAJOR

### Core Curriculum Requirements 43-45

(Includes 12 hours of Pre-business required courses. See p. 71 for Core Curriculum courses)

### Business Core Courses 27 (See p. 84.)

### Required Courses 15

FINC 332. Intermediate Business Finance.	3
FINC 335. Financial Markets and Institutions.	3
FINC 381. Investment Analysis.	3
FINC 438. Financial Decision Making.	3
FINC 439. International Finance.	3

### Choose three finance electives from: 9

(at least one elective must have the FINC prefix)

ACTG 311. Cost Accounting.	3
ACTG 313. Intermediate Accounting I.	3
ACTG 401. International Accounting.	3
ACTG 411. Federal Taxation.	3
BLAW 304. Business Law I.	3
FINC 336. Principles of Real Estate.	3
FINC 341. Insurance I.	3
FINC 351. Personal Financial Planning.	3
FINC 434. Bank Management	3
FINC 436. Real Estate Finance.	3
FINC 439. International Finance.	3
FINC 441. Insurance II.	3
FINC 451. Advanced Financial Planning.	3
FINC 481. Global Portfolio Wealth Management.	3

### Electives 21-23

### Total Credits Needed for Degree 120

## ECONOMICS

George Santopietro\*, Ph.D., Chairperson  
<http://www.radford.edu/econ>

### UNDERGRADUATE PROGRAM

The Economics Department offers programs leading to the Bachelor of Science and the Bachelor of Business Administration degree. A major in economics prepares students

for a diversity of career opportunities. Economics majors are competitive for jobs in business and industry, local, regional, national, or international government agencies and social service institutions in both the public and private sectors. The economics major also is a good foundation for graduate training in business (MBA or Ph.D.), economics (M.A., M.S. or Ph.D.), public administration, law, and related areas.

## ENROLLMENT REQUIREMENTS

Undergraduate courses in the Department of Economics numbered 300 or higher are open only to students who have achieved junior standing (56 or more credit hours completed) and meet all other prerequisites.

## B.S. DEGREE

All requirements for economics majors are outlined below.

### Core Curriculum 43-45 (See p. 71.)

### Required Courses 12-13

ITEC 100. Information Technology	
or	
ITEC 120. Principles of Computer Science I.	4
*MATH 126. Business Calculus.	
or	
*MATH 151. Calculus and Analytic Geometry.	3
*STAT 200. Introduction to Statistics.	3

### Economics Core 18

*ECON 105. Principles of Macroeconomics.	3
*ECON 106. Principles of Microeconomics.	3
ECON 305. Intermediate Macroeconomic Theory.	3
ECON 306. Intermediate Microeconomic Theory.	3
ECON 330. Money and Banking.	3
ECON 495. Current Topics in Economics.	3
*May also be used to satisfy Core Curriculum requirements.	

(ECON majors cannot use *both* ECON 106 and ECON 105 to satisfy core requirements.)

**Business Core Course** 27  
(See p. 84.)

**B.S. Requirements** 6-8

The Bachelor of Science degree requires six to eight semester hours of courses in specified areas outside the major, which the department chairperson must approve.

**Major Requirements** 18

ECON 305. Intermediate Macroeconomic Theory. 3  
ECON 306. Intermediate Microeconomic Theory. 3  
ECON 330. Money and Banking. 3  
ECON 495. Current Topics. 3  
ECON Electives 6

**Concentration** 18

(Majors must choose one of the two concentrations listed below.)

**Electives** 27-29

**Electives** 23-29

**Total Credits Needed for Degree** 120

**Total Credits Needed for Degree** 120

**ECONOMICS MINOR** 18

**ECONOMICS CONCENTRATIONS**

The Economics Department offers a minor in economics that consists of 18 semester hours of economics courses.

**Basic Concentration** 18

This concentration requires additional 18 semester hours in economics electives.

**MANAGEMENT**

**International Concentration** 18

This concentration prepares students for careers in international business or finance and careers with firms having international operations.

**Dale Henderson, Ph.D., Chairperson**  
<http://www.radford.edu/mgmt>

**Required Courses** 18

ECON 309. Comparative Economic Systems. 3  
ECON 311. Economic Development. 3  
ECON 442. International Trade Theory and Policy. 3  
ECON 443. International Monetary Theory and Policy. 3  
ECON Electives 6

**UNDERGRADUATE PROGRAM**

The undergraduate program in the Department of Management prepares students for careers in organizations. The program provides students with a basic knowledge of business and administrative practices and helps them to develop an understanding of business and administrative functions and analytical problem-solving and decision-making skills. The Management degree is for students primarily interested in dealing with the total operations of organizations. Courses cover decision-making, production of goods and services, supply chain management, electronic business, human resources, entrepreneurship, global issues in management of corporations, and labor relations areas of business. The Department of Management offers the Bachelor of Business Administration degree in Management.

**B.B.A. DEGREE**

**ECONOMICS MAJOR CORE CURRICULUM REQUIREMENTS** 43-45

(includes 12 hours of Pre-business required courses. See p. 71 for Core Curriculum courses)

## ENROLLMENT RESTRICTIONS

Enrollment in upper-division courses in the Department of Management (those prefixed by MGNT) is restricted to students who have completed the Pre-business Program (p. 83) and have been admitted to a business major.

## B.B.A. DEGREE

All requirements for majors in the Department of Management are outlined below. Among the requirements are Required Courses (which may also be used to fulfill Core Curriculum requirements), Business Core courses, major courses, and electives.

**Core Curriculum Requirements** 43-45  
(Includes 12 hours of Pre-Business required courses. See p. 71 for Core Curriculum courses.)

**Business Core Courses (See p. 84.)** 27

**Required Courses** 9  
MGNT 323. Human Resource Management. 3  
MGNT 421. Leadership and Motivation. 3  
MGNT 436. Cultural Diversity and International Management. 3

**Choose four courses from the following list:** 12  
MGNT 330. Managing Technology and Information Resources. 3  
MGNT 350. Owning and Managing a Business. 3  
MGNT 361. Organizational Communications. 3  
MGNT 425. Management of Change. 3  
MGNT 450. Managing New Venture Creation. 3  
MGNT 452. Business Consulting. 3  
MGNT 457. Technology and Innovation Management. 3  
MGNT 460. Business and Society. 3  
MGNT 471. Special Topics in Management. 3-6

MGNT 481. Management Study Abroad. 3-6  
MGNT 490. Management Internship. 3

**Electives** 23

**Total Credits Needed for Degree** 120

## ENTREPRENEURSHIP CONCENTRATION

A degree in management with a concentration in entrepreneurship is designed to provide students with the skill sets needed to effectively create and manage business opportunities. The requirements for completion of the entrepreneurship concentration are as follows:

**Core Curriculum Requirements** 43-45

**Business Core (See p. 84.)** 27

**Required Courses** 18

MGNT 323. Human Resource Management. 3  
MGNT 421. Leadership and Motivation. 3  
MGNT 436. Cultural Diversity and International Management 3  
Plus:  
MGNT 250. Entrepreneurship and Innovation. 3  
MGNT 350. Owning and Managing a Business. 3  
MGNT 450. Managing New Venture Creation. 3

**Choose one course from the following list:** 3

ACTG 411. Federal Taxation. 3  
ECON 301. The Economics of Entrepreneurship. 3  
FINC 341. Insurance I. 3  
MGNT 330. Managing Technology and Information Resources. 3  
MGNT 452. Business Consulting. 3  
MKTG 360. Professional Selling. 3  
MKTG 446. Marketing Research. 3



<b>Core Curriculum Requirements</b>	<b>43-45</b>	<b>Electives</b>	<b>23</b>
(includes 12 hours of Pre-Business required courses. See p. 71 for Core Curriculum courses)		<b>Total Credits Needed for Degree</b>	<b>120</b>

**Business Core Courses (See p. 84.) 27**

**Required Courses 9**

MKTG 350. Consumer Behavior.	3
MKTG 445. Marketing Strategy.	3
MKTG 446. Marketing Research.	3

**Choose four courses from the following list: 12**

MKTG 341. Advertising Strategy.	3
MKTG 342. Internet Marketing.	3
MKTG 343. Retailing.	3
MKTG 344. Sales Management.	3
MKTG 345. Integrated Marketing Communications.	3
MKTG 360. Professional Selling.	3
MKTG 440. Logistics.	3
MKTG 444. Supply Management.	3
MKTG 452. International Marketing.	3
MKTG 471. Special Topics in Marketing.	3
MKTG 481. Marketing Study Abroad.	3-6
MKTG 490. Marketing Internship.	3

**MARKETING MINOR (15 SEMESTER HOURS)**

The minor in marketing is open to all non-business majors. It provides an excellent opportunity for students in all fields to learn the basic principles of marketing products, services, ideas, places and/or personalities, while enhancing the skill sets values by employers.

**Required Courses**

MKTG 340. Principles of Marketing.	3
MKTG electives	9
**Choose any three courses from the marketing electives listed above.	
Additional semester hours in ACTG, BLAW, FINC, MGNT or MKTG	
	3

# COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT

**Patricia Shoemaker, Dean**  
Peters Hall A121, (540) 831-5439

**Fran Steigerwald, Associate Dean  
and Director, Field Experience Program**  
Peters Hall A114, (540) 831-6311

**Donna Dunn, Coordinator**  
**Center for Academic Advising and  
Student Support**  
Peters Hall A104, (540) 831-5424

The College of Education and Human Development offers programs to prepare students for areas of specialization that include teaching; elementary, middle, and secondary schools; special education; exercise, sport and health education; nutrition and dietetics; and recreation, parks, and tourism. Students may select from a wide range of program options at both the undergraduate and graduate-levels. Many of these options lead to professional licensure or certification. Faculty and staff emphasize holistic, student-centered teaching grounded in the realities of the professions. The college is recognized for outreach and collaboration in the service of healthy individuals and communities.

The College of Education and Human Development includes the following units:

**Appalachian Studies**  
(Appalachian Studies Minor) p. 97

**Counseling and Human Development**  
(Clinical Mental Health Counseling and School Counseling) p. 118

**Exercise, Sport, and Health Education**  
(Athletic Training, Fitness/Strength/ and Conditioning, Health Education/Health Promotion, Health/Physical Education- Teaching, Nutrition and Dietetics, Sport Administration, Sports Medicine) p. 98

**Recreation, Parks, and Tourism**  
(Recreation Therapy, Outdoor Recreation, and Tourism and Special Events) p. 107

**School of Teacher Education and Leadership**  
(Elementary Education, Middle Education, Secondary Education, Early Childhood Education/ Early Childhood Special Education, Deaf and Hard of Hearing Education and Special Education General Curriculum; at the graduate level, Special Education Visual Impairment, and Special Education Adaptive Curriculum) p. 109

## ACADEMIC ADVISING

The College of Education and Human Development recognizes the importance of academic advising and encourages all students to meet with their academic advisors at least twice each semester. Each student has ultimate responsibility for meeting the requirements of his or her academic program. Academic advising goes beyond the selection of courses for registration. It provides students with an opportunity to talk about concerns such as building a strong program leading to a promising career, employment opportunities, expectations of prospective employers such as grade point average or extracurricular activities and financial opportunities. Both faculty advisors and the Advising Center staff are committed to assisting students in: exploring educational and career options; clarifying university and departmental requirements; selecting appropriate courses; evaluating academic progress; and obtaining referral information for academic and student support services.

The Center for Academic Advising and Student Support assists faculty advisors by offering general and technical advising to any student in the college. Center personnel are available to clarify policies and procedures as well as help students find answers to their academic questions. It is the student's responsibility to verify that all graduation requirements are met as

specified in his or her selected program. Students are expected to contact their advisors to schedule advising appointments. Additional information can be found on the Center’s webpage at [https://eduweb.education.radford.edu/advising\\_office/](https://eduweb.education.radford.edu/advising_office/).

Academic Advising (a definition developed through a collaborative effort by the College’s Advising, Recruitment, and Retention Committee and the faculty of the College):

Academic advising is a dynamic relationship, a developmental process through which an advisor (faculty or professional) and advisee (the student) establish a shared partnership leading to the development of academic, career, and life goals by the advisee. The advisor serves as a teacher, guide, and facilitator, encouraging the advisee to assume responsibilities for making decisions, thinking critically, utilizing resources and reaching their potential.

Advisors encourage students to:

- Gain a clearer understanding of the experience of higher education;
- Approach their education in an organized and meaningful way;
- Think critically;
- Take responsibility for their education,
- Seek out resources;
- Develop plans of action towards goal achievement, and;
- Evaluate progress toward their goals.

Students are expected to become familiar with the College of Education and Human Development Academic Advising Manual available from the Center or the website.

Academic advising is student centered, utilizes the resources of the university including appropriate referral to other services, and promotes a successful academic experience. Academic advising supports the mission of the university, “. . . First and foremost, the university emphasizes teaching and learning . . . its commitment to the development of mature, responsible, well-educated citizens. . . promotes a sense of caring and of meaningful interaction. . .”

## TEACHER EDUCATION PROGRAM

All programs in professional education preparation at Radford University are accredited by the National Council for Accreditation of Teacher Education, the Southern Association of Colleges and Secondary Schools, and the Virginia Department of Education. Information related to admission to and retention in programs and information on the professional studies component of preparation programs is found in the following pages. Additional information specific to the degree or subject area and departmental requirements are found on the following pages in this catalog. Because national and state standards are continually being modified, program requirements are subject to change. Students should stay in contact with advisors and with the Office of Field Experience to keep abreast of possible changes. Programs administered through the College of Education and Human Development:

Interdisciplinary Studies	
Elementary Education	p. 109
Middle School Education	p. 110
Special Education (Deaf and Hard of Hearing, PreK-12)	p. 112
Special Education General Curriculum, (K-12)	p. 115
Early Childhood Education/Early Childhood Special (PreK-3) Education (Birth-age 5)	p. 113
Health and Physical Education (K-12)	p. 102

### Programs Administered in Conjunction With Other Colleges

See departmental information for details.

Secondary Education: Biology (College of Science and Technology)	p. 171
Secondary Education: Chemistry (College of Science and Technology)	p. 179
Secondary Education: Earth Sciences (College of Science and Technology)	p. 196
Secondary Education: Physics (College of Science and Technology)	p. 200
Secondary Education: English	

(College of Humanities and Behavioral Sciences)	p. 114
Secondary Education: Mathematics (College of Science and Technology)	p. 188
Secondary Education: Social Studies (College of Humanities and Behavioral Sciences)	p. 158
K-12 Art Education (College of Visual and Performing Arts)	p. 205
K-12 Dance Education (College of Visual and Performing Arts)	p. 222
K-12 Music Education (College of Visual and Performing Arts)	p. 218

## GRADUATE PROGRAMS

See the *Radford University Graduate Catalog* for details.

Education-Content Area Studies (Math Education), Curriculum and Instruction, Educational Technology

(College of Education and Human Development) Educational Leadership

(College of Education and Human Development) Literacy Education

(College of Education and Human Development) School Counselor

(College of Education and Human Development) School Psychology

(College of Humanities and Behavioral Sciences) Secondary Science/Licensure Option

(College of Education and Human Development) Special Education -- General Curriculum,

Adaptive Curriculum, Severe Disabilities, Early Childhood Special Education, Deaf and Hard of Hearing and Visual Impairment

(College of Education and Human Development) Speech-Language Pathology

(Waldron College of Health and Human Services)

## ADMISSION REQUIREMENTS

- Criteria for admission to the Teacher Education Program fall into three areas: high academic achievement, proficiency in basic skills, and professional qualities that contribute to success in teaching. To be eligible to apply, students must meet the following minimal criteria:

- Completion of 45 semester hours of course work, except 50 hours is required for secondary education programs.
- A minimum 2.50 grade point average (GPA) on all college work, a 2.50 GPA on all work at Radford and a 2.50 GPA on all work attempted in the major, except elementary education which requires a 3.00 GPA on all college work, a 3.00 GPA on all work at Radford and a 3.00 GPA on all work attempted in the major and in professional studies; and secondary social studies which require a 2.75 GPA on all college work, a 2.75 GPA on all work at Radford and a 2.75 GPA on all work attempted in the major and in professional studies; applicants for the five year programs, early childhood education/early childhood special education and special education/general curriculum must maintain a 2.50 grade point average in all above mentioned areas and must meet additional requirements for admission to the College of Graduate and Professional Studies.
- Earned a minimum 2.5 grade point average (GPA) in total hours attempted at Radford, a 2.5 GPA over all college-level work attempted except for Secondary Social Science which requires a 2.75 GPA and Elementary Education which requires a 3.00 GPA; applicants for the five-year programs, early childhood education/early childhood special education and special education/general curriculum must maintain a 2.50 GPA grade point average in all above mentioned areas and must meet additional requirements for admission to the College of Graduate and Professional Studies.
- Successful completion of HUMD 300 (if required in specific teacher education program) and EDEF 320 and/or earned a minimum 2.50 grade point average in those Radford University courses designated as comprising the major; and not have any “incompletes” on current academic record except for Elementary Education which requires a 3.00 GPA and Secondary Social Science which require a minimum 2.75 GPA in the Radford University courses designated as comprising the major and not have any “incompletes” on current

- academic record; applicants for the five-year programs, early childhood education/early childhood special education and special education/general curriculum must maintain a 2.50 grade point average in all above mentioned areas and must meet additional requirements for admission to the College of Graduate and Professional Studies.
- Passing scores on Praxis I (or equivalent), on the Virginia Communication and Literacy Assessment, and on the Praxis II assessments are required for full admission. Applicants in secondary mathematics and secondary English can apply for Provisional Admission. Students must have passing scores on subject matter exams. Praxis II required for licensure by the State of Virginia for full admission. (See Office of Field Experience.)
  - Demonstrate professional characteristics and dispositions.

## ADMISSION PROCEDURES

Applications for admission to the Teacher Education Program will ONLY be obtained through attendance at a MANDATORY meeting for admission to the Teacher Education Program.

These will be held at the beginning of the semester one year prior to the student's first field experience. (Except Spring 2012 first field experience placement - this requires attendance at a September 2011 meeting.)

\*\*For Fall 2012 first field experience placement (and Spring 2012), MANDATORY meetings are scheduled:

- Tuesday, September 13, 2011 at noon - 1 p.m. -OR- Wednesday, September 21, 2011 at 6 - 7 p.m.

Complete applications for Spring 2012 are due to be hand delivered to the Office of Field Experience from 8 a.m. to 4 p.m., on Monday, October 17, 2011.

- Complete applications are due to be hand delivered to the Office of Field Experience from 8 a.m. - 4 p.m., on Wednesday, February 1, 2012.

\*\*For Spring 2013 first field experience placement, MANDATORY meetings are scheduled:

- Tuesday, January 24, 2012 at noon - 1 p.m. -OR- Wednesday, February 1, 2012 at 6 - 7 p.m. Complete applications for Spring 2013 are due to be hand delivered to the Office of Field Experience from 8 a.m. - 4 p.m., on Friday, September 14, 2012.

The dates for the deadline for applications will be publicized by the Office of Field Experience. Applications are reviewed by the programs to ensure students meet minimum Field Experience Programs criteria to be eligible for admission. If a student does not meet minimal criteria, he or she is notified by the office and will not be registered for early field experience courses or student teaching.

After the application is submitted, departments conduct a departmental review. The department's recommendation regarding the student's admission to the Teacher Education Program is then sent to Office of Field Experience.

Applications and supporting information are reviewed each semester by field experience programs and the associate dean. Each applicant will be notified by Office of Field Experience regarding his or her admission status. If admission is denied, the associate dean will provide reasons for the denial. A student who is denied admission may reapply.

An applicant may appeal denial of admission by letter from the student to the associate dean of the College of Education and Human Development within 10 working days after the date of the letter of notification. The student's letter requesting an appeal must include or be accompanied by a statement of information supporting the appeal.

## RETENTION POLICIES

After admission to the Teacher Education Program, a student's progress is under continued review by the faculty. Retention policies are fully described in Policies and Procedures Governing Admission and Retention in the Teacher Education Program, available online.

## ELIGIBILITY FOR STUDENT TEACHING

A full semester of student teaching is required of all students in the Teacher Education Program. To be eligible to enroll in student teaching, a student must have:

- earned a minimum of 92 hours of credit and met course work prerequisites for student teaching;
- successfully completed all departmental prerequisites for student teaching;
- earned a minimum 2.5 grade point average (GPA) in total hours attempted at Radford, a 2.5 GPA over all college-level work attempted except for Elementary Education which requires a 3.00 GPA and Secondary Social Science which requires a minimum 2.75 GPA; applicants for the five-year programs, early childhood education/early childhood special education and special education/general curriculum must maintain a 2.50 grade point average in all above mentioned areas and must meet additional requirements for admission to the College of Graduate and Professional Studies;
- satisfactorily completed professional education courses that are prerequisites to student teaching with a minimum 2.50 grade point average except for Elementary Education which requires a 3.00 GPA and Secondary Social Science which requires a minimum 2.75 GPA; applicants for the five-year programs, early childhood education/early childhood special education and special education/general curriculum must maintain a 2.50 grade point average in all above mentioned areas and must meet additional requirements for admission to the College of Graduate and Professional Studies;
- earned a minimum 2.50 grade point average in those Radford University courses designated as comprising the major; and not have any "in-completes" on current academic record except for Elementary Education which requires a 3.00 GPA and Secondary Social Science which require a minimum 2.75 GPA in the Radford University courses designated as comprising the major and not have any "in-completes" on current academic record; applicants for the five-year programs, early childhood education/early childhood special education and special education/general curriculum must maintain a 2.50 grade point average in all above mentioned areas and must meet additional requirements for admission to the College of Graduate and Professional Studies;
- earned a minimum 2.50 GPA in professional studies except for Elementary Education which requires a 3.00 GPA and Secondary Social Science which requires a minimum 2.75 GPA and be recommended for admission to student teaching by professional education faculty; applicants for the five-year programs, early childhood education/early childhood special education and special education/general curriculum must maintain a 2.50 grade point average in all above mentioned areas and must meet additional requirements for admission to the College of Graduate and Professional Studies;
- submitted passing scores on the basic proficiency exam required for licensure, the Virginia Communication and Literary Assessment/VCLA, the basic proficiency exam required for admission to the teacher education program (PRAXIS I), and passing scores on the subject exams required for licensure (PRAXIS II) except for Elementary, Middle, and Secondary Social Studies Education which require PRAXIS I, PRAXIS II, and the VCLA to be passed prior to admission to the Teacher Education Program; the Virginia Department of Education does not require a Praxis II exam for any program in special education (Early Childhood Education/Early Childhood special Education will take the elementary Praxis II to cover the endorsement in early childhood education for early/primary PreK-3 endorsement)
- passing scores on the Reading for Virginia Educators Assessment (RVE) by candidates

in the elementary education (PreK-6), early childhood/early childhood special education, and special education /general curriculum and special education/ hearing impairments; passing scores on the RVE are required for program completion and recommendation for licensure.

- Each student is expected to demonstrate knowledge, skills, and dispositions that reflect professional development in the following key areas of performance: content knowledge and content pedagogy knowledge and skills; learner development and learner differences; establishing a climate for learning; planning and instruction; and professional responsibilities and professional characteristics and dispositions.

## **LICENSURE, PROGRAM COMPLETION, AND GRADUATION REQUIREMENTS**

To fully complete the program and be recommended for licensure, a student must have successfully completed student teaching in an assigned classroom setting and met all other requirements in the Radford University state-approved Teacher Education Program (including passing scores on all required licensure exams), be a citizen of the United States (this is a requirement for licensure only, and may be waived by the Virginia Department of Education), and have earned at least a 2.5 grade point average in professional education courses, in courses comprising the major, and in all work within the degree except for Elementary Education which requires a 3.0 GPA and Secondary Social Science which requires a 2.75 grade point average in all areas; students in the five-year programs must meet grade point average requirements specific to the individual program.

**Each student is responsible for meeting all requirements for licensure and graduation.**

By action of the Virginia General Assembly, all candidates completing teacher preparation programs are required to earn passing scores on examinations determined by the Board of Education and must meet other re-

quirements as stated by the Virginia licensure requirements. Applications for graduation and applications for Virginia teacher licensure are distributed through the Center for Academic Advising and Student Support. Completed applications should be turned in at the Center for processing. Application requirements are subject to change based on Virginia Department of Education directives.

For information, contact the Center for Academic Advising and Student Support, Peters Hall A104.

## **ADDITIONAL SERVICES**

Additional services in the College of Education and Human Development are provided through the following offices:

### **Center for Academic Advising and Student Support**

**Donna Dunn**

**Peters Hall A104, (540) 831-5424**

This office supports the mission of the university and college by providing student-centered support through academic advising to students who have questions about curricula, teacher licensure requirements, academic requirements, academic policies and procedures, transfer work and graduation requirements. Students are expected to become familiar with their program requirements in the university catalog, program website, and Advising Center's website. (See additional information on p. 91.)

### **Office of Field Experience Programs**

**Linda King, CEHD Clinical Coordinator**

**Peters Hall A113, (540) 831-5277**

This office administers a variety of services which support academic programs within the college and the university. Specifically, the office coordinates the undergraduate and graduate field programs including Early Field Experiences, Pre-Student Teaching, Student Teaching, and Graduate Practica. The office also coordinates special programs, seminars, workshops, and institutes which are developed by the faculty and oversees the unit assessment for Teacher Education Programs.

## APPALACHIAN STUDIES

**Theresa L. Burriss\*, Chairperson**  
**101 Buchanan House**  
**(540) 831-5366**  
**[www.radford.edu/~arsc/](http://www.radford.edu/~arsc/)**

### UNDERGRADUATE PROGRAM

The Appalachian Studies Program provides students with an understanding of the heritage, environment, and culture of the Appalachian region.

Appalachian life of the past and present is stressed. Students who plan to live and work within the Appalachian region will find the Appalachian Studies minor a valuable addition to their major fields of study. The academic program is supported by the Appalachian Rural Regional Studies Center, located in Buchanan House, where faculty and support personnel are available to assist student research. The center houses an archive of original field projects, a collection of journals, books, and other print materials, and a collection of audio and video recordings. The academic program is also supplemented by cultural activities such as folk life programs, concerts, and literary readings that are sponsored by the ARRSC and/or the Appalachian Events Committee, a student/faculty/staff group.

### APPALACHIAN STUDIES MINOR (15 semester hours)

The minor in Appalachian Studies includes courses from a variety of disciplines to give students a broad understanding of Appalachia from multiple perspectives. Field research courses guide students into firsthand experience in the region. Students are required to take APST 200, *Introducing Appalachia*, early in their program of studies. A capstone course or major project is required near the end of their program; students choose from APST courses, internship, or independent study for the capstone work. For the remaining nine credit hours, students are to select three courses from at least two of the groups labeled A, B, C, D below. Courses marked with an asterisk need to be approved by the chair of Appalachian Studies or by an advisor in the APST program.

Students who wish to minor in Appalachian Studies must submit a Declaration of Minor form with appropriate signatures to the Registrar.

Students must consult with the APST chair or one of the members of the APST faculty for advising.

### 15 Semester Hours

Introductory Course (Required): 3  
APST 200. *Introducing Appalachia*.  
Capstone Course or Major Project  
(Required) – Choose one from the following: 3  
APST 460. *Seminar: Issues in Appalachia*.  
APST 495. *Research in Appalachia*.  
APST 480. *Internship in Appalachian Studies*.  
APST 498. *Independent Study in Appalachian Studies*.

Choose three courses from at least two of the following groups: 9

#### Group A:

ENGL 446. *Appalachian Literature*.  
ENGL 447. *Appalachian Folklore*.  
ENGL 314. *Topics in Literature*. (When topic relates to Appalachia)\*  
RELN 205. *Religion and Culture*. (When topic relates to Appalachia)\*

WMST 101. *Women in the World*. (When topic relates to Appalachia)\*  
WMST 290. *Special Topics in Women's Studies*.  
(When topic relates to Appalachia)\*  
Any course from ART, MUSIC, THEATER, or DANCE when topic relates to Appalachia\*

#### Group B:

HIST 339. *Scotland and Ireland in the Modern Age*.\*  
HIST 352. *Virginia History*.\*  
HIST 373. *Appalachian History*.  
HIST 385. *Public History*. (When topic relates to Appalachia).\*  
HIST 466. *History Travel*. (When topic relates to Appalachia)\*  
GEOG 202. *The Commonwealth of Virginia*.  
GEOG 203. *Appalachian Geography*.

GEOS 480. Seminar. (when topic relates to Appalachia)\*

GEOS 490. Field Research Methods.  
(When topic relates to Appalachia)\*

#### Group C:

SOCY 333. Social and Cultural Diversity  
(When topic relates to Appalachia)\*

SOCY 411. Appalachian Cultures.

SOCY 486. Community-Based Research.  
(When topic relates to Appalachia)\*

SOCY 482. Practicing Ethnographic  
Methods. (When topic relates to  
Appalachia)\*

SOCY 433. Rural Sociology.

SOCY 389. Sociology of Family. (When topic  
relates to Appalachia)\*

SOWK 480. Special Topics in Social  
Work. (When topic relates to Appalachia)\*

CRJU 380. Rural Crime and Law  
Enforcement.

CRJU 490. Seminar. (When topic relates to  
Appalachia)\*

PSYC 250. Psychology of Diversity  
(when topic relates to Appalachia)\*

#### Group D:

BIOL 103. Environmental Biology.

BIOL 481. Special Topics in Biology. (When  
topic relates to Appalachia)\* 149

GEOL 100. Earth Resources and Natural Haz-  
ards.

(When topic relates to Appalachia)\*

GEOL 361. Geology of Virginia.

RCPT 210. Introduction to Recreation, Parks,  
and Tourism.

RCPT 230. Introduction to Outdoor  
Recreation.

Any course from EDUCATION when topic  
relates to Appalachia\*

\* Requires APST Chair's or APST  
Advisor's approval"

## **EXERCISE, SPORT AND HEALTH EDUCATION**

**Beverly Zeakes, Chairperson**  
<http://eshe-web.asp.radford.edu>

### **UNDERGRADUATE PROGRAM**

Exercise, Sport, and Health Education (ESHE) majors prepare to be leaders in the promotion of physically active and healthy lifestyles in today's society. A diverse range of program offerings in areas of teaching, exercise leadership, sport administration, the exercise sciences, athletic training and dietetics allow students to pursue careers in specialized content areas as well as broad-based programs of study. Academic programs in Physical and Health Education, Athletic Training Education, and Dietetics lead to licensure and are accredited by their professional bodies. Nutrition and Dietetics students must complete an internship after completing the RU degree to obtain certification. The majority of ESHE programs require 120 hours of coursework (with the exception of the teaching licensure program) and include extensive field experiences such as internships, or student teaching. For the non-ESHE major, the department offers minors in contemporary content areas, including coaching, self-defense, sport administration, and exercise science.

### **ACADEMIC ADVISING**

All freshmen are advised in the Center for Academic Advising and Student Support and are assigned a faculty advisor at the end of the freshman year. The Advising Center provides support and assistance to all students and faculty within the department. Students are encouraged to consult with their academic advisor regularly to facilitate smooth progress towards completion of their degree.

## B.S. DEGREE

### EXERCISE, SPORT AND HEALTH EDUCATION MAJOR

All Exercise, Sport and Health Education majors must complete the core requirements in each area listed below. Refer to the ESHE concentration/option or major to determine exact requirements.

#### Core Curriculum Requirements 43-45 (See p. 71.)

Majors are required to take the following courses and are advised to take them as part of their Core Curriculum requirements:

MATH 137. College Algebra.	3
BIOL 105. Biology for Health Sciences.	4
PSYC 121. Introductory Psychology.	3
STAT 200. Introduction to Statistics.	3
HLTH 200. Wellness Lifestyles.	3

#### Concentration 77

Majors must choose one of the seven concentrations/options/majors shown below. These hours include any required field-work hours.

#### Other Requirements and Electives

Students should consult with their academic advisor when selecting other requirements and electives to complete 120 semester hours required for graduation.

#### Total Credits Needed for Degree 120 Major Grade Point Average (GPA)

The major GPA is calculated using all ESHE, HLTH and NUTR courses. The sports medicine major GPA also includes BIOL 310 and 311.

## CONCENTRATIONS

### SPORT AND WELLNESS LEADERSHIP CONCENTRATION

This area of study is designed for students interested in working in leadership positions within the fitness and/or sport industry. Students may choose either a Fitness, Strength, and Conditioning option, which emphasizes the

leadership of fitness and wellness programs in corporate, clinical, commercial and community settings; or a Sports Administration option, which provides coursework and experiences related to the management and administration of athletics, coaching, and organizations within the sport industry.

### FITNESS, STRENGTH AND CONDITIONING OPTION

Minimum of 77 hours

ESHE 201. Introduction to Athletic Injuries.	3
ESHE 305. Principles of Strength and Conditioning.	3
ESHE 315. Physical Activity and Aging.	3
ESHE 350. Sport and Exercise Psychology.	3
ESHE 358. Technology in ESHE.	3
ESHE 360. Marketing of ESHE.	3
ESHE 395. Motor Behavior Foundations.	3
ESHE 396. Assessment and Prescription of Physical Fitness.	3
ESHE 397. Health/Fitness Program Development.	3
ESHE 405. Personal Training Review.	3
ESHE 460. Exercise Leadership in Health Fitness.	3
ESHE 461. Organization and Administration of Health/Fitness Programs.	3
HLTH 320. Health and Safety Foundations.	3
HLTH 465. Nutrition in Sport and Exercise.	3
BIOL 322. Anatomy and Physiology.	4-6

#### Exercise Science Core 4-6

ESHE 390. Kinesiology and ESHE 392. Ex Physiology.	3
or	
ESHS 391. Ex Science Foundations.	3

Options-Choose two options from below:

#### Commercial Option 9

COMS 173. Introduction to Advertising.	3
MKTG 340. Principles of Marketing.	3
MKTG 341. Advertising Strategy.	3
MKTG 360. Logistics.	3

<b>Fitness Martial Arts Instructor Option</b>	<b>9</b>
ESHE 262. Introduction to Asian Martial Arts.	3
ESHE 310. Multicultural Self Defense Education.	3
ESHE 361. World Martial Arts.	3
ESHE 362. Principles of Self Defense	3

<b>Health and Nutrition Option</b>	<b>9</b>
NUTR 214. Introduction to Nutrition.	3
NUTR 316. Nutrition in the Life Cycle I.	3
HLTH 250. Consumer Health.	3
HLTH 475. Health Behavior Change.	3

<b>Performance Training Option</b>	<b>6</b>
ESHE 388. Coaching the Athlete.	3
ESHE 496. Topical Seminar in ESHE.	3
*If a student selects this option, he/she must take ESHE 390 and ESHE 392.	

<b>Fitness Programming for Children Option</b>	<b>10</b>
ESHE 210. Introduction to Teaching Physical Education.	2
ESHE 294. Motor Development.	2
ESHE 301. Theory and Practice of Fitness/Wellness.	2
ESHE 302. Theory and Practice of Individual/Dual Activities.	2
ESHE 306. Principles and Practice of Strength and Conditioning.	2

<b>Professional Fieldwork</b>	<b>7-13</b>
Required of all majors in the Sport and Wellness Leadership Concentration:	

ESHE 363. Seminar in Professional Fieldwork.	1
ESHE 463. Professional Fieldwork in ESHE.	6-12

### Major Grade Point Average (GPA)

A 2.5 cumulative, and in major, grade point average is required for fieldwork and graduation for this concentration. Refer to the fieldwork manual for additional information and requirements for fieldwork. All required ESHE and HLTH prefix courses that are offered for either 3 or 4 hours credit at the 300 and 400-course levels require a minimum overall GPA of 2.5 excluding 3 hour activity-based courses.

**Electives**  
Students should consult their academic advisors in selecting elective courses to complete the 120 semester hours required for graduation.

**Total Credits Needed for Degree** **120**

### SPORT ADMINISTRATION OPTION 62

ESHE 201. Introduction to Athletic Injuries.	3
ESHE 212. Introduction to Sport Management.	3
ESHE 305. Principles of Strength and Conditioning.	3
ESHE 350. Sport and Exercise Psychology.	3
ESHE 358. Technology in ESHE.	3
ESHE 360. Marketing of ESHE.	3
ESHE 388. Coaching the Athlete.	3
ESHE 391. Exercise Science.	4
ESHE 395. Motor Behavior Foundations.	3
ESHE 415. Issues in Sport Management.	3
ESHE 461. Organization and Administration of ESHE Programs.	3
ENGL 306. Professional Writing.	or
ENGL 307. Business Writing.	3
BIOL 322. Human Anatomy and Physiology.	6
ESHE/HLTH elective	3

### Interdisciplinary 15

Select 15 hours from the following interdisciplinary courses (please note that some courses will have prerequisites):

MGNT 322, 323, 357, 421, 425
MKTG 340, 341, 342, 344, 350, 360
ACTG 211, 212
BLAW 203
FINC 331, 332
COMS 104, 146, 173, 204, 225, 230, 250, 414
ECON 105/106, 313

\*\*Minors are encouraged in: Business Administration, Management, Marketing, Communication, and Media Studies. However, no more than 6 credits toward a minor may be double counted from the major course work.

<b>Professional Fieldwork</b>	<b>7-13</b>
Required of all majors in the Sport and Wellness Leadership Concentration	

ESHE 363. Seminar in Professional Fieldwork.	1
ESHE 463. Professional Fieldwork in ESHE.	6-12

### Major Grade Point Average (GPA)

A 2.5 cumulative, and in major, grade point average is required for fieldwork and graduation for this concentration. Refer to the fieldwork manual for additional information and requirements for fieldwork. All required ESHE and HLTH prefix courses that are offered for either 3 or 4 hours credit at the 300 and 400-course levels require a minimum overall GPA of 2.5 excluding 3 hour activity based courses.

### Electives

Students should consult their academic advisors in selecting elective courses to complete the 120 semester hours required for graduation.

## EXERCISE AND SPORT SCIENCE CONCENTRATION

This area of study is designed for students interested in advanced degree programs in the allied health field: physical therapy, occupational therapy, exercise physiology, cardiac rehabilitation. Chiropractic medicine or other allied health disciplines. Students will be required to achieve and maintain a 3.0 or higher GPA to take 300- and 400-level ESHE/HLTH courses in the Sports Medicine Option. This option also requires a capstone fieldwork experience.

## SPORTS MEDICINE OPTION

<b>Sports Medicine Concentration</b>	<b>77</b>
BIOL 105. Concepts of Biology.	4
CHEM 101. General Chemistry.	4
CHEM 102/103. General Chemistry.	4
BIOL 310. Human Structure and Function I.	4
BIOL 311. Human Structure and Function II.	4
*ESHE 201. Introduction to Athletic Training.	3
*ESHE 305. Principles of Strength and Conditioning.	3
*ESHE 315. Physical Activity and Aging.	3

*ATTR 323. Assessment of Athletic Injuries I.	3
*ESHE 350. Sport Psychology.	3
*ATTR 365. Therapeutic Exercise.	4
*ESHE 390. Kinesiology.	3
*ESHE 392. Exercise Physiology.	3
*ESHE 396. Assessment and Prescription of Fitness.	3
*ATTR 420. Therapeutic Modalities.	4
*HLTH 465. Nutrition for Sport and Exercise.	3
*ESHE/HLTH approved electives	3
PSYC 230. Lifespan Developmental Psychology.	
or	
PSYC 439. Abnormal Psychology.	3

\*Must have a 3.00 overall grade point average to enroll in the course

Choose two science courses from the following list:

PHYS 111. General Physics.	4
PHYS 112. General Physics.	4
CHEM 301. Organic Chemistry.	4
CHEM 302. Organic Chemistry.	4
BIOL 334. Microbiology.	4
BIOL 471. Biochemistry.	4

### Professional Fieldwork **7-13**

Required for Students in Sports Medicine  
 ESHE 363. Seminar in Professional Fieldwork. 1  
 ESHE 463. Professional Fieldwork in ESHE.6-12

### Electives

Students should consult their academic advisors in selecting elective courses to complete the 120 hours required for graduation.

### Major Grade Point Average (GPA)

A 2.5 cumulative, and in major, grade point average is required for fieldwork and graduation for this concentration. Refer to the fieldwork manual for additional information and requirements for fieldwork. All required ESHE and HLTH prefix courses that are offered for either 3 or 4 hours credit at the 300 and 400-course levels require a minimum overall GPA of 2.5 excluding 3 hour activity-based courses.

**Total Credits Needed for Degree **120****

## HEALTH EDUCATION AND HEALTH PROMOTION CONCENTRATION

This program of study prepares students to become Certified Health Education Specialists (CHES). This degree prepares students to develop the knowledge and skills to develop, implement, and evaluate health behavior change programs in order to promote and protect the health of individuals, communities, and the nation. Graduates of this program have the opportunity to work in communities, schools, health departments, worksites, or hospitals.

### Health Education and Health Promotion Concentration (HEHP) Courses 77

BIOL 322. Human Anatomy and Physiology.	6
NUTR 214. Introduction to Nutrition.	3
ESHE 315. Physical Activity and Aging.	3
ESHE 360. Marketing of ESHE.	3
ESHE 390. Kinesiology.	3
ESHE 392. Exercise Physiology.	3
ESHE 396. Assessment and Prescription.	3
HLTH 245. Foundations of Health.	3
HLTH 250. Consumer Health.	3
HLTH 300. Community Health and Epidemiology.	3
HLTH 325. Diversity of Health in the United States.	3
HLTH 451. Drug Use and Abuse Education.	3
HLTH 453. Human Sexuality.	3
HLTH 460. International Health.	3
HLTH 465. Nutrition.	3
HLTH 475. Health Behavior Change.	3
HLTH 480. Helping Skills for Health Educators.	3
HLTH 485. Health Program Planning and Evaluation.	3

### Professional Fieldwork 7

ESHE 363. Seminar for Professional Field Work.	1
ESHE 463. Fieldwork in ESHE.	6

### Major Grade Point Average (GPA)

A 2.5 cumulative, and in major, grade point average is required for fieldwork and graduation for this concentration. Refer to the fieldwork manual for additional information and requirements for fieldwork. All required ESHE and

HLTH prefix courses that are offered for either 3 or 4 hours credit at the 300 and 400-course levels require a minimum overall GPA of 2.5 excluding 3 hour activity based courses.

### Electives

Students should consult with their academic advisors in selecting elective courses to complete the 120 hours required for graduation.

**Total Credits Needed for Degree 120**

## PHYSICAL AND HEALTH EDUCATION TEACHING CONCENTRATION

This program of study prepares students to teach physical education and health education to young people in grades K-12. Students in this program earn a BS degree and a license issued by the Commonwealth of Virginia. To be admitted to the Professional Education Program, a student must meet minimum requirements for admission. Graduates obtain positions as teachers of physical and health education in schools and/or directors of community-based physical activity programs for youth. (See teacher education program in College of Education and Human Development admissions requirements on p. 93).

### Core Curriculum Requirements 43-45 (See p. 71.)

Majors are required to take the following courses and are advised to take them as part of their Core Curriculum requirements:

MATH 137. College Algebra.	3
BIOL 105. Biology for Health Sciences.	4
PSYC 121. Introductory Psychology.	3
STAT 200. Introduction to Statistics.	3
HLTH 200. Wellness Lifestyles.	3

### ESHE General Content. 10

ESHE 391. Exercise Science.	4
BIOL 322. Human Anatomy and Physiology.	6

### ESHE Health Content 12

HLTH 362. Community Health, Diseases, and Disorders.	3
HLTH 451. Drug Use and Drug Abuse Education.	3

HLTH 453. Human Sexuality.	3	<b>Fieldwork Requirement</b>	<b>12</b>
HLTH 465. Exercise, Performance, and Nutrition.	3	ESHE 453. Student Teaching.	12

<b>ESHE Physical Education Content</b>	<b>16</b>
ESHE 294. Motor Development.	2
ESHE 301. TandP of Fitness/Wellness.	2
ESHE 302. TandP of Individual/Dual Activities.	2
ESHE 304. TandP of Team Sport Activities.	2
ESHE 306. Theory and Practice of Cooperative Games and Activities.	2
ESHE 395. Motor Behavior.	3
ESHE 475. Applied Physical Education Assessment.	3

**Professional Education Requirements 18**

In addition to the Foundation Courses listed above, 18 additional hours of courses in the College of Education and Human Development are required for licensure to teach in the State of Virginia. ESHE 453 is a student teaching experience in two clinical settings: one in an elementary school and the other in a high school.

ESHE 210. Introduction to Teaching Physical Education.	2
ESHE 382. Methods of Teaching K-12 Physical Education.	4
ESHE 385. Teaching Physical Education for Inclusion.	2
HLTH 382. Methods of Teaching K-12 Health Education.	4
EDEF 320. Introduction to Professional Education.	3
EDRD 416. Content Reading and Literacy.	3

**Major Grade Point Average (GPA)**

A 2.5 overall GPA and a 2.5 major GPA are required for admission to the teacher education program and student teaching. See the teacher education admission requirements and procedures on p. 93.

**Electives 9**

Students should consult with their academic advisors in selecting elective courses to complete the 120 hours required for graduation.

**Major Grade Point Average (GPA)**  
A 2.50 overall GPA and a 2.50 major GPA are required for admission to the teacher program and student teaching. See the teacher education requirements on p. 101.

**DRIVER'S EDUCATION ADD-ON ENDORSEMENT**

A Driver's Education add-on endorsement can be received upon completion of HLTH 410 and HLTH 412 if the candidate is licensed in Secondary or K-12.

**ATHLETIC TRAINING MAJOR**

The athletic training major prepares students for a career in athletic training, an allied health care profession. The program is fully accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Program admission is competitive and the number of qualified applicants admitted into the program is limited. Technical standards must be met for a student to enter the athletic training program. Students should see the athletic training website at: (<http://www.radford.edu/~atep>) for specific admittance and technical standards information.

**Core Curriculum 43**

Majors are required to take the following courses and are advised to take them as part of their Core Curriculum requirements:

MATH 137. College Algebra.	3
BIOL 105. Biology for Health Science.	4
PSYC 121. Introductory Psychology.	3
STAT 200. Introduction to Statistics.	3
HLTH 200. Wellness Lifestyle.	3

**ESHE General Courses 15**

ESHE 305. Principles and Practice of Strength and Conditioning.	3
ESHE 390. Kinesiology.	3

ESHE 350. Sport and Exercise Psychology.	3	322 or 310 and 311 must be completed with a minimum grade of “C” for graduation. All ATTR, ESHE, and HLTH courses are used for the calculation of the major grade point average.
ESHE 392. Exercise Physiology.	3	
HLTH 465. Exercise, Performance, and Nutrition.	3	

**Athletic Training Major 60-62**

ATTR 150. Fundamentals of Athletic Training.#	1
ESHE 201. Introduction to Athletic Injuries.#	3
ATTR 205. Introduction to Athletic Training Skills.#	2
ATTR 225. Practicum I.#	1
ATTR 250. Practicum II.#	3
ATTR 323. Assessment of Athletic Injuries I.#	3
ATTR 325. Practicum III.#	3
*ATTR 333. Athletic Training Skill Assessment.#	1
ATTR 335. Seminar in Athletic Training.*#	2
ATTR 340. General Medical Conditions and Concerns.#	3
ATTR 345. General Medical Rotation.#	1
ATTR 355. Practicum IV.#	4
ATTR 365. Therapeutic Exercise.#	4
ATTR 420. Therapeutic Modalities.#	4
ATTR 422. Assessment of Athletic Injuries II.#	3
ATTR 425. O&A of AT Programs.#	3
ATTR 430. Senior Seminar.#	3
HLTH 320. Health and Safety Foundations.	3
BIOL 310/311. Human Structure and Function I/II.#	
or	
**BIOL 322. Human Anatomy and Physiology.#	6-8
CHEM 101. General Chemistry.	
or	
CHEM 120. Chemistry of Life.	4

**Credits needed for degree 120**

- \*This course must be taken 4 times.
- \*\*If a student selects BIOL 322, he/she must take at least 2 additional elective credits.
- #Course must be passed with a “C” or better.

**Major Grade Point Average (GPA)**

A 2.5 cumulative and in major grade point average is required for graduation for this major. All ATTR courses, ESHE 201, and BIOL

**ATHLETIC TRAINING WITH HEALTH AND PHYSICAL EDUCATION LICENSURE Option Requirements 48**

**ESHE Courses 30**

ESHE 210. Introduction to Teaching Physical Education.	2
ESHE 294. Motor Development.	2
ESHE 301. Theory and Practice of Fitness/Wellness.	2
ESHE 302. Theory and Practice of Individual/Dual Activities.	2
ESHE 304. Theory and Practice of Team Sport Activities.	2
ESHE 306. Theory and Practice of Cooperative Games and Activities.	2
ESHE 382. Methods for Teaching K-12 Physical Education.	3
ESHE 385. Teaching Physical Education for Inclusion.	2
ESHE 475. Applied Physical Education Assessment.	3
HLTH 362. Community Health and Disease.	3
HLTH 382. Methods of Teaching K-12 Health.	4
HLTH 451. Drug Use and Abuse Education.	3

**Professional Education Courses 6**

EDEF 320. The School and the Student.	3
EDRD 416. Content Reading and Literacy.	3

**Professional Student Teaching Fieldwork. 12**

ESHE 453. Student Teaching in PHED K-12.	12
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## NUTRITION AND DIETETICS MAJOR

The curriculum in Nutrition and Dietetics is interdisciplinary in nature and includes courses that provide a broad background to prepare students for employment as dietitians and nutritionists in a wide variety of settings. RU's program is accredited by the American Dietetic Association's Commission on Accreditation for Dietetics Education. Upon completion of the B.S. Degree, students are eligible to apply to an accredited dietetic internship and subsequently sit for the national registration exam, the final step in the credentialing process to become a Registered Dietitian (RD). Registered Dietitians are employed in hospitals, wellness centers, health departments, private practice, health-related agencies and consulting positions with pharmaceutical and food companies.

RU's curriculum is focused on preparing students for careers in wellness, disease prevention and nutrition therapy. Alternative career paths also include food service management, public health and the food industry.

### ACADEMIC ADVISING

All Nutrition and Dietetics students are assigned to a faculty advisor. Students are encouraged to consult with their academic advisor regularly to facilitate smooth progress towards completion of their degree. In addition, the Advising Center provides support and assistance to students and faculty within the department. Both faculty advisors and the Advising Center staff are committed to assisting students in: exploring educational and career options; clarifying university and departmental requirements; selecting appropriate courses; evaluating academic progress; and obtaining referral information for academic and student support services.

### B. S. DEGREE

All requirements for a degree are outlined below.

### Core Curriculum Requirements 43-45 (See p. 71.)

Majors are required to complete the following courses and are advised to take them as part of their Core Curriculum requirements:

CHEM 101. General Chemistry.	4
PSYC 121. Introductory Psychology.	3
MATH 137. College Algebra.	3
STAT 200. Introduction to Statistics.	3
NUTR 214. Introduction to Nutrition.	3

### Major Core Requirements 56

NUTR 100. Introduction to Professions of Nutrition and Dietetics.	2
NUTR 204. Food Science and Preparation.	4
NUTR 218. Food Service Studies I: Introduction to Food Service Systems.	3
NUTR 219. Food Service Studies II: Operations Management.	4
NUTR 300. Medical Terminology.	1
NUTR 303. Nutrition Assessment.	4
NUTR 304. Research Methods in Nutrition and Dietetics.	3
NUTR 314. Community and Cultural Nutrition.	3
NUTR 316. Nutrition in the Life Cycle I: Maternal and Child.	3
NUTR 317. Nutrition in the Life Cycle II: Adult and Elderly.	3
NUTR 414. Advanced Nutrition and Biochemistry I.	4
NUTR 415. Advanced Nutrition and Biochemistry II.	4
NUTR 420. Diet Planning and Preparation.	4
NUTR 425. Medical Nutrition Therapy I.	4
NUTR 426. Medical Nutrition Therapy II.	4
NUTR 435. Nutrition Counseling and Education I.	3
NUTR 436. Nutrition Counseling and Education II.	3

### Required Related Courses 12

BIOL 105. Biology for Health Science.	4
BIOL 334. Microbiology.	4
CHEM 103. General Chemistry.	4

**B.S. Degree Requirement**  
 BIOL 322. Anatomy and Physiology.

6  
 6

**Electives**  
 Recommended Electives include:  
 Spanish courses that indicate fluency in conversational Spanish.

3

**Major Grade Point Average (GPA)**  
 A 2.50 GPA on all college work attempted, a 2.5 GPA overall at RU, and a 2.5 GPA in the major are required to complete and graduate in this major.

**Total Credits Needed for Degree**      **120**

**ADMISSION CRITERIA TO UPPER DIVISION COURSES**

Applicants must meet the following criteria for admission to the Nutrition and Dietetics upper division coursework:

1. Official transcripts reflecting a cumulative GPA of 2.5 or better from all post secondary schools attended including RU.
2. Completion and grade of C or better in the following courses:
  - a. NUTR 100
  - b. NUTR 204
  - c. NUTR 214
  - d. CHEM 101 or CHEM 120
  - e. CHEM 103
  - f. BIOL 105
  - g. BIOL 322 or BIOL 310 and BIOL 311
3. All of the above courses must be completed before beginning upper division NUTR courses.
  - a. If any of the above courses have not been taken at the time of application, those students could be provisionally approved for registration into upper division course work.
  - b. If students do not complete the prerequisite courses with a C or better, admission to the courses will be withdrawn.
4. Submission of transcripts for those intending to enroll in upper division courses is due to the Advising Center by January 31 for fall enrollment.

**HONORS PROGRAM IN NUTRITION AND DIETETICS**

The Nutrition and Dietetics program offers an honors program. For a general description of the Honors Academy at Radford University, see p. 80. For specific requirements of this program, contact the department head or the director of the Honors Academy.

**EXERCISE, SPORT AND HEALTH EDUCATION MINORS**

Minors in ESHE are open to all students outside the ESHE Department at Radford University. All ESHE minors require 15-18 hours of approved course work.

Reminder: All required ESHE and HLTH prefix courses that are offered for either 3 or 4 hours credit at the 300 and 400 course levels require a minimum overall GPA of 2.5 excluding 3 hour activity-based courses.

**COACHING EDUCATION MINOR**      **15**

- ESHE 201. Introduction to Athletic Injuries. 3
- ESHE 212. Introduction to Sport Management. 3
- ESHE 305. Principles and Practice of Strength and Conditioning. 3
- ESHE 388. Coaching the Athlete. 3

- Choose one of the following:
- ESHE 350. Sport and Exercise Psychology. 3
  - HLTH 465. Exercise, Performance and Nutrition. 3

**EXERCISE AND SPORT SCIENCE MINOR**      **18**

- ESHE 201. Introduction to Athletic Injuries. 3
  - ESHE 305. Principles and Practice of Strength and Conditioning. 3
  - ESHE 390. Kinesiology. 3
  - ESHE 392. Exercise Physiology. 3
- Choose two of the following:
- ESHE 315. Physical Activity and Aging. 3
  - ESHE 396. Assessment and Prescription in ESHE. 3
  - HLTH 465. Exercise, Performance and Nutrition. 3

## ASIAN MARTIAL ARTS MINOR

ESHE 262. Introduction to Asian Martial Arts.

ESHE 310. Multicultural Self Defense Education.

ESHE 361. World Martial Arts.

Choose seven hours from the following:

ESHE 130. Karate.

or

ESHE 136. Taekwondo.

or

ESHE 330. Advanced Karate.

ESHE 201. Introduction to Athletic Injuries.

ESHE 362. Principles of Self Defense.

ESHE 364. Pre-Professional Fieldwork in ESHE.

HLTH 320. Health and Safety Foundations.

Study Abroad in Japan/China/Korea with course of study to be assigned by advisor

## SPORT ADMINISTRATION MINOR

ESHE 212. Introduction to Sport Management.

ESHE 360. Marketing of ESHE.

ESHE 388. Coaching the Athlete.

ESHE 415. Issues in Sport Management.

Choose two of the following:

ESHE 201. Introduction to Athletic Injuries.

ESHE 305. Principles and Practice of Strength and Conditioning.

ESHE 350. Sport and Exercise Psychology.

ESHE 358. Technology for ESHE.

ESHE 391. Exercise Science.

Approved interdisciplinary course.

## RECREATION, PARKS AND TOURISM

**Edward Udd\***, Chairperson

[www.radford.edu/~recparks/](http://www.radford.edu/~recparks/)

## UNDERGRADUATE PROGRAM

The mission of the department is to assist in promoting the full potential for quality of life for

16 the citizens of the region, the Commonwealth of Virginia, and the nation. Thus, the faculty is committed to excellence in teaching, advising, scholarship, research and service. The Recreation, Parks, and Tourism degree is accredited 3 by the National Parks and Recreation Council of Accreditation for Parks, Recreation, Tourism and Related Fields. 3

The department provides each student with opportunities, resources, and guidance to enhance the quality of life of individuals through effective leadership in tourism and special events, recreation therapy, and outdoor recreation. Toward this end, both the Bachelor of Science and Bachelor of Arts degrees are 1 designed for the student who is seeking basic, pre-professional knowledge, understanding and 3 experience toward a career in recreation, parks and tourism. 3

The undergraduate program and the recreation therapy concentration are accredited by the National Recreation and Park Association (NRPA); concentrations in tourism and special events and outdoor recreation are also available. Students who successfully complete courses, recommended electives, and a 560-hour internship in the recreation therapy concentration are qualified to take the national examination for certification through the National Council for Therapeutic Recreation Certification. Also, students who obtain a major in recreation, parks and tourism are eligible to take the national examination for a Certified Park and Recreational Professional through the National Recreation and Park Association National Certification Board.

## ACADEMIC ADVISING

All students are advised by the Academic Advising Center and are also assigned to a faculty advisor upon entry into the recreation, parks and tourism department. In addition, the Advising Center provides support and assistance to students and faculty within the department. Both faculty advisors and the Advising Center staff are committed to assisting students in: exploring educational and career options; clarifying university and departmental requirements; selecting appropriate courses; evaluating academic progress; and obtaining referral information for academic and student support services.

## B.A. OR B.S. DEGREE

### RECREATION, PARKS AND TOURISM MAJOR

All requirements for recreation, parks and tourism are outlined below. Among the requirements are Core Curriculum, major requirements, course work for one of three concentrations, and recreation, parks and tourism electives. All currently enrolled RU students must have a minimum 2.1 cumulative grade point average (GPA) or higher in order to be admitted to the major. All students new to RU, who do not have an RU grade point average, will be required to have a minimum 2.1 cumulative GPA before being admitted to the major. A minimum 2.1 cumulative grade point average (GPA) and 2.5 major GPA are required for RCPT 413: Professional Issues and RCPT 470: Internship. Major GPA is calculated from all RCPT courses.

#### Core Curriculum Requirements 43-45 (See p. 71)

Are required to take the following courses and are advised to take them as part of their Core Curriculum requirements:

For Recreation Therapy majors:

BIOL 105. Biology for Health Sciences.	4
PSYC 121. Introductory Psychology	3

For Outdoor Recreation majors:

BIOL 103. Environmental Biology	4
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#### Major Requirements 45

RCPT 112. Activity Leadership and Analysis.	3
RCPT 210. Introduction to Recreation, Parks and Tourism.	3
RCPT 230. Introduction to Outdoor Recreation.	3
RCPT 313. Program Planning in Recreation, Parks and Tourism.	3
RCPT 314. Recreation Workshop.	3
RCPT 319. Introduction to Recreation Therapy.	3
RCPT 328. Design and Maintenance of Recreation, Parks, and Tourism Resources.	3
RCPT 336. Research and Technology	

Applications in Recreation, Parks and Tourism.	3
RCPT 365. Legal Liability and Risk Management.	3
RCPT 413. Professional Issues in Recreation, Parks and Tourism.	3
RCPT 423. Recreation Administration.	3
RCPT 470. Internship.	12

Majors also must fulfill one of the following concentrations:

#### RECREATION THERAPY CONCENTRATION 24-26

BIOL 105. Biology for Health Science. (BIOL 104 is recommended)	4
PSYC 121. Introductory Psychology.	3
PSYC 230. Lifespan Developmental Psychology.	3
PSYC 439. Abnormal Psychology.	3
RCPT 340. Process in Recreation Therapy.	3
RCPT 342. Assessment in Recreation Therapy.	3
RCPT 344. Program Design and Evaluation in Recreation Therapy.	3
RCPT 445. Professional Advancement in Recreation Therapy.	3
PSYC 230. Lifespan Developmental Psychology.	3
PSYC 439. Abnormal Psychology.	3

Six to eight credits from:

BIOL 322. Human Anatomy and Physiology.	6
BIOL 310. Human Structure and Function I.	4
BIOL 311. Human Structure and Function II.	4

#### OUTDOOR RECREATION CONCENTRATION 18-20

BIOL 103. Environmental Biology.	4
RCPT 317. Adventure Programming.	3
RCPT 331. Outdoor Living Skills.	3
Six credits from:	6
RCPT 235. Camp Counseling.	3
RCPT 417. Topical Seminar. (Must be related to Outdoor Recreation)	3

RCPT 421. Ropes Course Programming.	3
RCPT 441. Advanced Ropes Course Programming.	3
RCPT 476. Wilderness Institute.	9

Six to eight credits of supportive elective courses from ANTH, ASTR, BIOL, COMS, CRJU, GEOG, GEOL, MGNT, MKTG, PHSC, PSYC, SOCY or SOWK. These hours meet the B.S. degree requirements. Radford University has an articulation agreement with the National Outdoor Leadership School (NOLS) whereby NOLS courses may be transferred for academic credit.

### **TOURISM AND SPECIAL EVENTS CONCENTRATION 18**

Twelve credits of Principle Courses:	
RCPT 350. Commercial Recreation.	3
RCPT 363. Special Events.	3
RCPT 431. Sustainable Tourism.	3
RCPT 435. Tourism and Event Marketing	3
or	

One 3-credit Principle Course (above) at RU and 9 credits from:

RCPT 480. Global Exchange in Recreation, Parks and Tourism.	1-9
RCPT 481. Tourism Institute	9

Six credits of Supportive Elective courses from: ACTG, ANSC, ASTR, BIOL, BLAW, COED, COMS, CRJU, ECON, FORL, GEOG, GEOL, LEAD, MGMT, MKTG, NUTR, PHSC, PSYC, SOCY or SOWK.

### **HONORS PROGRAM**

The Recreation, Parks and Tourism Department offers a departmental honors program. For a general description of the Honors Academy at Radford University, see p. 80. For specific requirements of this department's program, contact the department chairperson or the director of the Honors Academy.

### **SCHOOL OF TEACHER EDUCATION AND LEADERSHIP**

**Sandra Moore\*, Director**  
**Jennifer Jones\*, Assistant Director**  
<https://php.radford.edu/~stel/>

### **TEACHER EDUCATION PROGRAMS**

Students seeking licensure to teach in early childhood education/early childhood special education, hearing impairment (preK-12) special education - general curriculum, and elementary or middle school education must major in Interdisciplinary Studies. Students who seek licensure to teach in secondary schools (grades 6-12) complete an approved Bachelor of Arts or Bachelor of Science degree in a specific major and also complete the Secondary Education Licensure Option.

General information regarding admission and retention in the Teacher Education Programs can be found on p. 93.

### **ACADEMIC ADVISING**

All freshmen enrolled in the elementary education program are advised in the Center for Academic Advising and Student Support and are assigned a faculty advisor at the end of the freshman year or when program grade point average requirements are met. The Advising Center provides support and assistance to all students and faculty within the school. Students are encouraged to consult with their academic advisor regularly to facilitate smooth progress towards completion of their degree.

### **ELEMENTARY EDUCATION**

Students who intend to seek a license to teach elementary education (grades PreK - 6 / IDSE) complete an Interdisciplinary Studies degree with concentrations in two of the following areas: science, social science, English, special education, mathematics/statistics, or foreign language. Courses taken to complete the 12-hour social science concentration must

be selected from at least two of the following areas: economics, history, geography, or political science.

**Core Curriculum Requirements 43-45**

Majors are required to take the following courses and are advised to take them as part of their Core Curriculum requirements:

- MATH 111. Math Content for Teachers I. 3
- MATH 112. Math Content for Teachers II. 3
- HIST 111. U.S History to 1865.
- or
- HIST 112. U.S. History since 1865. 3
- HIST 101. World History to 1500
- or
- HIST 102. World History since 1500 3
- ECON 105. Principles of Macroeconomics
- or
- ECON 106. Principles of Microeconomics 3
- GEOG 101. Europe and the Americas
- or
- GEOG 102. Africa and Asia
- or
- GEOG 140. Introduction to Environmental Studies
- or
- GEOG 280. Regional Geography 3

**Interdisciplinary Core 19**

- POSC 110. Introduction to Politics
- or
- POSC 120. Introduction to American Government 3
- Math: MATH 312. Elementary and Middle Grades Mathematics for Social Analysis. 3
- HUMD 300. Human Growth and Development Birth through Adolescence. 3
- ENGL 463. Grammar and Language for Teachers. 3
- PHSC 350. Introduction to the Physical Science Processes. 4
- EDSP 361. Introduction to Students with Diverse Learning Needs and the Special Education Process. 3

**Concentrations 24**

Students must choose two concentrations from English, mathematics, science, social science (economics, history, geography, and political science), foreign language, and special education.

**Elementary Education Licensure Option 39**

(Grades PreK-6)

- EDEF 320. Introduction to Professional Education. 3
- EDUC 310. Teaching and Learning Elementary Science. 3
- EDRD 314. Development and Instruction for Emergent and Beginning Readers. 3
- EDUC 304. Teaching Language Arts. 3
- \*EDUC 410. Teaching and Learning Elementary Mathematics. 3
- \*EDRD 414. Reading II: Comprehension Instruction and Assessment Practices in Reading. 3
- \*EDUC 425. Curriculum, Instruction, and Teaching: Social Studies Connections. 3
- \*EDUC 430. Field Applications of Professional Studies in the Elementary Classroom. 6
- \* EDSP 361. Introduction to Students with Diverse Learning Needs and the Special Education Process. 3
- EDUC 450. Student Teaching: Grades PreK-6. 12

\*These requirements make up the early field experience program.  
 \*Satisfied in the Interdisciplinary Core

**Total Credits Needed for Degree 125**

**MIDDLE SCHOOL EDUCATION**

Students seeking licensure in middle school education (grades 6-8 / IDSM) complete an Interdisciplinary Studies degree with concentrations in two of the following areas: mathematics, science, social science, or English. Courses taken to complete the 21-hour social science concentration must be selected from the following areas: history, geography, economics, or political science. The

concentrations have specific requirements that reflect licensure requirements; students are advised to work closely with their faculty advisor when selecting courses for their concentrations. Also, ENGL 425 and EDSP 361 must be completed as part of the Interdisciplinary Core. Courses from the Core Curriculum (maximum of 9 hours in a specific concentration) are used to meet the 21-hour concentration requirement.

### **Core Curriculum Requirements 43-45**

Students need to choose courses for the Core Curriculum in consultation with the academic advisor because 9 hours can be used from the Core Curriculum to supplement each concentration area; although these hours are not double counted, they are used to meet the 21-hour concentration requirement. Students are encouraged to include MATH 111 Math Content for Teachers I and MATH 112 Math Content for Teachers in their Core Curriculum course work.

### **Interdisciplinary Core 19**

Visual and Performing Arts.  
(Any class from Art, Dance, Music, Theatre) 3  
Math: Any math, statistics, computer science or ITEC (Recommend MATH 312) 3  
ENGL 425. Adolescent Literature. 3  
HUMD 300. Human Growth and Development Birth through Adolescence. 3  
Science: Any 4-hour lab science  
(PHSC 350. Intro to the Physical Science Processes (recommended) 4  
\*EDSP 361. Introduction to Students with Diverse Learning Needs and the Special Education Process. 3

### **Concentrations 24**

Students must choose two from English, mathematics, science, social science (economics, history, geography, and political science).

### **Middle Education Licensure Option (Grades 6-8) 35**

EDEF 320. Introduction to Professional Education. 3  
\*EDME 408. Approaches to Teaching. 3  
\*EDME 409. The Middle School Learner. 2  
\*EDME 410. Community: A Middle School Perspective. 2

\*EDET 411. Technology for Middle School Teachers 2  
\*EDME 413. Conceptualizing, Planning and Teaching. 2  
\*EDRD 415. Interdisciplinary Connections through Reading and Writing. 3  
\*EDME 432. Middle Level Teacher Assistant Program. 6  
\*\* EDSP 361. Introduction to Students with Diverse Learning Needs and the Special Education Process. 3  
EDUC 451. Student Teaching. 12

\*Courses make up the early field experience program.

\*Satisfied in the Interdisciplinary Core.

### **Total Credits Needed for Degree 121**

## **SECONDARY EDUCATION**

Students who seek licensure to teach in secondary schools (grades 6-12) complete an approved Bachelor of Arts or Bachelor of Science degree in a specific major (math, biology, chemistry, earth science, physics, social studies, or English) and also complete the Secondary Education Licensure Option described below.

### **Licensure Program Grades 6-12 36-39**

HUMD 300. Child and Adolescent Development Birth through Adolescents. 3  
EDEF 320. Introduction to Professional Education. 3  
EDUC 440. Teaching Grades 6-12. 3  
\*EDUC 441. Field Experience Grades 6-12. 3-6  
\*\*EDRD 416. Reading in the Content Area. 3  
EDET 445. Integration of Educational Technology. 3  
EDSP 404. Introduction to Special Education for Secondary Educators. 3  
EDUC 442. Teaching Grades 9-12. 3  
EDUC 452. Student Teaching Grades 9-12. 12

\*Secondary social studies majors must take EDUC 441 for six (6) credit hours; secondary mathematics, science, or English majors may take EDUC 441 for three (3) credit hours.

\*\*EDRD 416 is not required in the English education program.

Departmental courses in the student's teaching endorsement content area, i.e., mathematics, English, social studies, and science, are required in addition to those courses listed.

## DEAF/HARD OF HEARING OPTION (IDHH)

Licensure Option (Hearing Impairment, preK-12): B.S. in Interdisciplinary Studies with Concentrations in Special Education and Communication Sciences and Disorders.

For students interested in teaching students who are deaf/hard of hearing, the College of Education and Human Development offers a Special Education: Hearing Impairment PreK-12 (IDHH) licensure option within the Interdisciplinary Studies major. In addition to Core Curriculum requirements, the Interdisciplinary Core, and Professional Education coursework, students complete concentrations in Communication Sciences and Disorders and Special Education. Students must complete EDSP 361 as part of the Interdisciplinary Core and other specific courses in their core curriculum requirements. Upon admission to the Professional Education Program, students will do their student teaching experience at two age levels with children and youth who are deaf/hard of hearing.

### Core Curriculum Requirements 43-45

All majors must complete the following courses and are advised to take them as part of their Core Curriculum requirements:

HIST 101. World History to 1500.	
or	
HIST 102. World History since 1500.	3
ENGL 200. Literary Texts and Contexts.	3
MATH 111. Math Content for Teachers I.	3
MATH 112. Math Content for Teachers II	3

HIST 111. U.S. History to 1865.	
or	
HIST 112. U.S. History since 1865.	3

### Interdisciplinary Core 25

Math 312. Elementary and Middle Grades Mathematics for Social Analysis.	3
HUMD 300 Human Growth and Development Birth through Adolescence.	3
ENGL 463. Grammar and Language for Teachers.	3
PHSC 350. Introduction to the Physical Science Processes.	4
EDSP 361. Introduction to Students with Diverse Learning Needs and the Special Education Process.	3
Electives (must be approved by advisor) (Recommended electives: EDRD 314, EDSP 445, and EDUC 310)	9

### Required Courses in Communication Sciences and Disorders Concentration 18

COSD 221. Introduction to American Sign Language (ASL) and Deaf Culture.	3
COSD 222: American Sign Language (ASL) II.	3
COSD 223. American Sign Language (ASL) III.	3
COSD 224. American Sign Language (ASL) IV	3
COSD 421. Language Development Birth to Five Years.	3
COSD 422. Audiologic Rehabilitation.	3

### Required Courses in Special Education Concentration 15

EDSP 426. Introduction to Deaf/Hard of Hearing.	3
EDSP 428. Language Development And Literacy for Deaf and Hard of Hearing Students.	3
EDSP 451. Collaborative Consultation and Communication Skills for Special Education.	3
EDSP 462. Proactive Classroom Management and Positive Behavior Support.	3
EDSP 469. Evaluative Techniques.	3

<b>Required Courses in Professional Education</b>	<b>22</b>
EDEF 320. Introduction to Professional Education.	3
EDSP 427. Curriculum and Methods for Deaf and Hard of Hearing Students.	3
EDSP 432. Practicum: Deaf and Hard of Hearing.	4
EDSP 455/456. Student Teaching in Special Education: Deaf and Hard of Hearing (Preschool-Elementary and Secondary)	12
<b>Total Hours in Program</b>	<b>123</b>

### EARLY CHILDHOOD EDUCATION AND EARLY CHILDHOOD SPECIAL EDUCATION OPTION

Pre-Professional Option: B.S. in Interdisciplinary Studies with concentrations in Early Childhood Education and Early Childhood Special Education (IDEC) with 5th Year M.S. Leading to Dual Licensure in Early Childhood Education (PreK-3), and Early Childhood Special Education, (Birth-Age 5 all disabilities)

For students interested in teaching young children, the College of Education and Human Development offers a unified early childhood education and early childhood special education option within the Interdisciplinary Studies major. This option provides the basis for a 5th Year M.S. in Education with Virginia licensure in both early childhood education (pre-kindergarten through third grade) and early childhood special education (children with all disabilities from birth through age five). Students must complete EDSP 360 as part of the Interdisciplinary Core.

Completion of the 5th year M.S. program, which includes semester-long internship experiences, is required for Virginia licensure in early childhood education (PreK-3) and early childhood special education (birth to age 5, all disabilities). Students must meet all requirements for admission to the College of Graduate and Professional Studies before being enrolled in the graduate portion of the program.

Students are expected to complete the graduate admissions process during the fall of their

senior year. (See the *Radford University Graduate Catalog* for further details.) In addition, students must apply to the Teacher Education Program (see admission procedures for details). They must meet the requirements for admission and retention as outlined on p. 101 of this catalog. Upon admission to the Teacher Education Program, students will do their student teaching experiences with children in early childhood and early childhood special education settings.

### Course Requirements

#### Core Curriculum Requirements 43-45 (See p. 71.)

The following course is required for the major and students are urged to take it as part of their Core Curriculum requirements:

MATH 111. Math Content for Teachers I.	3
HIST 111. U.S History to 1865.	3
HIST 101. World History to 1500.	
or	
HIST 102. World History after 1500	3
POSC 120. Introduction to American Government.	3
ECON 105. Principles of Macroeconomics.	
or	
ECON 106. Principles of Microeconomics.	3
GEOG 101. Europe and the Americas.	
or	
GEOG 140. Introduction to Environmental Studies.	
or	
GEOG 280. Regional Geography.	3

The student should consult with their academic advisor to review the recommended courses for the Core Curriculum in this major.

<b>Interdisciplinary Core</b>	<b>22</b>
EDUC 310. Teaching and Learning Elementary Science.	3
Mathematics (MATH 312. Elementary and Middle Grades Mathematics for Social Analysis recommended)	3
Humanities (ENGL 424. The Study of Children's Literature or 463. Grammar and Language for Teachers recommended)	3

HUMD 300. Human Growth and Development Birth through Adolescence. Science (PHSC 350 recommended)	3	Students not seeking licensure must take:	
EDSP 360. Introduction to Early Childhood Special Education.	4	EDSP 440. Practicum in Early Intervention.	3
HIST 112. U.S. History since 1865.	3	EDSP 445. Adaptive Strategies in Mathematics.	3
	3	EDSP 462. Proactive Classroom Management and Positive Behavior Support.	3

**Required Courses in Early Childhood Development Concentration**

EDEC 321. Early Learning and Development: Infants and Toddlers.	4	<b>17</b>
EDEC 322. Early Learning and Development: Preschool through Primary Grades.	4	
EDEC 323. Language Arts and Literatures for Young Children.	3	
EDEC 400. Foundations, Programs and Trends in Early Childhood.	3	
EDET 454. Educational Technology for Diverse Populations.	3	

**Required Courses in Special Education Concentration**

COSD 421. Language Development: Birth to Five Years.	3	<b>18</b>
EDSP 436. Teaching Infants, Toddlers, and Preschoolers with Disabilities.	3	
EDSP 437. Assessment of Young Children with Special Needs.	3	
EDSP 438. Program Management in ECSE.	3	
EDSP 439. Medical and Neurodevelopmental Aspects of Teaching Young Children with Disabilities.	3	
EDSP 451. Collaborative Consultation and Communication Skills for Special Education.	3	

**Required Courses in Professional Education**

EDRD 413. Early Literacy and Learning.	3	<b>21</b>
EDEC 425. Assessment-Based Instruction and Adaptations for Young Children (PreK-3rd Grade).	3	
EDEC 430. Practicum in Early Childhood Education.	6	
EDSP 440. Practicum in Early Intervention.	3	
EDSP 445. Adaptive Strategies in Mathematics.	3	
Elective (approved by advisor)	3	

**Total Hours for Bachelor of Science Degree in Interdisciplinary Studies: Early Childhood**

**122**

Students wanting Virginia licensure must continue in the M.S. in Education with a concentration in Early Childhood Education

**FIFTH YEAR LICENSURE IN EARLY CHILDHOOD EDUCATION AND EARLY CHILDHOOD SPECIAL EDUCATION**

Students must meet all requirements for admission to (a) the College of Graduate and Professional Studies and (b) the Teacher Education Program before being enrolled in the graduate portion of the program. Students are expected to complete the admissions process during the fall of their senior year. (See the *Radford University Graduate Catalog* for further details on graduate admissions. (See p. 101 of this catalog for details on admission to the Teacher Education Program.) The following courses are included in the 5th year graduate portion of the licensure program in Early Childhood Education and Early Childhood Special Education

**Required Courses and Field Experiences**

**36**

EDET 620. Educational Technology: Applications, Applied Research and Integration	3
EDEF 606. Educational Research.	3
EDUC 670. Basic Principles and Practices of Multicultural Education.	3
EDEF 607. Educational Foundations.	3
EDRD 688. Advanced Study in Reading Skills.	3
EDSP 670. Proactive Classroom Management and Advanced Positive Behavior Support.	3
EDSP 750. Internship in Early	

Childhood Special Education.	9
EDEC 750 Internship in Early Childhood Education.	9

## **SPECIAL EDUCATION – GENERAL CURRICULUM OPTION**

Pre-Professional Option: B.A. or B.S. in Interdisciplinary Studies with a Concentration in Special Education: General Curriculum, K-12 and an Academic Area (IDSP) with 5th year M.S. in Special Education leading to teacher licensure in Special Education: General Curriculum, K-12.

This option within the Interdisciplinary Studies major is designed for students interested in teaching children and youth with disabilities in the general education curriculum. The emphasis is on preparing effective teachers who can work collaboratively in today’s complex and diverse classrooms to maximize learning for all children. In addition to Core Curriculum requirements, the Interdisciplinary Core, and Professional Education coursework, students complete concentrations in Special Education and a second academic area (English, Math and Computer Science, Foreign Language, Science, or selected Social Science). In addition, students must apply to the Teacher Education Program (see admissions procedures for details). They must meet the requirements for admission and retention as outlined on p. 93 of this catalog. Students complete EDSP 361 as part of the Interdisciplinary Core.

Completion of the fifth year M.S. program, which includes graduate coursework and two clinical experiences, is required for Virginia licensure with endorsements in Special Education - General Curriculum, K-12. Students must meet all requirements for admission to the College of Graduate and Professional Studies before being enrolled in the graduate portion of the program. Students are expected to complete the admissions process during the fall of their senior year. (See the *Radford University Graduate Catalog* for further details.) Upon admission to the Professional Education Program, graduate students will do their student teaching experience at two age levels with children and youth who have high incidence disabilities.

## **SPECIAL EDUCATION – GENERAL AND ADAPTED CURRICULUM OPTION**

Pre-Professional Option: B.A. or B.S. in Interdisciplinary Studies with a Concentration in Special Education: General Curriculum, K-12 and an Academic Area (IDSP) with 5th year M.S. in special education leading to teacher licensure in Special Education: General Curriculum, K-12 and Special Education: Adapted Curriculum, K-12.

This option within the Interdisciplinary Studies major is designed for students interested in teaching children and youth with disabilities in the general education curriculum and adapted curriculum.

The emphasis is on preparing effective teachers who can work collaboratively in today’s complex and diverse classrooms to maximize learning for all children. In addition to Core Curriculum requirements, the Interdisciplinary Core, and Professional Education coursework, students complete concentrations in Special Education and a second academic area (English, Math and Computer Science, Foreign Language, Science, or selected Social Science).

In addition, students must apply to the Teacher Education Program (see admissions procedures for details.) They must meet the requirements for admission and retention as outlined on p. 93 of this catalog. Students complete EDSP 361 as part of the Interdisciplinary Core.

Completion of the fifth year M.S. program, which includes graduate coursework and two clinical experiences, is required for Virginia licensure with endorsements in Special Education – General Curriculum, K-12 and Special Education – Adapted Curriculum, K-12 (students may elect single licensure in special education-general curriculum as listed above). Students must meet all requirements for admission to the College of Graduate and Professional Studies before being enrolled in the graduate portion of the program. Students are expected to complete the admissions process during the fall of their senior year (see the *Radford University Graduate Catalog* for further details). Upon admission to the Professional Education Program, graduate students will do their student teaching experience at two age levels with children and youth who have disabilities that affect their progress

in the general curriculum and those that necessitate an adapted curriculum.

## Course Requirements

### Core Curriculum Requirements 43-45

All majors are required to take the following courses and are advised to take them as part of their Core Curriculum requirements:

MATH 111. Math Content for Teachers I.	3
MATH 112. Math Content for Teachers II.	3
ENGL 200. Literary Texts and Contexts.	3
HIST 101. World History to 1500.	
or	
HIST 102. World History since 1500.	3
HIST 111. U.S. History to 1865.	
or	
HIST 112. U.S. History since 1865.	3

The student should consult with their academic advisor to review additional recommended courses for the Core Curriculum in this major.

### Interdisciplinary Core 19

MATH 312. Elementary and Middle Grades Mathematics for Social Analysis.	3
EDSP/EDET 454. Educational Technology for Diverse Populations.	3
ENGL 463. Grammar and Language for Teachers	3
HUMD 300. Human Growth and Development Birth through Adolescence.	3
PHSC 350. Introduction to the Physical Science Processes.	4
EDSP 361. Introduction to Students with Diverse Learning Needs and the Special Education Process.	3

### Concentration 12

English, Science, Math, Foreign Language, or Social Science (HIST, POSC, GEOG, ECON).

### Required Courses in Special Education Concentration 12

EDSP 445. Adaptive Strategies in Mathematics.	
or	

EDUC 410. Teaching and Learning Elementary Mathematics	3
EDSP 451. Collaborative Consultation and Communication Skills for Special Education.	3
EDSP 462. Proactive Classroom Management and Positive Behavior Support.	3
EDSP 472. Characteristics of Students with Disabilities who Access the General Education Curriculum.	3

### Required Courses in Professional Education 21

EDUC 310. Teaching and Learning Elementary Science.	3
EDUC 425. Curriculum, Instruction, And Teaching: Social Studies Connections.	3
EDEF 320. Introduction to Professional Education.	3
EDRD 314. Development and Instruction for Emergent and Beginning Readers.	3
EDRD 414. Reading II: Comprehension Instruction and Assessment Practices in Reading.	3
EDSP 400. Introduction to Autism Spectrum Disorders.	3
EDSP 429. Practicum: Special Education: General Curriculum: Secondary.	6
EDSP 430. Practicum: Special Education: General Curriculum: Elementary.	6
EDSP 464. Introduction to Students Who Access Adapted Curriculum Disabilities.	3
EDSP 791-792. Teaching Internship In Special Education -- General Curriculum (Elementary and Secondary)	12

\*Taken during senior year of undergraduate program – 3.0 GPA required.

### SPECIAL EDUCATION NON-ENDORSEMENT CONCENTRATION

This option provides a common set of knowledge and skills for elementary teachers of students with exceptionalities who do not seek the endorsement in Special Education. This option consists of the following courses for a concentration within the Elementary Education Licensure Option of the Interdisciplinary Studies major:

<b>Requirements</b>	<b>15</b>	<b>Required Courses</b>	<b>3</b>
EDSP 361. Introduction to Students with Diverse Learning Needs and the Special Education Process. (Completed in the Interdisciplinary Core)	3	Choose one of the following: EDSP 360. Introduction to Early Childhood Special Education.	3
EDSP 451. Collaborative Consultation and Communication Skills for Special Education.	3	EDSP 361. Introduction to Students with Diverse Learning Needs and the Special Education Process.	3
EDSP 462. Proactive Classroom Management and Positive Behavior Support.	3	<b>Electives</b>	<b>15</b>
EDSP 472. Characteristics of Students with Disabilities who Access the General Education Curriculum.	3	EDSP/COSD 225. Communication Processes, Development, and Disorders.	3
Three additional semester hours chosen from:		EDSP 426. Introduction to Deaf / Hard of Hearing.	3
EDSP 225. Communication Processes, Development and Disorders.	3	EDSP 427. Curriculum and Methods for Deaf/Hard of Hearing Students.	3
EDSP 400. Introduction to Autism Spectrum Disorders	3	EDSP 428. Language Development and Literacy for Deaf and Hard of Hearing Students.	3
EDSP 426. Introduction to Deaf / Hard of Hearing.	3	EDSP 436. Teaching Infants, Toddlers and Preschoolers with Disabilities.	3
EDSP 427 Curriculum and Methods For Deaf/Hard of Hearing Students	3	EDSP 437. Assessment of Young Children with Special Needs.	3
EDSP 436. Teaching Infants, Toddlers And Preschoolers with Special Needs	3	EDSP 438. Program Management in Early Childhood Special Education.	3
EDSP 437 Assessment of Young Children with Special Needs	3	EDSP 439. Medical and Neurodevelopmental Aspects of Teaching Young Children with Disabilities.	3
EDSP 439. Medical Aspects of Teaching Young Children	3	EDSP 445. Adaptive Strategies in Mathematics.	3
EDSP/EDET 454. Educational Technology for Diverse Populations	3	EDSP 451. Collaborative Consultation and Communication Skills for Special Education.	3
EDSP 466. Teaching Students with Individualized Adapted Curriculum	3	EDSP 462. Proactive Classroom Management and Positive Behavior Support.	3
EDSP 469. Evaluative Techniques	3	EDSP 464. Introduction to Students Who Access Adapted Curriculum Who Access Adapted Curriculum.	3

**SPECIAL EDUCATION MINOR  
(18 semester hours)**

*Prerequisites: A minimum 2.5 grade point average*

The minor in Special Education consists of 18 semester hours and includes either EDSP 360 or EDSP 361 as a prerequisite to the remaining 15 credit hours. The remaining 15 credit hours may be selected, with the approval of a faculty advisor from the department, from the electives listed below. Note that some courses available in the minor have additional prerequisites.

**GRADUATE PROGRAMS**

The School of Teacher Education and Leadership offers a number of programs leading to the Master of Science degree.

M.S. in Education – Kristan Morrison,  
Graduate Coordinator  
MS in Educational Leadership – Bill Flora,  
Graduate Coordinator  
MS in Literacy Education – Don Langrehr,  
Graduate Coordinator  
MS in Special Education – Kathy Hoover,  
Graduate Coordinator

For further information, consult the *Radford University Graduate Catalog* or website and/or the School of Teacher Education and Leadership website.

## **COUNSELING AND HUMAN DEVELOPMENT**

**Alan Forrest\*, Chairperson**  
**[www.radford.edu/~edcs-web/](http://www.radford.edu/~edcs-web/)**

The Department of Counselor Education offers the Master of Science degree with programs in K-12 School Counseling and Clinical Mental Health Counseling. For more information, consult the *Radford University Graduate Catalog*.

The department also offers courses for undergraduates:

COED 260: Seminar in Career Development.  
COED 270: Student-Athlete Career Education and Development Seminar.  
COED 450: Instructing the First Year Student.  
COED 461: Highlanders In Action Internship.

# WALDRON COLLEGE OF HEALTH AND HUMAN SERVICES

**Dr. Raymond N. Linville\*, Dean**  
Waldron Hall 342, (540) 831-7600

**Dr. Kenneth M. Cox\*, Associate Dean**  
Waldron Hall 347, (540) 831-7634

**Ms. Loretta Estes, Advising Coordinator  
and Assistant to the Dean**  
Waldron Hall 351, (540) 831-7699

The Waldron College of Health and Human Services provides undergraduate, master, and doctoral students with programs of study for entry into, and advancement within, health related professions, as well as meeting credentialing requirements. The undergraduate programs combine a liberal arts and science base with discipline-specific study. The graduate programs provide specialization and advanced study. Undergraduate and graduate programs are both characterized by an emphasis on integrating theory and research with practicum experiences. All programs prepare graduates to contribute to the health and well being of the citizens of the region, the Commonwealth of Virginia, and the nation. The faculty members are highly committed to teaching, promoting student development, and to advancing scholarship, research, and practice.

The Waldron College of Health and Human Services consists of five different disciplines. Depending on their choice of undergraduate major, students in the college may elect to pursue a Bachelor of Science, Bachelor of Arts, Bachelor of Science in Nursing (B.S.N.), or a Bachelor of Social Work (B.S.W.) degree.

NOTE: Each program of study has published specific technical standards for successful program completion. Students must consult the program directly to ascertain their ability to meet program completion standards. In addition, all students in the College must adhere to the "Standards of Professional Practice Education," available in the College Advising Center.

The Waldron College of Health and Human Services is composed of the following schools and departments:

Communication Sciences and Disorders	p. 119
School of Nursing	p. 122
School of Social Work	p. 128

\*Occupational Therapy

\*Physical Therapy

\*See the *Radford University Graduate Catalog* for program details.

## COMMUNICATION SCIENCES AND DISORDERS

**Dr. Kenneth W. Cox\*,  
Interim Chairperson**  
[www.radford.edu/~cosd-web/](http://www.radford.edu/~cosd-web/)

## UNDERGRADUATE PROGRAM

The mission of the Department of Communication Sciences and Disorders is to develop professionals who are ethical, knowledgeable, skillful, and capable of working independently and in collaboration with clients, families, and other professionals.

The commitment of the department to this mission is reflected in the undergraduate liberal arts and sciences requirements; in the academic course work in normal and abnormal development and behavior across the human life span; in course work that engenders awareness of issues in culturally diverse populations; in human communication disorders, and in diagnostic and treatment methodologies; in clinical practica requirements; and in course work teaching research skills that support lifelong learning.

The department offers an accredited graduate program in Speech-Language Pathology and a pre-professional undergraduate program. At the undergraduate level, the department offers

a Bachelor of Arts or a Bachelor of Science degree in Communication Sciences and Disorders.

The professional practice of speech-language pathology and/or audiology requires a graduate degree from an accredited program. The department offers Master of Arts and Master of Science degrees at the graduate level. Individuals applying for national certification and state licensure must hold a master's (or doctoral) degree in the appropriate area of study, meet specific requirements in course work, practicum, and professional experience, and pass a national examination.

In the last year of undergraduate study, students apply to graduate programs in Speech-Language Pathology or Audiology. Completion of an undergraduate degree in Communication Sciences and Disorders (COSD) does not guarantee acceptance into a graduate program. Admission into graduate programs is competitive. Graduate school admission requirements and procedures are available in both the printed and on-line versions of the *Radford University Graduate Catalog*.

## ADVISING

### Freshman and Sophomore Years

Students wishing to pursue a bachelor's degree in Communication Sciences and Disorders (COSD) enter the Waldron College of Health and Human Services as Pre-COSD majors. They are advised through the Waldron College Advising Center. In their first two years, students typically complete their Core Curriculum requirements as specified below.

### Junior and Senior Years

In order to be admitted as COSD majors, students must have junior class standing (completion of 56 semester credit hours) and have earned an overall grade point average of 2.5.

## COMMUNICATION SCIENCE AND DISORDERS 120

COSD majors are required to complete 1) Core Curriculum requirements, 2) COSD major requirements, 3) Additional requirements, 4) Specific degree requirements, and 5) \*Elective courses to reach a total of 120 credit hours for either the Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) degree.

\*The department strongly advises students to complete the 12 credit hour teacher licensure option as part of their elective hours. These courses are not required for the Bachelor's degree, but fulfill some of the requirements for teacher licensure, which is needed for employment in Virginia public schools. See "Teacher Licensure Option" below.

### Core Curriculum Requirements 44

COSD majors are required to take the following courses and are advised to take them as part of their Core Curriculum Requirements:

MATH 137. College Algebra. 3

(Recommended, but MATH 125 or higher will be accepted.)

BIOL 104. Human Biology.

or

BIOL 105. Biology for Health Science. 4

PSYC 121. Introduction to Psychology. 3

SOCY 110. Introduction to Sociology. 3

CHEM 120. Chemistry of Life.

or

PHYS 111. General Physics. 4

PHIL 112. Introduction: Ethics and Society. 3

(Recommended, but any approved Humanities Core course will be accepted.)

### COSD Major Requirements 37

COSD 221. Introduction to American Sign Language (ASL) and Deaf Culture. 3

COSD 225. Communication Processes, Development, and Disorders. 3

COSD 301. Anatomy and Physiology of the S-L-H Mechanism. 4

COSD 315. Language Science and Technology. 3

COSD 316. Hearing Science. 3

COSD 330. Introduction to Audiology. 3

COSD 401. Neuroanatomy in Communication Disorders.	3	PSYC 401. Psychology of the Exceptional or Child.	3
COSD 421. Language Development: Birth to Five Years.	3	EDSP 361. Current Trends in Education of Exceptional Individuals.	3
COSD 425. Later Language Development.	3	EDEF 320. Introduction to Professional Education.	3
COSD 438. Phonetics.	3	EDSP 469. Evaluative Techniques.	3
COSD 454. Speech-Language Disorders: Prevention and Assessment.	3	COSD 403. Public School Methods in a Diverse Society*.	3
COSD 455. Speech-Language Disorders: Intervention Methods and Application.	3	*Offered only in Summer. May be taken at the graduate level as COSD 511.	

**Additional Requirements** **6**

PSYC 230. Lifespan Developmental Psychology.	3
STAT 200. Introduction to Statistics.	3

**BA/BS REQUIREMENTS** **6-12**

**Bachelor of Arts**

Completion of the Foreign Language requirements described in the *Radford University Undergraduate Catalog*. (See p. 77.)

**Bachelor of Science**

Six to eight semester credit hours in courses approved by the department. Students should consult with their academic advisor for a listing of those courses.

Elective Courses (can include Teacher Licensure courses below)	21-27
<b>Total Hours Needed for Degree</b>	<b>120</b>

**TEACHER LICENSURE OPTION** **12**

Students wishing to obtain teacher certification upon completion of the graduate program are recommended to take the four courses below at the undergraduate level. The complete requirements for teacher licensure, which include a master's degree, are described on the Virginia Department of Education webpage under Licensure Regulations for School Personnel at: <http://www.pen.k12.va.us/VDOE/>.

**GRADUATION WITH HONORS IN COMMUNICATION SCIENCES AND DISORDERS**

Radford University awards two types of Honors degree, Latin Honors and Honors in the Major through the Honors Academy. All COSD undergraduate majors are encouraged to learn about the requirements for these awards and take advantage of the academic opportunities offered through the Honors Academy. A general description of the Honors Academy at Radford University is available in the undergraduate catalog and on online at: <http://www.radford.edu/~honors/index.html>.

**ACADEMIC STANDARDS**

To graduate with a bachelor's degree in COSD, students must meet the degree requirements stated in the Academic Policies section of the Radford University Undergraduate Catalog and earn a minimum grade of "C" in each COSD course. Students who earn lower than a "C" in any COSD course after exhausting the university repeat option will be withdrawn from the program. High grade point averages (e.g. >3.50) will facilitate possible admission into graduate programs.

## GRADUATE PROGRAM

The department offers a graduate program, which is accredited by the American Speech-Language-Hearing Association in speech-language pathology. Graduate school admission requirements and procedures are available in both the printed and on-line versions of the *Radford University Graduate Catalog*.

## SCHOOL OF NURSING

**Dr. Kimberly Ferren Carter,\* Director**  
**[www.radford.edu/~nurs-web](http://www.radford.edu/~nurs-web)**

## UNDERGRADUATE PROGRAM

Radford University School of Nursing embraces its tradition of innovative education, practice and scholarship to prepare excellent professional nurses who, by blending knowledge with caring, meet the changing health care needs of the region and beyond. The undergraduate nursing program leads to a Bachelor of Science in Nursing degree. This major includes the development of a broad Core Curriculum foundation in liberal arts and the physical, behavioral, and social sciences. Nursing courses are concentrated in the junior and senior years (upper division) of the four-year academic program and include classroom, laboratory and clinical learning experiences.

The mission of the Radford University School of Nursing is to educate professional nurses to meet the changing health care needs of the region, state, nation, and world. Educational experiences are designed to prepare students to provide nursing care sensitive to client's diversity. Students are responsible and accountable for nursing practice in keeping with the American Nurses Association's Standards of Clinical Nursing Practice.

The teaching and learning process involves a mutual partnership between students and faculty to develop a knowledge base in the liberal arts, sciences, and the discipline of nursing. This

partnership exists to promote critical thinking, ethical decision-making, and lifelong learning. Theory and skills learned in the classroom are applied through a variety of learning experiences. Faculty models the professional nursing role through teaching, scholarship, community service, and practice. Students are expected to develop a professional identity and professional values.

The curriculum is based on the faculty's beliefs regarding nursing's four metaparadigm concepts: client, environment, health, and nursing. The client is viewed as a holistic entity: a dynamic, interacting, irreducible whole. Clients can be individuals across the lifespan, families, aggregates, communities, and populations. Clients are diverse in such variables as age, gender, sexual orientation, culture, ethnicity, religion, socioeconomic status, lifestyle, values, and functional ability. There is constant interaction between the client and environment. Environment refers to all internal and external conditions, circumstances, and influences – including professional nursing – that interact and affect the client's safety and holistic health. Holistic health, a state of wholeness and a process of becoming increasingly integrated, is associated with evolving awareness of self and enhanced quality of life. The nurse and client form a partnership, and both are informed and flexible in negotiations to promote the client's holistic health.

Nursing is both an art and a science. Caring is the essence of professional nursing. The nursing process is utilized to provide evidence based nursing care across the lifespan. Professional nursing involves interdisciplinary collaboration and forming partnerships with clients to facilitate growth and life processes through effective communication and therapeutic nursing interventions.

Community based nursing practice provides for continuity of care and focuses on delivering the levels of care needed by the client. To reach this goal, professional nurses assume multiple roles, including clinician, educator, collaborator, advocate, information manager, consumer of research, manager, and leader. Nurses must possess the necessary knowledge and skills in health care and information technologies to

carry out these roles. Professional nurses influence legislation and policy to advance health care and nursing on a regional, state, national and global level.

## **GRADUATE PROGRAM**

The graduate program in Nursing offers courses leading to the Doctorate of Nursing Practice degree. The program is designed to provide advanced knowledge in nursing theory, research and practice. For more information about the Doctorate of Nursing Practice degree with a major in Nursing, consult the *Radford University Graduate Catalog*.

## **ACADEMIC ADVISING**

During their freshman and sophomore years, Pre-Nursing students are advised in the Waldron College Advising Center. When students are accepted into the upper division nursing sequence, they are assigned to a faculty advisor within the department. Students are encouraged to consult with their academic advisor regularly to facilitate smooth progress towards completion of their degree.

## **ACCREDITATION AND LICENSURE REQUIREMENTS**

The nursing program has been approved by the Virginia Board of Nursing and has full national accreditation. The practice of professional nursing in every state in the United States requires licensure as a Registered Nurse (RN). Successful completion of the nursing program requirements and the awarding of a Baccalaureate of Science in Nursing (BSN) degree qualify the graduate to take the national NCLEX-RN examination for registered nursing in the state of their choice. Opportunity to take this required licensure examination is obtained by application to the appropriate regulatory board of the state in which the applicant plans to practice nursing. The requirements

include personal and character criteria and may include criminal record check. The specific requirements are subject to change and vary from state to state. For more information about these requirements in Virginia, call or write:

Board of Nursing  
Department of Health Professions  
Commonwealth of Virginia  
9960 Mayland Drive, Suite 300  
Henrico, VA 23233-1463  
Telephone: (804) 367-4515  
Fax: (804) 527-4455

## **FUNCTIONAL AND TECHNICAL STANDARDS**

The following serves to notify prospective students of standards required for safe nursing practice. It is the student's responsibility to utilize a critical thinking process to assess, implement, and evaluate their ability to learn and fulfill these standards throughout the educational process and the act of professional nursing. If a student has a disability and requires special accommodations to meet the nursing major program requirements and standards, the student must provide the School of Nursing with documentation and a written plan. This should be obtained from the Radford University Disability Resource Office in the Center for Counseling and Student Development. The accommodation plan must meet increasingly stringent criteria as the student progresses within the program.

A student must be able to:

- Assimilate knowledge acquired through lectures, discussions, readings, and self-directed studies and effectively apply that knowledge in clinical settings for a variety of client needs and problems.
- Locate, retrieve, and utilize information from a variety of resources, e.g., electronic, libraries, people, and organizations.
- Accurately apply basic mathematical skills, e.g., ratio proportion concepts, use of conversion tables, and calculations of drug dosages and solutions.
- Comprehend and apply abstract concepts from biological, sociological, and psychological sciences.

- Organize thoughts to communicate effectively through written documents that are correct in style, grammar, and mechanics.
- Accurately read charts, records, scales, small print, handwritten notations, and distinguish colors.
- Distinguish tonal differences and be able to use the telephone.
- Distinguish odors, e.g., drugs, solutions, body fluids, smoke, and chemicals.
- Demonstrate sufficient tactile ability to differentiate changes in sensation, with and without the use of protective gloves, e.g., pulse, temperature, and skin irregularity.
- Manipulate equipment appropriately to provide nursing care to clients, e.g., syringes, infusion pumps, life support devices, and stethoscopes.
- Move unassisted from room to room, maneuver in small spaces, and stand for long periods of time.
- Provide a safe and clean environment, and be able to assist others in activities of daily living, e.g., walking, bathing, eating, toileting, transferring, and lifting.
- Appreciate the diversity of people relative to age, gender, sexual orientation, culture, ethnicity, religion, socioeconomic level, lifestyle, values, and functional ability.
- Establish interpersonal rapport sufficient to communicate, collaborate, and relate effectively with individuals, families, community groups, and health care professionals.
- Complete assignments within specified time periods, e.g., technical procedures, health assessments, written work, tests, and client documentation.
- Perform multiple tasks accurately in rapidly changing situations.
- Take responsibility for personal safety in laboratory and clinical environments.
- Adhere to the School of Nursing dress and professional behavior policy. Included in this policy, but not limited to, are expectations that fingernails will be kept short, body art will not be visible, and a maximum of one body piercing (small metal stud only) in each earlobe only will be exposed.

## **POLICIES AND PROCEDURE FOR ADMISSION TO UPPER DIVISION NURSING MAJOR**

(NOTE that requirements for admission into the School of Nursing are based on requirements in place at the time of application to the B.S.N. Program.)

- 1. Students electing to enter the School of Nursing enter as pre-nursing students. Students must apply for admission to the upper division nursing major by the deadline date for the semester desired. All students must have a minimum cumulative grade point average of no less than 2.5 to apply to the upper division nursing major; however, the actual G.P.A. required for admission may be significantly higher. Admission is competitive, with admission granted on a space available basis.
- 2. Transfer students are advised that after 24 credit hours are earned at Radford University, the Radford GPA is used for admission. Transfer students who have earned less than 24 credit hours at Radford University are advised that the combined GPA for all course work is considered. Credit may be earned for select courses by examination (CLEP, ACT-PEP).
- 3. Students who entered Radford University as full-time freshmen with a declared pre-nursing major and have earned a cumulative GPA of 3.5 on a minimum of 24 semester hours of credit at Radford University and who have no honor code/conduct/alcohol or substance abuse violations will receive a priority admission status at the end of the second semester of the enrollment, contingent upon maintaining a 3.2 GPA, completing coursework according to the School of Nursing Guidelines below and having no infractions of the Radford University Honor Code.
- 4. Students will be required to complete a nursing entrance exam as part of the application process.

The application process for the School of Nursing is as follows:

Applicants must be admitted to Radford University prior to admission to the upper division major.

Submit application to the School of Nursing for fall admission by the deadline date of November 15 or for Spring admission by the deadline date of August 1.

Submit official transcripts of all college course work. Transcripts must show completion of the following prerequisite courses with a grade of "C" or above:

CHEM 102. General Chemistry

or

CHEM 120. Living Systems.

PSYH 230. Lifespan Developmental Psychology.

SOCY 110. Introduction to Sociology.

NUTR 214. Introduction to Nutrition.

STAT 200. Introduction to Statistics.

BIOL 322. Anatomy and Physiology.

BIOL 334. Microbiology.

NURS 321. Pathophysiology.

All students must be within 6 hours of completing Core Curriculum requirements when they begin the upper division nursing major. Students are advised that failure to complete all Core Curriculum courses prior to enrollment in the upper division major may result in the necessity of attending summer school or an additional academic year or semester(s).

Applicants who hold a Baccalaureate Degree from an accredited institution have met Core Curriculum requirements.

At the time of application deadline, the student may only have two (2) of the following courses left to complete: Chemistry, Microbiology, Anatomy and Physiology. Students transferring from the community college system please note that to receive transfer credit for Chemistry and/or Anatomy and Physiology at Radford University, you must have completed the two (2) course sequence of these courses (i.e., CHM 101 and 102; BIO 141 and 142).

Following acceptance to the upper division nursing major, the student will:

Submit a completed Radford University School of Nursing Health Record with up-to-date immunizations and TB skin test or chest X-ray during the term prior to enrollment in upper division courses (form sent after admission).

Provide evidence of current certification in Basic First Aid. This is a one-time only requirement.

Provide evidence of current certification in: Cardiopulmonary Resuscitation (CPR), American Heart Association Basic Life Support, Adult and Infant (BLS-C) preferred, American Red Cross accepted. The student is responsible for maintaining current certification throughout the upper division nursing program. If CPR certification has expired, no grace period will be allowed and the student may not attend clinical rotations.

Complete a Criminal Background Investigation prior to enrollment in upper division courses (form sent after admission). Students may be asked to complete additional criminal background investigations prior to certain clinical rotation.

Complete a Urine Drug Screen (completed during first week of upper division classes).

## **UPPER DIVISION NURSING SPECIAL REQUIREMENTS**

### **(Junior & Senior Years)**

The upper division nursing courses are offered at two locations: the Radford University campus which admits students for upper division in Fall Semester and the Roanoke site, located 50 miles northeast of Radford, which admits students for upper division in Spring Semester. Students indicate a preference on their applications.

Nursing majors incur financial costs in addition to those already required by the university. A physical examination with updated immunizations, a current certification in CPR, and a current certification in Basic First Aid are required prior to beginning upper-division classes. Each student is personally responsible for transportation to and from institutions and agencies utilized for clinical learning experiences.

Additional expenses for field trips and testing will be incurred and are the student's responsibility.

## UPPER DIVISION ACADEMIC POLICIES

Grading Scale:

A = 90-100

B = 82-89

C = 75-81

D = 70-74

F = 69

- A minimum grade of "C" is required in each nursing course.
- The theory grade measured through testing will stand alone as the course grade if less than 75 percent is achieved.
- In courses with theory, laboratory and/or graded clinical components, a passing grade of 75 percent must be earned in each component in order to pass the entire course. In addition, clinical evaluations must receive a PASS on PASS/FAIL system in order to pass the course.
- If the student makes below the grade of "C" in any (2) upper division nursing major courses, the student is withdrawn from the upper division nursing program and may not apply for readmission.
- A minimum grade point average of 2.5 in the nursing major is required for graduation.
- The credit hour ratio for classroom instruction is 1:1 (One hour of course credit for one hour of instruction.)
- The credit hour ratio for laboratory instruction is 1:2 (One hour of course credit for two hours of instruction.)
- The credit hour ratio for clinical instruction is 1:3 (One hour of course credit for three hours of instruction.)
- Students will be required to pass Medical Dosage Calculation Tests in selected clinical nursing courses throughout the curriculum.
- Nursing students must always be safe in practice; any compromise of safe practice can be a cause for immediate withdrawal from the program. This includes psychomotor and/or psychosocial areas.

- In addition to meeting the preceding requirements, a student must fulfill other policies outlined in the current School of Nursing Undergraduate Student Handbook.
- students who withdraw from or fail upper division nursing courses must request continuation in the School of Nursing. The ability to progress through the remainder of the program is not guaranteed and is on a space available basis.

## B.S.N. DEGREE NURSING MAJOR

All course requirements for nursing majors are outlined below.

### Core Curriculum Requirements 43-45 (See p. 71.)

Nursing majors are required to take the following prerequisite courses and are advised to take them as part of their Core Curriculum requirements: (Note that transfer students who transfer in the following: BIOL 322 (or 310 and 311) and BIOL 334 do not need to take BIOL 105, which is a prerequisite at RU for BIOL 322 and 334.)

NUTR 214. Introduction to Nutrition.	3
PSYC 121. Introductory Psychology.	3
SOCY 110. Introduction to Sociology.	3
STAT 200. Introduction to Statistics.	3
CHEM 120. Living Systems.	
or	
CHEM 101:102. General Chemistry.	4
Additional Courses	20
BIOL 105. Biology for Health Science.	4
BIOL 322. Anatomy and Physiology.	6
BIOL 334. Microbiology.	4
NURS 321. Pathophysiology (also counts as major requirement).	3
PSYC 230. Lifespan Developmental Psychology.	3

### Major Core Requirements 59

NURS 340. Health Assessment.	3
NURS 345. Professional and Therapeutic Foundations of Community-Based Nursing Practice.	7

NURS 352. Mental Health Nursing.	5
NURS 362. Nursing Research.	2
NURS 364. Nursing of the Adult I.	6
NURS 366. Nursing of the Childbearing Family.	5
NURS 368. Pharmacology I.	2
NURS 369. Pharmacology II.	2
NURS 443. Nursing of Children.	5
NURS 444. Gerontological Nursing.	5
NURS 448. Nursing of the Adult II.	5
NURS 451. Community Health Nursing.	5
NURS 453. Leadership in Nursing.	4
NURS 454. Clinical Nursing Practicum.	4
Electives	0

**Total Credits Needed for Degree 123**

## POST-LICENSURE TRACK

The post-licensure track of the undergraduate nursing program, or “RN-to-BSN,” provides flexible online learning opportunities for students who are graduates of community college or diploma schools and are licensed Registered Nurses (RN). Students complete 26 credits but are awarded 50 credits for prior learning and work experience through successful completion of the transition courses. Up to 60 transfer credits are awarded towards the Core Curriculum requirements for a B.S.N., thus completing a total of 122 semester hours at the baccalaureate level. Students are admitted each fall. The post-licensure curriculum is as follows:

NURS 330. Foundations for Professional Practice.	3
NURS 335. RN Transition I.	3
NURS 362. Nursing Research.	2
NURS 435. RN Transition II.	3
NURS 444. Gerontological Nursing.	5
NURS 449. Leadership in Professional Practice.	5
NURS 451. Community Health Nursing.	5

\*Number in parenthesis indicate credits awarded for prior learning and work experience.

An individual may be admitted to the post-licensure track based upon the following eligibility criteria if he/she:

- Holds an Associate Degree or Diploma in Nursing from a state-approved program;
- Holds an active Registered Nurse license with the Virginia Board of Nursing or a Nurse Licensure Compact state or hold an active Registered Nurse license in another state and be eligible for licensure in the Commonwealth of Virginia;
- Has practiced as an R.N. for a minimum of six (6) months and/or plans to practice concurrently while enrolled;
- Has completed all but nine (9) or less credit hours of the Core Curriculum required for the B.S.N.;
- Has completed all of the following nursing prerequisites or their transfer equivalencies with a grade of “C” or better: BIOL 322 Anatomy and Physiology, BIOL 334 Microbiology, NUTR 214 Introduction to Nutrition, PSYC 230 Lifespan Developmental Psychology, SOCY 110 Introduction to Sociology, and STAT 200 Introduction to Statistics (post-licensure students do not complete NURS 321 Pathophysiology as it is included in a transition course; post-licensure students select one natural science instead of the biology/chemistry combination);
- Has at least a 2.50 G.P.A. on all nursing courses attempted;
- Has at least a 2.50 G.P.A. on all cumulative college work attempted or on the last twenty-four (24) credit hours attempted;
- Has been admitted to Radford University.

## HONORS PROGRAM

The School of Nursing participates in the Radford University Honors Academy. For specific requirements contact the director of the Radford University Honors Academy.

## SCHOOL OF SOCIAL WORK

**Dr. Elise Fullmer, Director**

**Dr. ETTY VANDSBURGER, BSW Program  
Coordinator**

**Dr. Alice King Ingham, Associate Director**

[www.radford.edu/~sowk-web/](http://www.radford.edu/~sowk-web/)

The School of Social Work offers the Bachelor of Social Work (BSW) and the Masters Degree in Social Work (MSW). Both programs are accredited by the Council on Social Work Education (CSWE). The undergraduate program prepares students for beginning generalist social work practice while the graduate program offers a concentration in community-based family practice. For further information consult the *Radford University Graduate Catalog*.

The Interdisciplinary Minor in Health and Aging allows students to obtain specialized knowledge about adult development and aging as they live and work with the rapidly aging population of the 21st Century. (See p. 131.)

### UNDERGRADUATE PROGRAM IN SOCIAL WORK (BSW)

The Social Work Program is a comprehensive professional program that prepares students for beginning generalist social work practice. Students majoring in Social Work graduate with a Bachelor of Social Work degree.

### ADMISSION REQUIREMENTS

Applicants must meet academic and non-academic standards for successful admission, progression through and graduation from the BSW program. In order to assist students in developing the knowledge base and social work practice skills necessary to be successful generalist social work practitioners, the School of Social Work has developed technical standards and a process to become a social work major.

Copies of the Policies for Admission and Progression in the Social Work Major may be requested from the School of Social Work. The

BSW degree consists of four components: Core Curriculum requirements, pre-professional core courses (pre-Social Work majors), a portfolio, and a professional core (Social Work majors). A 610-hour internship in the senior year is also required.

### ADMISSIONS CRITERIA

Applicants must meet the following criteria for admission into the Social Work major from pre-Social Work:

- Have a minimum overall GPA of 2.5; have passed with a “C” or better in each of the following courses: SOWK 200, SOWK 210, BIOL 104, PSYC 121, SOCY 110, CORE 102 and SOCY 121 or PEAC 200;
- Have received a grade of “P” in SOWK 289 or if applying while concurrently in that course, have received a mid-term evaluation of “P”. Students who apply while in SOWK 289 will receive a provisional acceptance if all other academic requirements are met until they complete SOWK 289 with a grade of “P”;
- A completed application to major in Social Work (available from the School of Social Work Admissions Coordinator, 206 Waldron Hall), with accompanying prerequisite documentation. This documentation includes the student’s completed portfolio. This must be submitted to the School of Social Work by the application deadline. An educational portfolio is a picture of what the student has learned and accomplished throughout his/her academic career. It is compiled of written assignments, tests and other creative works that are relative to the field of social work. The goal is to make the student actively responsible for and aware of his/her learning process. The portfolio provides a structure for the student to monitor and assess their growth and development, personally, professionally and academically. It should make the student more aware of him/her self and his/her environment;
- As a part of the admissions process, interviews are conducted by the School of Social Work Undergraduate Committee.

## SOCIAL WORK MAJOR

### CORE CURRICULUM REQUIREMENTS

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#### University Core A:

CORE 101	3
CORE 102	3
CORE 201	3
CORE 202	3

#### University Core B:

MATH 111 or higher	3
BIOL 104. Human Biology.	4
ENGL 200. Literature.	3
PSYC 121.	3
Visual/performing arts	3

#### College Core A:

HIST 111 or 112	3
SOCY 121. Cultural Anthropology. or PEAC 200. Peace Studies.	3

#### College Core B:

BIOL 103. Environmental Biology. or BIOL 105. Biology for Health Science.	4
PHIL 111, 112, or 114 (PHIL 112 is recommended).	3
SOCY 110. Introduction to Sociology.	3

Special Note: Pre-professional courses and professional courses must be completed with a 2.7 or better for graduation.

#### Additional required Courses

18

SOCY 250. Social Inequality. or SOCY 331. Race and Ethnic Relations. or PSYC 250. Psychology of Diversity. PSYC 439. Abnormal Psychology. PSYC 361. Psychology of Personality. or PSYC 343. Social Psychology.	3
STAT 200.	3
ECON 101, 105, 106 or POSC 110, 120	3

(POSC 120 is recommended)  
NUTR 214, HLTH 111/200, NURS 111,  
or RCPT 200. 3

**Pre-professional Courses 10**

**Professional Courses 39**

**Electives 9**

**Total Credits Needed for Degree 120**

### ROANOKE CAMPUS (RHEC)

Radford University (RU) School of Social Work and the Human Services (HS) program at Virginia Western Community College (VWCC) have an articulation agreement that allows graduates of the HS program, who choose to do so, to apply to the Radford University BSW program as Social Work (VWSW) majors following graduation from the Human Services Program at Virginia Western Community College. The agreement considers the HS major who becomes a VWSW major to have virtually been a PSWK major while enrolled in the HS program. Students who have earned the Associate in Applied Science degree in HS from VWCC and apply to become RU (VWSW) major have met a different set of Core Curriculum requirements for Radford University and the School of Social Work.

Students begin this process by electing the "Transfer Curriculum" of the HS program. They begin their course work by taking MEN 100 Introduction to Mental Health, MEN 101 Skills Training I and MEN 102 Skills Training II. They then enroll in an internship, MEN 290.

For complete details, see articulation agreement between Radford University/Virginia Western Community College pertaining to Human Services majors and the requirements for that major.

The policies and procedures for HS/VWSW majors at this step are those of the Human Services Program. The HS student, in the transfer module, is only "virtually" a Radford University student as the intent is to transfer but Radford

University nor the School of Social Work has accepted them.

To be considered for admission to the Radford University (RU) Bachelor of Social Work (B.S.W.) program from Virginia Western Community College, students must

- Have completed the Associate in Applied Science (AAS) degree in HS from Virginia Western Community College. Once all of the courses necessary as
- Core Curriculum requirements for the AAS degree at Virginia Western Community College have been completed, students will be deemed to have fulfilled their Radford University Core Curriculum requirements. Students enrolled simultaneously at both Virginia Western Community College and Radford University may receive financial aid through only one of the institutions.
- Have an overall GPA of 2.5 in Core Curriculum courses and passed the following courses, or course equivalents, with a C or better: SOWK 200, SOWK 210, BIOL 104, and BIOL 103/105, PSYC 121, SOCY 110, CORE 101 and CORE 102, ANTH 121, STAT 200, and all psych and social science courses.
- Have successfully completed, with at least a “C,” or be currently enrolled in, SOWK 309.
- Have presented their qualifications, portfolio, and application to the BSW Curriculum Committee in a personal interview. The committee will approve or deny admission to the BSW major at that time.

The following is a description of Radford University’s (RU) requirements for the B.S.W. degree program in Social Work for a student who has earned an Associate of Applied Science (VWCC) in HS.

## **GENERAL PROVISIONS**

- Application for admission to the RU Social Work degree program offered on the VWCC campus in Roanoke is open to:
- Any student who has completed the AAS degree in HS or who will have completed the AAS degree in HS at least 30 days prior to the delivery of RU upper division courses to the VWCC campus.

- STUDENTS MUST HAVE A CUMULATIVE GRADE POINT AVERAGE OF 2.5 OR HIGHER TO BE ADMITTED TO THE PROFESSIONAL COURSES IN THE MAJOR, IN ADDITION STUDENTS MUST MEET OTHER ADMISSION REQUIREMENTS.
- Students who have completed at least 38 hours of courses as outlined in the Core Curriculum requirements for the BSW degree.
- Students who attended another accredited institution of higher learning without earning an associate’s degree must complete the regular Core Curriculum requirements for RU and are not eligible for application to the BSW program until those credits are completed.
- All courses taken at accredited institutions other than RU will transfer to this program only if a grade of “C” or better is received.
- A minimum of 45 semester hours of the total program must be taken at RU and at least 30 of the last 39 hours for the degree must be taken at RU; at least 50 percent of the Social Work major must be RU courses (this requirement is satisfied with this degree program). The total program consists of a minimum of 120 semester hours.
- The program requirements may be modified to conform to any changes in Radford University or the School of Social Work degree requirements. Any such revisions will be communicated to Virginia Western Community College by July 1 preceding the academic year in which the new requirement would take effect.

NOTE: To graduate with Latin honors from RU, student must complete 60 semester hours of credit at RU with at least a 3.5 overall GPA. If a student graduates with at least a 3.5 GPA, but less than 60 semester hours, the designation of “with distinction” will be on the student’s diploma and transcript.

## PROGRAM OF STUDY (RHEC SITE)

The program consists of three areas:

- Core Curriculum requirements: 38 semester hours
- Social Work Major requirements: 62 semester hours
- Additional courses: 20 semester hours

In the following list of requirements, the term transfer equivalent refers to any course, taken at an institution other than Radford University, which is accepted as equivalent to the required course (e.g. CORE 101) or area (e.g. Speech). The Radford University Transfer Guide lists transfer equivalents for all Virginia Community College courses. The Registrar determines the transfer eligibility of other courses at Radford University.

### I. Core Curriculum Requirements (38 semester hours minimum):

Transfer courses for Core Curriculum (semester hours)

Humanities (12 semester Hours):	
Transfer equivalent for CORE 101	3
Transfer equivalent for CORE 102	3
Transfer equivalent for COMMUNICATION3	3
Transfer equivalent for HUMANITIES	3
Laboratory Science (8 semester hours):	
Transfer equivalent for BIOLOGY 104	4
Transfer equivalent for BIOLOGY 105	4
Mathematics (6 semester hours):	
Transfer equivalent for STAT	3
Transfer equivalent for MATH	3
Social Science (9 semester hours):	
Transfer equivalent for PSYC 121	3
Transfer equivalent for PSYC 317	3
Transfer equivalent for SOCIOLOGY 110	3
Health (3 semester hours):	
Transfer equivalent for HEALTH	3

### II. Social Work Major Requirements (62 semester hours)

<b>Required base courses</b>	<b>6</b>
SOCY 331	3
Transfer equivalent for PSYC 439	3

### Pre-professional courses (11 semester hours):

Transfer equivalent for SOWK 200	3
Transfer equivalent for SOWK 210	3
Transfer equivalent for SOWK 289	5

### Professional courses **45**

SOWK 300	3
SOWK 301	3
SOWK 309	3
SOWK 317	3
SOWK 320	3
SOWK 321	3
SOWK 350	3
SOWK 422	3
SOWK 423	3
SOWK 424	3
SOWK 489	12
SOWK 490	3

### III. Additional courses/electives VWCC courses:

PSY 220 (3) - ELECTIVE	
MEN 221 (3) - ELECTIVE	
MEN 222 (3) – ELECTIVE	
RU courses (as needed)	

The following courses are recommended as program electives:

SOWK 421	3
SOWK 425	3
SOWK 480	3

### LIFE EXPERIENCE/PREVIOUS WORK EXPERIENCE

The School of Social Work follows the Council on Social Work Education's guideline that no academic credit be given for life experience or previous work experience.

### Interdisciplinary Minor in Health in Aging (18 semester hours)

Students who desire specialized knowledge about the elderly may obtain an interdisciplinary minor in Health in Aging. This minor, which is coordinated and directed by the Department of Social Work, consists of a minimum of 18 semester hours:

<b>Required Courses</b>	<b>6</b>	SOCY 341. Sociology of Health and Medicine.	3
NUTR 214. Introduction to Nutrition.	3		
PSYC 429. Maturity and Aging.	3	SOCY 482. Practicing Ethnographic Methods.	4
<b>Elective Courses (minimum)</b>	<b>12</b>	SOWK 200. Introduction to Professional Practice.	3
At least twelve semester hours chosen from:		SOWK 425. Gerontology: Social Welfare Aspects.	3
HLTH 450. Current Health Problems: Gerontology.	3		
NURS 346. Nursing in the Aging Process.	3		
PSYC 439. Abnormal Psychology.	3		

### TWO YEAR FULL-TIME EVENING OPTION

<b>Fall year 1</b>	<b>Spring year 1</b>	<b>Summer year 1</b>
SOWK 300 (3)	SOCY 331 (3)	SOWK 321 (3)
SOWK 301 (3)	SOWK 320 (3)	SOWK 309 (3)
SOWK 422 (3)		
SOWK 317( (3)	SOWK 423 (3)	
<i>12 Credits</i>	<i>12 Credits</i>	<i>9 Credits</i>
<b>Fall year 2</b>	<b>Spring year 2</b>	
SOWK 350 (3)	SOWK 490 (3)	
SOWK 424 (3)	SOWK 489 (12)	Elective
<i>12 Credits</i>	<i>15 Credits</i>	

### PART-TIME THREE YEAR EVENING OPTION

<b>Fall year 1</b>	<b>Spring year 1</b>	<b>Summer year 1</b>
SOWK 300 (3)	SOCY 331 (3)	SOWK 309 (3)
SOWK 320 (3)	Elective (3)	
SOWK 317 (3)		
<i>9 Credits</i>	<i>6 Credits</i>	<i>6 Credits</i>
<b>Fall year 2</b>	<b>Spring year 2</b>	<b>Summer year 2</b>
SOWK 350 (3)	SOWK 422 (3)	SOWK 321 (3)
SOWK 301 (3)	SOWK 423 (3)	Elective (3)
<i>6 Credits</i>	<i>9 Credits</i>	<i>3 Credits</i>
<b>Fall year 3</b>	<b>Spring year 3</b>	
Elective (3)	SOWK 489 (12)	
SOWK 424 (3)	SOWK 490 (3)	
<i>6 Credits</i>	<i>15 Credits</i>	

# COLLEGE OF HUMANITIES AND BEHAVIORAL SCIENCES

**Dr. Katherine Hawkins**

**Dean**

**132 Russell, (540) 831-5149**

**Dr. Tod W. Burke**

**Associate Dean**

**133 Russell, (540) 831-5149**

**Deborah L. Kitts**

**Advising Coordinator**

**127 Russell, (540) 831-6366**

The College of Humanities and Behavioral Sciences offers a variety of majors and minors designed to prepare students both as thinking and involved citizens and as highly trained professionals. The curriculum emphasizes a strong liberal arts foundation through its focus on critical thinking, both oral and written communication knowledge and skills, philosophical analysis, an understanding of religious expression, literature, foreign languages and literatures, social problems and issues, the characteristics of individuals and groups, historical understanding and the nature of political life. The more professionally oriented programs prepare professionals as consumers and producers of media, effective and ethical public relations practitioners, counselors and criminal justice professionals. The curriculum is innovative and continually developing to meet new needs. It emphasizes an intelligent blend of traditional classroom learning with new educational technologies, group and team learning, and student research activities.

Faculty members are dedicated teachers and scholars. Many have been recognized at the highest levels for their dedicated and highly successful work with students. Members of the College have won the prestigious Virginia Outstanding Faculty Award, the Radford University Foundation Award for Excellence in Teaching, the Donald N. Dedmon Distinguished Teaching Professor Award, the Radford University

Foundation Distinguished Creative Scholar Award, and the Radford University Distinguished Service Award. Many faculty are also highly successful researchers, writers, poets and authors.

Students in the college are themselves highly successful with many continuing on for graduate degrees at highly rated and nationally recognized programs. Students regularly present their research at a variety of state, regional, national, and international conferences in conjunction with faculty members, including the National Conference on Undergraduate Research, The Big South Undergraduate Research Symposium, Virginia Association of Teachers of English, the Phi Alpha Theta Conference, Southeastern Psychological Association, The Industrial/Organizational Psychology Graduate Student Conference, the American Mental Health Counseling Association, the Southeastern Women's Studies Association, the Virginia Psychological Association, the Mid-Atlantic Regional Conference of Undergraduate Scholarship, and the Society for Personality and Social Psychology, the Southern Sociological Society, and many others. They are also recipients of a variety of honors and awards. Graduates from the college move on to responsible positions in a variety of fields.

Undergraduates in the college may earn a Bachelor of Arts or a Bachelor of Science degree. The college offers bachelor's degrees in 11 undergraduate majors, the master's degree in four areas, and the Educational Specialist degree in School Psychology. Many of the majors offer several concentrations from which the student may choose. (These degrees are listed beginning on p. 138.)

This academic year marks the second year of Radford University's first doctoral program. The Doctor of Psychology (Psy.D.) in counseling psychology is focused on rural mental health. The Psy.D. degree in counseling psychology is designed for persons interested in careers as psychologists in mental health

settings and institutions where clinical supervision and the direct application of counseling, therapy, and psychological assessment are required. The program follows a practitioner-scholar model with an emphasis on clinical training and the application of research to practice.

The School of Communication, which resides within the College of Humanities and Behavioral Sciences, began its first year of operation with the start of the 2008-09 academic year. This academic unit emphasizes the role of communication as central to the health and well-being of our nation, its media, institutions, organizations, groups, cultures, and individuals.

The College of Humanities and Behavioral Sciences includes eight academic departments and one school:

Criminal Justice	p. 138
English	p. 142
Foreign Languages and Literatures	p. 144
History	p. 147
Philosophy and Religious Studies	p. 152
Political Science	p. 154
Psychology	p. 156
Sociology	p. 157
The School of Communication	p. 161

In addition to the programs listed above, there are nine specialized areas within the college:

The Interdisciplinary Minor in Cinematic Arts, jointly supported by the College of Humanities and Behavioral Sciences and the College of Visual and Performing Arts, provides students with a solid foundation in the historical, critical, and aesthetic aspects found in the area of cinema. (p. 225)

The Interdisciplinary Studies major is offered to students who find that their educational goals cannot be met through a specific degree program. This major does not provide teaching licensure, however, provides breadth and flexibility through Core Curriculum, an interdisciplinary core of courses, and depth in two different academic concentrations. (p. 149)

Students who desire to complement their foreign language skills with a cultural focus may obtain an Intercultural Studies minor. (p. 146)

The International Studies Program, which offers a minor in international studies, prepares students to participate in an increasingly interdependent world. The program emphasizes understanding other countries through studies of their arts, language, history, and geography as well as their political and economic systems. (p. 135)

The Peace Studies Program offers an interdisciplinary minor in the study of world conflicts and explores strategies for creating a more peaceful world. (p. 137)

The ROTC Program, staffed by Army commissioned and noncommissioned officers, offers students an opportunity for scholarships and a career in the regular Army, the Army Reserve, or the National Guard. This program offers a minor in Leadership and Military Science which is available to all university students. (p. 150)

The Women's Studies Minor allows students to explore interdisciplinary perspectives on women's experiences and to use gender as a way of analyzing a variety of social and interpersonal issues. (p. 138)

Of approximately 120 faculty members in the College of Humanities and Behavioral Sciences, more than 80 percent hold the doctoral degree.

Both undergraduate and graduate programs within the college provide close student-faculty relationships designed to meet the needs of individual students.

## ADVISING

### Advising Center 127 Russell, (540) 831-6366

Each student in the College of Humanities and Behavioral Sciences is assigned an advisor. Students who are freshmen and sophomore majors in Criminal Justice, Psychology and the School of Communication (Communication and Media Studies) are assigned an Academic Advisor in the Advising Center and meet with that person for registration advising during the Fall and Spring semesters. All other students are assigned a faculty advisor within their respective departments.

In addition, the College Advising Center (Russell Hall 127) provides professional

assistance for all students in the college and across the university. We provide support and guidance to those who have questions or concerns about such things as curricula, academic procedures, grade point calculations, referrals to other academic and student support services, or graduation requirements. It is the student's responsibility to verify that all graduation requirements are met as specified by his or her program and we are here to help support that process through a dynamic relationship.

## **DEGREE REQUIREMENTS**

All students majoring in fields of study in the College of Humanities and Behavioral Sciences must meet university Core Curriculum requirements. (p. 71)

Requirements of individual academic majors are listed under department headings.

## **INTERDISCIPLINARY MINORS**

Radford University offers four interdisciplinary minors that are administered outside the context of a single academic department. These minors have a number of features in common: all afford students a wonderful opportunity to explore in depth special areas of interest that do not fit neatly within disciplinary boundaries; all are excellent complements to any academic major; all require students to take courses in a variety of subjects; all are administered by a director or chairperson, in conjunction with a advisory group of faculty from a variety of disciplines; and all require students to receive special advising services so that they meet graduation requirements. Specific and detailed information about the three interdisciplinary minors (International Studies, Peace Studies, and Women's Studies) is provided below. For more information, contact the director or the chairperson noted.

## **INTERNATIONAL STUDIES**

**James H. Radford, Director**  
**248 Russell Hall**  
**(540) 831-6458**  
**[www.radford.edu/~isminor](http://www.radford.edu/~isminor)**

### **Committee on International Studies**

The Committee on International Studies, although centered in the College of Humanities and Behavioral Sciences, is an interdisciplinary committee with membership drawn from all of the university's colleges. The committee collaborates closely with the Office of International Education in encouraging Radford University students to see study abroad as an integral and essential component of their undergraduate education. The committee also works closely with individual departments and faculty advisors on campus to design programs of study that are both vital and relevant to their majors.

### **MINOR IN INTERNATIONAL STUDIES**

**(18 semester hours)**

The Minor in International Studies is an interdisciplinary minor meant to complement any major on campus either by adding an international component to that major or by strengthening an existing international emphasis. The minor provides a broad overview of international issues while also permitting some degree of specialization on a particular issue or region of the world. These objectives are accomplished not only through a flexible selection of courses outside the major, but also through direct engagement that might include study abroad, internships, home-stays, the study of foreign language, and the development of a final senior project that allows the student to integrate learning from both major and minor into a project with an international focus.

The International Studies Minor is administered and supervised by the Committee on International Studies (CIS), an interdisciplinary faculty committee centered in the College of Humanities and Behavioral Sciences. Programs of study and senior projects must be approved by the committee.

Students entering the program may be advised by any member of the Committee on International Studies or by their major advisor in collaboration with the program's director. The Program of study should have either a topical or regional focus and courses in the Core Requirements should be selected from at least two disciplines outside the student's major. Study abroad is an important component of this minor and students are strongly encouraged to take advantage of the many opportunities for overseas study offered by Radford University or other institutions.

The content of the minor will vary with each student. The following suggest some of the possibilities, but are not fully inclusive: The Role of Dance in Culture, Economics of Developing Countries, Japanese (or European) Studies, Educational Systems in Africa, the Politics of Fundamentalist Islam.

### Requirements

Requirements for the Minor in International Studies total 18 semester hours, including the following four areas:

<b>Introductory Course</b>	<b>3</b>
Choose one of the following:	
INST 101. Introduction to International Studies.	3
SOCY 121. Understanding Cultures.	3
HIST 101. World History to 1500.	3
HIST 102. World History since 1500.	3
Experience in a Target Culture	No Credit

This introductory requirement may be met in any number of ways, including study abroad, internships, homestays, or service learning projects. While the study abroad option is not required, it is strongly encouraged. Students receive no specific credit for the study abroad experience, but courses taken overseas and transferred to Radford University may be used to meet the requirements of a student's General Degree program, those in the student's major, or the International Studies Minor, if appropriate.

### Required Core 12

Hours should be chosen from at least two disciplines outside the student's major and reflect

in some fashion the topical or regional focus of the student's minor in International Studies.

### Senior Project 3

INST 488. International Studies:  
Senior Project. 3

Ideally, this course is taken during the student's last semester and is a culmination of the international knowledge and experiences gained. The project may be a research paper, a work of art or multi-media presentation, a film, series of articles, etc. A senior project proposal must be submitted to the Committee on International Studies for approval in the semester prior to the student's enrollment. The project is supervised and graded by a designated faculty member, preferably in the student's major department. Students must earn a grade of "A" or "B" in the course to have met the requirements for the minor. Students are encouraged to give a public presentation of their work in some forum.

### Recommended

Contact the Director of International Studies for recommended elective coursework in conjunction with the minor in International Studies.

### Foreign Language

The study of foreign language is important in the understanding of other cultures, and as such, students are encouraged to complement their minor with foreign language study, particularly as part of a study abroad experience.

## SAMPLE PROGRAMS OF STUDY IN INTERNATIONAL STUDIES

Below are two actual examples of completed Programs of Study for recent Radford University graduates. Each program reflects the different majors, experiences, and interests of the individual student.

### Focus: Japanese Studies (IDSL Major)

Intro.: HIST 102. World History since 1500. 3  
Target Culture: One year in student exchange program in Japan

Core: Language study in Japanese	8
Transferred to RU: Japanese culture	3
Transferred to RU: Economies of East Asia	3
Senior Project: INST 488. Comparative Research on Systems of Elementary Education in Japan and the United States.	3

**Focus: Islamic North Africa (SOCY major)**

Intro.: SOCY 121. Understanding Cultures.	3
Target Culture: Summer experience with archaeological dig in Tunisia.	
Core: HIST 319. The Middle East.	3
HIST 308 Ancient Greece and Rome.	3
HIST 498. Independent Study: Readings in Islamic Culture.	3
ART 498. Independent Study: Islamic Art and Architecture.	3
Senior Project: INST 488. Comparative Research on the Changing Roles of Women in Modern Iran and Saudi Arabia.	3

## PEACE STUDIES

**Glen T. Martin, Chairperson**  
**706 Fairfax Street E105**  
**(540) 831-5897**  
<https://php.radford.edu/~peace>

### UNDERGRADUATE PROGRAM

The Peace Studies (PEAC) minor provides students with an opportunity to complement a wide range of major courses of study with systematic examination of the causes of world conflict and the possible means of both managing that conflict and creating a more peaceful world. The minor is interdisciplinary in nature and allows the student to design a program of study that focuses on particular issues relating to world peace and security. Students who wish to enroll should consult a PEAC faculty member.

## PEACE STUDIES MINOR

Students minoring in Peace Studies design their programs of study in consultation with a rotating committee of PEAC advisors. The program is administered by the PEAC Committee which must approve all programs of study.

A student's course of study must have a clearly stated focus and the courses selected must be justified in terms of that focus. Examples: procedures for international conflict management; alternative views on the causes of war and conditions of peace; the role of science and technology in war and peace; the history of peace movements; military history; the variety of potential world order systems; regional conflicts and their management; international law and organization; nuclear weapons and world security; international conflict and human rights; causes and resolutions of human conflict; relationships between inner and outer peace; international environmental policy; economic causes for conflict; international economic development; etc.

### REQUIRED AND ELECTIVE COURSES

The minor consists of 18 semester hours. Many courses within existing university departmental curricula are potentially relevant to the minor, and it is the responsibility of the student to design a program (in consultation with PEAC faculty) based on his or her own interests and field of specialization prior to submission of the program to the PEAC Committee for approval. Six hours of the minor must be devoted to the two required courses: Introduction to Peace Studies (PEAC 200) and the interdisciplinary Senior Seminar (PEAC 487) or, in years the seminar is not offered, a senior thesis appropriate to the student's area of specialization (PEAC 489). The thesis will be supervised by an interdisciplinary PEAC committee which may be chaired in the student's major department. Courses taken for other majors or minors may not be counted with this minor.

## WOMEN'S STUDIES

**Moira P. Baker, Director**

**138 Russell Hall**

**(540) 831-5352**

**[www.radford.edu/~wstudies/](http://www.radford.edu/~wstudies/)**

### UNDERGRADUATE PROGRAM

The Minor in Women's Studies offers students a range of courses forming a program with an interdisciplinary emphasis on women, the contributions they have made to society, and the effects of gender inequality. The program provides opportunities to become acquainted with the scholarship that has developed during the last 25 years focusing on both the specifics of women's lives and gender as a category of analysis. Students will also have the opportunity to carry out an internship in a setting or agency that addresses issues related to women and gender.

### MINOR IN WOMEN'S STUDIES

The Women's Studies Minor is administered by the Director of Women's Studies in concert with the Women's Studies Committee. Programs of study and internship projects must be approved by the Director. The Minor in Women's Studies requires 15 hours of coursework.

#### **Requirements 3**

WMST 101. Women in the World. 3

#### **Electives 12**

Any four of the following courses:

COMS 457. Diversity in Communication. 3

CRJU 365. Diversity Issues in the Criminal Justice System. 3

ENGL 453. The Female Literary Tradition 3

HIST 306. History of Women. (May be taken twice when topics differ) 3

HLTH 325. Human Sexuality. 3

HLTH 453. Diversity of Health in U.S. 3

PSYC 250. Psychology of Diversity. 3

PSYC 391. Psychology of Women. 3

PSYC 393. Psychology of Human Sexuality. 3

RELN 305. Religion and Women. 3

SOCY 250. Social Inequality. 3

SOCY 326. Men and Women in Society. 3

SOCY 333. Social and Cultural Diversity. 3

SOCY 389. Sociology of the Family. 3

SOCY 390. Sociology of Sport. 3

SOCY 441. Global Inequalities. 3

WMST 290. Topics in Women's Studies. 3

WMST 490. Seminar in Women's Studies. 3

WMST 499. Internship in Women's Studies. 3

In some semesters, courses including, but not limited to, ENGL 314, ENGL 470, NUTR 400, HLTH 450, MGNT 471, MKTG 471, MUSC 491, NURS 450, SOCY 495 and SOWK 480, may be designed to focus on the study of women or gender issues. When such courses are available with this focus, they will be eligible for inclusion in the minor. In addition, special topics 490 courses and independent studies 498 courses focusing on women can, with approval, be used to fulfill electives, though not more than six of the 12 elective hours may be 290, 490 and/or 498 courses. In addition, any course with a significant focus on women and gender may be approved by the Director for a student's program of study in the Minor.

## PROGRAMS OF STUDY

### CRIMINAL JUSTICE

**Mary Welek Atwell\*, Chairperson**

**[www.radford.edu/~crju-web/](http://www.radford.edu/~crju-web/)**

### UNDERGRADUATE PROGRAM

Criminal justice involves the study of crime from a systems perspective. Far from being a narrowly-defined law enforcement or correctional program, criminal justice is an interdisciplinary and professionally-oriented academic discipline concentrating on many aspects of crime and the concepts that impact on our system of justice. Accordingly, to prepare students

for the various positions within criminal justice as well as graduate school, the program seeks to develop a broad foundation of knowledge pertaining to crime and its ancillary issues.

The curriculum for criminal justice majors is interdisciplinary in nature and includes courses that will provide students with the research and analytical skills necessary for understanding the nature of justice and the issues that affect its implementation. Majors may pursue either a Bachelor of Arts or Bachelor of Science degree.

The program also offers a minor that allows for the interdisciplinary study of the conjunction of a student's primary discipline with the civil and criminal justice system. The program examines the general field of forensic science and the role of the forensic scientist in the judicial system. While emphasizing mastery of a student's primary field of study, the Interdisciplinary Minor in Forensic Studies allows the student the opportunity to explore allied fields as well as the operation of the judicial system. The minor complements majors in the liberal arts disciplines as well as professional fields such as Business, Nursing, and Social Work.

For students desiring to teach criminal justice at the secondary level, the teacher licensure option is offered in the Bachelor of Science program.

Criminal Justice courses offered by the community colleges may substitute for various courses in the criminal justice major at Radford. A maximum of 21 hours transfer credit may be applied toward the major. A minimum of 21 hours of course work with CRJU prefixes must be taken at Radford University.

## **B.A. OR B.S. DEGREE**

### **CRIMINAL JUSTICE MAJOR**

All requirements for the criminal justice major are outlined below. Among the requirements are Core Requirements, Other Major Courses, and Related Requirements. In order to graduate with a major in Criminal Justice, students must complete all CRJU prefix courses with a grade of "C" or better.

## **Core Curriculum Requirements 43-45 (See p. 71.)**

In College Core B, all majors in programs in the College of Humanities and Behavioral Sciences are required to pass a second course in Social and Behavioral Sciences; i.e., CHBS majors cannot fulfill College Core B requirements with a Health and Wellness course.

Majors are required to take the following four courses and are advised to take them as part of their Core Curriculum requirements:

POSC 120. Introduction to American Government.	3
PSYC 121. General Psychology.	3
SOCY 110. Introduction to Sociology.	3
STAT 200. Introduction to Statistics.	3

## **Core Major Requirements 24**

CRJU 100. Introduction to Criminal Justice.	3
CRJU 233. Courts and Criminal Process.	3
CRJU 235. Police and Society.	3
CRJU 238. Corrections.	3
CRJU 365. Diversity Issues in the Criminal Justice System.	3
CRJU 370. Crime and Criminal Behavior.	3
CRJU 385. Research Methods in Criminal Justice.	3
CRJU 495. Critical Perspectives in Criminal Justice.	3

## **Other Major Courses: 12**

Four courses for a total of twelve hours of classes with a CRJU prefix are required. CRJU 100, core requirements, independent studies, and internship hours do not satisfy this requirement. More than one CRJU 490 Seminar will count towards the twelve hours provided that the topic of the seminar varies.

## **Related Requirements: 6**

Two courses will be chosen from:	
PSYC 250. Psychology of Diversity.	3
PSYC 343. Social Psychology.	3
PSYC 439. Abnormal Psychology.	3
SOCY 210. Social Problems.	3
SOCY 250. Social Inequality.	3

SOCY 443. Deviance.	3	POSC 439. Constitutional Law-Civil Liberties.	3
SOCY 444. Juvenile Delinquency.	3	PSYC 218. Adolescent Psychology.	3
<b>B.A./B.S. Requirements</b>	<b>6-12</b>	PSYC 405. Forensic Psychology.*	3
<b>(See below)</b>		SOCY 333. Social and Cultural Diversity.	3
		SOCY 365. Society and the Individual.	3

## B.A./B.S. REQUIREMENTS

Students should consult with their academic advisors as to which degree option best suits their needs.

### B.A. Requirements 6-12

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 77 of this catalog.

### B.S. Requirements 6-12

The Bachelor of Science requirements for criminal justice majors consists of six (6) semester hours chosen from the following list of courses. See university policy regarding the use of credit to fulfill multiple requirements. Courses with asterisks (\*) can be used for only one requirement, i.e. B.S., major, minor, option, or Core Curriculum.

BLAW 203. Legal Environment of Business.	3
COMS 114. Public Speaking.*	3
COMS 314. Organizational Communication.	3
COMS 332. Argumentation and Advocacy.	3
COMS 333. Persuasion.	3
ECON 391. Law and Economics.	3
GEOS 250. Introduction to GIS.	3
HLTH 451. Drug Use and Drug Abuse Education.*	3
ITEC 100. Introduction to Information Technology.*	3
COMS 400. Media Law and Ethics.	3
PHIL 112. Introduction: Ethics and Society.	3
PHIL 113. Introduction: Reasoning and Argument.	3
PHIL 310. Professional Ethics.	3
PHIL 375. Philosophy of Law.	3
PHIL 390. Ethical Theory.	3
POSC 300. Public Administration.	3
POSC 438. Constitutional Law-Government Powers.	3

## GRADUATION REQUIREMENTS

In order to graduate with a major in criminal justice, a letter grade of “C” or higher must be earned in all “CRJU” prefix courses. See p. 51 for course repeat policy.

### CRIMINAL JUSTICE MINOR (18 SEMESTER HOURS)

In order to complete a minor in criminal justice, students must do the following:

1. Complete a total of 18 hours in criminal justice (CRJU prefix) coursework;
2. 12-18 credit hours must be taken from the list of required courses for the major;
3. 0-6 credit hours may be taken from other courses with CRJU prefix;
4. Letter grade of “C” or higher must be earned in all “CRJU” prefix courses.

### INTERDISCIPLINARY MINOR IN FORENSIC STUDIES

A minimum of 18 credit hours is required for the completion of the Interdisciplinary Minor in Forensic Studies. The program is administered by the interdisciplinary forensic studies committee (to be named by the dean). Students who wish to enroll in the minor must consult with one of the members of this committee for advising. It is the responsibility of the student to design his/her program of study from among the available options, subject to approval of the committee. Regularly offered courses, special topic courses, seminars and honors courses may be selected.

<b>Required Courses</b>	<b>9</b>
CRJU 320. Criminal Investigative Theory.	3
CRJU 341. Introduction to Forensic Science.	3
CRJU 481. Forensic Evidence.	3

**Required Electives** **9**

Choose 9 hours from the following:

ANSC 210/FOSC 210: Introduction to Forensic Anthropology.	3
ANSC 211/FOSC 211: Forensic Archaeology.	3
ANSC 320. Human Osteology.	4
ANSC 420/FOSC 420. Advanced Forensic Anthropology.	4
BIOL 231: Genetics Development and Evolution.	4
BIOL 310:311. Human Structure and Function.	4:4
BIOL 322. Human Anatomy and Physiology.	6
BIOL 383: Molecular Forensic Biology.	4
BIOL 450. Molecular Biology.	4
CHEM 301:302. Organic Chemistry.	4:4
CHEM 465: Forensic Chemistry.	4
CHEM 471:472. Biochemistry.	4:3
CRJU 360. Criminal Law and Evidence.	3
CRJU 490. Seminar. (must be an appropriate forensic topic).	3
HLTH 451. Drug Use and Drug Abuse Education.	3
ITEC 245: Introduction to Computer Security.	3
PSYC 405. Forensic Psychology.	3
PSYC 439. Abnormal Psychology.	3"

In planning elective forensic studies coursework, students must be aware of three requirements:

1. Students must select their elective courses so that upon completion of the minor they have taken coursework in at least two disciplines.
2. Criminal Justice majors may not take the asterisked (\*) courses for credit towards the minor.

3. Students must earn a letter grade of "C" or higher in all courses for credit towards the Forensic Studies minor.

**INTERNSHIP PROGRAM**

The criminal justice major offers an internship program (CRJU 484) that may be taken during the junior or senior year. Requirements for the course are: completion of at least 21 hours in the criminal justice major; a 2.5 grade point average overall and in the major; and departmental approval. The internship program offers 6 to 15 hours credit.

**HONORS PROGRAM**

For a general description of the Honors Program at Radford, see p. 80. For specific requirements of the departmental honors program, contact the department Honors Program Liaison.

**ACCELERATED MASTER'S PROGRAM**

The objective of an accelerated bachelor's/master's degree program in Criminal Justice is to provide a means whereby exceptional undergraduate students at Radford University may complete requirements for a baccalaureate and master's degrees more efficiently in five rather than six years.

Students accepted for the bachelor's/master's accelerated program may take up to 12 hours of graduate credit, which may count for both the bachelor's and master's degrees. To be eligible for participation in an accelerated degree program, students must have completed at least 60 undergraduate credits and a maximum of 96 undergraduate credits. Transfer students must have completed a minimum of two semesters (at least 24 credits) at Radford University. A student must have a cumulative GPA of at least 3.0 to be eligible.

A prospective student who meets the eligibility requirements above should arrange a meeting with the graduate program coordinator to review the requirements for the accelerated bachelor's/master's degree program. Students in the accelerated program must submit the standard application for admission to the Graduate College, including an application form, application fee, transcripts, letters of recommendation, and a short essay addressing why he or she wishes to undertake graduate study in Criminal Justice and his or her plans for a career in Criminal Justice. In addition, the student must submit the accelerated degree application form. Upon review of the materials submitted, a letter of acceptance (or denial) to the master's program, contingent on meeting the accelerated requirements and completing the bachelor's degree, will be sent to the student.

Students must complete the bachelor's degree prior to entering the master's program. Students in the accelerated program may not elect to bypass the bachelor's degree. Students must receive a grade of "B" or better in the double-counted graduate level courses. Courses with a grade of "C" or below may not be double-counted toward the graduate degree. No more than 12 hours of graduate work may be counted toward the requirements of both degrees.

Students must complete the master's degree within six (6) years of the start of their first graduate course. If the master's program is not completed within those time limits, none of the graduate courses taken as an undergraduate will be counted toward the master's degree. Permission to pursue the accelerated program does not guarantee admission to the Graduate College. Admission is contingent on meeting eligibility requirements at the time of entering the graduate program.

A student may at any time withdraw from the accelerated program by informing the graduate program coordinator in writing. A copy of this will be sent to the Graduate College. If a student completes the baccalaureate degree requirements with a GPA of less than 3.0, he or she is no longer eligible to pursue the accelerated program. A student who does not follow the accelerated degree requirements may

become ineligible to participate in the accelerated program.

## **GRADUATE PROGRAM**

The graduate program in criminal justice allows students to prepare for management and other careers in criminal justice and related fields. The program leads to the Master of Arts or the Master of Science degree in criminal justice. For more information, consult the *Radford University Graduate Catalog*.

## **ENGLISH**

**Rosemary Fithian Guruswamy\***,  
**Chairperson**  
[www.radford.edu/~engl-web/](http://www.radford.edu/~engl-web/)

## **UNDERGRADUATE PROGRAM**

Designed to afford students an integrated, comprehensive learning program, the English major teaches students the fundamental ways of organizing knowledge in the discipline. Majors may earn either a Bachelor of Arts or a Bachelor of Science degree; both degrees prepare students for continued study in advanced programs, for teaching, or for entry into various professions where critical and creative thinking, writing and other communication and problem solving skills are valued and employed.

The major incorporates a writing-intensive requirement which integrates instruction in writing and the use of writing as a powerful learning tool into the whole curriculum, following a sequenced and coordinated plan. Students take four writing-intensive courses throughout the major.

## B.A. OR B.S. DEGREE

### ENGLISH MAJOR

All requirements for English majors are outlined below. Among the requirements is a minimum of 48 semester hours of upper division English courses. All courses for the English major must be completed with a grade of “C” or higher.

#### **Core Curriculum Requirements 43-45** (See p. 71.)

In College Core B, all majors in programs in the College of Humanities and Behavioral Sciences are required to pass a second course in Social and Behavioral Sciences; i.e., CHBS majors cannot fulfill College Core B requirements with a Health and Wellness course.

#### **Required Major Courses 36**

ENGL 300. Introduction to English Studies. (WI) 3

*Prerequisite for all 400-level literature courses.*

ENGL 330. British Literary History I. 3

ENGL 331. British Literary History II. 3

ENGL 340. American Literary History. 3

ENGL 420. Introduction to Literary Criticism. (WI) 3

ENGL 463, 464, or 465. (language study) 3

One of the following American period courses:  
ENGL 442, 443, 444, 445, 451 3

One of the following British period courses:  
(must be in area not covered by choice of 330/331)

ENGL 431, 433, 434, 435, 437, 438, 439,  
or 451. 3

ENGL 470. Author in Context. (WI) 3

ENGL 472. Readings in Shakespeare. 3

One of the following multicultural literature courses:

ENGL 446, 447, 449, 450, 453, 454,  
or appropriate 314. 3

ENGL 496. Senior Seminar. (WI) 3

#### **Additional Upper Division English Courses 12**

Twelve additional semester hours from any 300- or 400-level English.

## **B.A./B.S. Requirements 12** (See below.)

### **Electives**

Students should consult with their academic advisors in selecting elective courses to complete the 120 semester hours required for graduation.

## **Total Credits Needed for Degree 120**

## **B.A./B.S. REQUIREMENTS**

### **B.A. Requirements 6-12**

The Bachelor of Arts degree requires completion of the B.A. language requirement described on p. 77 of this catalog.

### **B.S. Requirements 6-8**

The Bachelor of Science non-teaching degree requires six to eight hours beyond the Core Curriculum requirements in courses selected from the following departments: Mathematics, Statistics, Communication, Information Science and Technology, any social science, and any natural/physical science. Students who begin but do not complete the B.S. teaching degree will be allowed to use up to eight hours with a College of Education and Human Development departmental prefix toward the B.S. non-teaching requirements.

## **GRADUATION REQUIREMENTS**

In order to graduate with a major in English, a letter grade of “C” or higher must be earned in all ENGL prefix courses.

## **TEACHER LICENSURE**

English majors who wish to earn licensure to teach English must take ENGL 463 to fulfill the language study requirement and also complete the English Education concentration (see below) as part of the major. They also must take

ENGL 428 concurrently with student teaching. This counts as part of the professional education core but not as part of the major. To be licensed, a student must also take one of the following: COMS 114, Public Speaking; COMS 230, Communication Theory; or COMS 240, Teamwork and Communication. In addition, appropriate courses in education must be taken. (Contact an English Education advisor for information concerning these courses.)

## CONCENTRATIONS

Students seeking one of the pre-professional concentrations will fulfill all the requirements for the English major core and use their elective hours to complete the concentration.

### ENGLISH EDUCATION CONCENTRATION

Three courses taken as English electives; students must also complete all courses for licensure including ENGL 426 in the field experience semester.

ENGL 402. Teaching Writing.	3
ENGL 425. Adolescent Literature.	3
One additional 300- or 400-level writing course with ENGL prefix.	3
One additional 300- or 400-level course with ENGL prefix.	3

### TECHNICAL AND BUSINESS WRITING CONCENTRATION

*Four courses taken as English electives:*

ENGL 306. Professional Writing.	3
ENGL 403. Grammar and Style for Writers.	3
ENGL 406. Advanced Technical Writing.	3
ENGL 407. Technical Editing.	3

## MINORS

### ENGLISH MINOR

21

The English minor requires CORE 101, CORE 102, ENGL 300, and 12 more semester hours with an ENGL prefix, of which 9 must be on the 300- or 400-level. The minor in English does not provide licensure to teach.

### TECHNICAL AND BUSINESS WRITING MINOR

18

The minor requires 18 semester hours, which include CORE 101, CORE 102, and the four courses listed in the technical and business writing concentration above.

## GRADUATE PROGRAM

The graduate program in English leading to a Master of Arts or Master of Science degree prepares students for teaching at the secondary and college levels, for continued study in pursuit of the doctoral degree and for entry into various professions where critical thinking and writing are valued and employed. For further information, consult the *Radford University Graduate Catalog*.

## FOREIGN LANGUAGES AND LITERATURES

**Philip D. Sweet, Chair**

[www.radford.edu/~forl-web/](http://www.radford.edu/~forl-web/)

## UNDERGRADUATE PROGRAM

The foreign languages program is designed to teach a command of a foreign language, to teach students to analyze language and literature, and to make students aware of the heritage of another culture. Students may earn either a Bachelor of Arts or a Bachelor of Science degree; the degree programs prepare students to become language teachers or to work in business or government.

All majors in modern foreign languages are required to show satisfactory participation in an intensive immersion experience in the language of their major. This may be in the form of a study abroad program, a service project, or intensive upper-level language instruction in the United States. In all cases, this experience may not be less than four calendar weeks and must be approved by the department prior to departure. Radford offers a summer study program abroad in China, France, Mexico and Spain, and a semester or year's study in China, Germany, Spain, Mexico, and France.

## FOREIGN LANGUAGES MAJOR

Students pursuing a Foreign Languages major choose the Modern Foreign Languages Concentration.

**Core Curriculum Requirements**      **43-45**  
(See p. 71.)

In College Core B, all majors in programs in the College of Humanities and Behavioral Sciences are required to pass a second course in Social and Behavioral Sciences; i.e., CHBS majors cannot fulfill College Core B requirements with a Health and Wellness course.

## MODERN FOREIGN LANGUAGE CONCENTRATION

**Required Courses**      **30**

Majors must choose one of the following: 30 semester hours with at least 24 hours above the intermediate level of French, which must include FREN 361 or FREN 362, and at least one course on the 400 level; or 30 semester hours with at least 24 hours above the intermediate level of German, which must include at least one course on the 400 level; or 30 semester hours with at least 24 hours above the intermediate level of Spanish, which must include SPAN 320 and at least two courses on the 400 level.

**B.A./B.S. Requirements**      **6-12**

### Electives

Students should consult with their academic advisors in selecting elective courses to complete the 120 semester hours required for graduation.

**Total Credits Needed for Degree**      **120**

## B.A./B.S. REQUIREMENTS

### B.A. Requirements

Foreign Language majors fulfill all language requirements for the Bachelor of Arts degree. Foreign Language majors in the Bachelor of Arts program must also complete either a minor or a second major.

### B.S. Requirements

For the Bachelor of Science degree, eight hours in education toward the endorsement in secondary education are required.

## GRADUATION REQUIREMENTS

To graduate with a major in Foreign Languages and Literatures, a student must have a grade point average of 2.0 or higher in all courses attempted in the major.

## MINORS

### FOREIGN LANGUAGES MINOR (18 semester hours)

A student seeking a minor in Foreign Languages must complete 18 semester hours in a specific language with at least one course on the 300 or 400 level. Latin minors may include CLSS 110. A minimum grade point average of 2.0 is required.

### CLASSICAL HUMANITIES MINOR (18 semester hours)

This minor requires 18 semester hours: nine hours chosen from CLSS 110, CLSS 120, CLSS 210 and CLSS 220; and nine hours chosen from CLSS 460, CLSS 110, CLSS 120, CLSS 210,

CLSS 220, HIST 308, HIST 309, HIST 311, PHIL 114, POSC 110, POSC 370, THEA 375 and any Greek or Latin courses (up to six hours, including courses taken to satisfy the Bachelor of Arts degree language requirement). A minimum grade point average of 2.0 is required.

**INTERCULTURAL STUDIES MINOR  
(21 semester hours)**

Students who desire to complement their foreign language skills with a cultural focus may obtain an Intercultural Studies Minor. A student seeking a minor in Intercultural Studies must complete 21 semester hours, which must include Understanding Cultures (SOCY 121) and at least one course in the Department of Foreign Languages and Literatures.

No more than nine hours or three courses from the same department can be applied to the minor. No more than six hours in the Intercultural Studies Minor can be also used to meet either Core Curriculum requirements or requirements for a major or another minor program. Three hours must be in 300- and 400-level courses. Students must choose one of three fields of specialization: Classics, Latin America, or Western Europe. The other required core courses for each field of concentration are listed below. Appropriate electives must be chosen to complete the 21 semester hours required for the minor.

A minimum grade point average of 2.0 is required.

The program of all Intercultural Studies minors must be approved by the Chair of the Department of Foreign Languages and Literatures. Elective courses also must relate to the field of specialization.

**Required Core in Classics**

Two college-level language courses in Latin (a minimum of six semester hours), or three years of high school instruction in Latin and one college-level language course in Latin (a minimum of three semester hours), and:

- CLSS 110. Classical Mythology. 3
- HIST 308. Ancient Greece and Rome. 3
- PHIL 114. The Origins of Western Philosophy. 3

**Required Core in Latin America**

Two college-level language courses in Spanish (a minimum of 6 semester hours), or three years of high school instruction in Spanish and one college-level language course in Spanish (a minimum of three semester hours), and:

- GEOG 280. Regional Geography. 3
- HIST 316. Colonial Latin America. or
- HIST 317. National Latin America. 3
- POSC 461. Government and Politics of Latin America. 3

**Required Core in Western Europe**

Two college-level language courses in either French, German or Spanish (a minimum of six semester hours), or three years of high school instruction in one of these languages and one college-level language course in that same language (a minimum of three semester hours), and:

- GEOG 280. Regional Geography. 3
- HIST 342. Revolutionary Europe, 1789 to 1890. 3
- or
- HIST 343. Europe Since 1890. 3
- POSC 341. Western European Government and Politics. 3

**CREDIT GRANTING POLICY**

**ADVANCED PLACEMENT**

Students who score three or four on an Advanced Placement examination in Spanish will receive six hours of credit; students who score a three or four in French, German, or Latin will receive eight semester hours of credit toward graduation; those who score a five in Spanish will receive nine hours of credit, and those who score a five in French, German, or Latin will receive twelve semester hours of credit. However, students are required to complete at least one three semester hour course on the second year level or higher at Radford University in order to satisfy the B.A. requirement.

Students who have taken a foreign language in high school and who begin their college-level study of that language above the first eight hours of language instruction (above the first nine hours in Spanish) will receive an additional six semester hours of elementary language credit in that same language if the following conditions are met:

The student's first two college courses in that language at Radford University are completed on the above mentioned level or beyond.

A GPA of 2.4 or better is received for those two courses. Students already receiving AP credit for a foreign language are ineligible to receive this additional credit in that same language.

## **ELIGIBILITY FOR ENROLLMENT IN LANGUAGE COURSES**

To provide the best learning environment in language classes, it is essential that students enroll in courses appropriately suited to their current abilities. Placement is determined by the faculty, based on the student's previous learning, interviews, and placement testing. The decision of the Chair of the Department of Foreign Languages and Literatures is final. Students who have successfully completed four or more years of a foreign language in high school may not enroll in the first semester of that language for credit, and those who have successfully completed three or more years are normally placed above the first semesters of language instruction.

No student may take a first year language course for credit toward graduation after successful completion of a second year or higher level course in that language.

## **HISTORY**

**Sharon A. Roger Hepburn, Chairperson**  
[www.radford.edu/~hist-web/index.html](http://www.radford.edu/~hist-web/index.html)

## **UNDERGRADUATE PROGRAM**

The Department of History offers preparation for teachers of history in the public schools

and for students who want a well-rounded liberal arts education as a background for a wide range of future careers.

History majors may earn either a Bachelor of Science or a Bachelor of Arts degree. The Bachelor of Science degree prepares students for varied employment opportunities in business, law, or government. The Bachelor of Arts prepares students for similar careers and is recommended specifically for students planning graduate work in history or other social science fields. Careful planning of the undergraduate program, with supplementary courses in other fields, can equip the student for future positions in libraries, museums, archives or similar institutions and for research oriented occupations.

The department also offers basic courses in American and world history to meet Core Curriculum requirements as well as supplementary courses of general interest for non-majors, including American and non American courses in regional/national history, political/social/military history and ethnic/gender history.

## **B.A. OR B.S. DEGREE**

### **HISTORY MAJOR**

All requirements for the history major are outlined below. Among the requirements are 39 credit hours of Required Courses.

### **Core Curriculum Requirements 43-45 (See p. 71.)**

In College Core B, all majors in programs in the College of Humanities and Behavioral Sciences are required to pass a second course in Social and Behavioral Sciences; i.e., CHBS majors cannot fulfill College Core B requirements with a Health and Wellness course.

<b>Required Courses</b>	<b>39</b>
HIST 101, 102. World History.	6
HIST 111, 112. U. S. History.	6
HIST 295. (to be taken in sophomore year)	3

HIST 495. Senior Seminar (to be taken during the senior year) 3

**Other required History courses**  
(exclusive of HIST 295 and HIST 495) 21  
3 courses from Group A (United States) 9  
2 courses from Group B (Europe) 6  
2 courses from Group C (Africa, Asia, Latin America, Middle East) 6  
(Students may not count any one course for more than one group)

**Group A courses include:**  
300, 302, 303\*, 306\*, 320, 330, 331, 352, 354, 355, 356, 360, 361, 364, 365, 368, 372, 373, 375, 381, 385\*, 392\*, 498\*

**Group B courses include:**  
300, 302, 303\*, 306\*, 308, 309, 311, 337, 338, 339, 341, 342, 343, 345, 346, 347, 349, 350, 385\*, 392\*, 498\*

**Group C courses include:**  
300, 303\*, 306\*, 311, 313, 314, 316, 317, 319, 320, 325, 326, 345, 346, 347, 385\*, 392\*, 498\*  
\*The group designation for these courses depends on the content

**Other Requirements**  
Completion of a senior writing project (to be completed as part of HIST 495).

## B.A./B.S. REQUIREMENTS

### B.A. REQUIREMENTS 6-12

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 77 of this catalog. History majors, particularly those planning graduate work in history, are strongly urged to pursue a B.A. degree.

### B.S. Requirements 6-8

Candidates for the Bachelor of Science degree in history can choose to take six to eight hours beyond the Core Curriculum requirements in courses from one of the following areas:

- Mathematical Sciences: Mathematics (except 111, 112, 114, 116, 312) and Statistics, Information Technology
- Natural Sciences: Astronomy, Biology, Chemistry, Geology, Physics, Anthropological Science

Or, they can elect to take six to eight hours in one of the following disciplines:

- Geography (200- 400-level)
- Political Science (300- 400-level)
- Art (courses designated AH or MS only)

## GRADUATION REQUIREMENTS

To graduate with a major in History, a student must have a grade point average of 2.0 or higher in all courses taken with a HIST prefix. A grade of “C” or better is required in HIST 295 and HIST 495.

## TEACHING

Students wishing to teach History should declare a Social Science major. (See p. 165 for details). To strengthen credentials as a history teacher, students should consider a double major in both Social Science and History.

## HISTORY INTERNSHIPS

Students wishing to earn academic credit for an internship in history should consult with the Office of Experiential Learning or the Department’s faculty liaison.

## HISTORY MINOR (21 semester hours)

HIST 101, 102, 111, 112 12  
One course from each of the course designation groups (Group A, U.S.; Group B, Europe; Group C, Africa, Asia, Latin America, Middle

East). Students may not count any one course for more than one Group. 9

## HONORS PROGRAM

The History Department offers a departmental honors program. For a general description of the Honors Academy at Radford, see p. 81. For specific requirements of this department's program, contact the department chairperson or the director of the Honors Academy.

## INTERDISCIPLINARY STUDIES

### UNDERGRADUATE PROGRAM

Interdisciplinary Studies is the required major for those students planning to teach early childhood education/early childhood special education, elementary education (grades PreK-6 option), middle education (grades 6-8 option), special education (deaf and hard of hearing; general curriculum). Students planning to pursue one of these programs can find complete details in the College of Education and Human Development information (p. 91). Other students who desire a broader major that cannot be met with existing majors and minors also should consider Interdisciplinary Studies, pursuing the liberal arts non-teaching option. Interdisciplinary Studies/liberal arts non-teaching requirements can be found below.

### INTERDISCIPLINARY STUDIES MAJOR, LIBERAL ARTS NON-TEACHING OPTION

The Interdisciplinary Studies Major, Liberal Arts Option (IDSL) degree is intended for students who have a clearly defined educational goal that cannot be met by another degree program or combination of majors and minors at RU. The flexibility offered by this program should be aimed at accomplishing unique and specifically defined sets of learning goals. Students must submit an application for admission to the IDSL program. Applications are available

in the College of Humanities and Behavioral Sciences Advising Center. In their application for admission to the IDSL program, students must complete an essay explaining why they want to enter the IDSL program by noting their educational and career goals and discussing why their goals cannot be met by existing majors and minors.

### Core Curriculum Requirements 43-45 (See p. 71.)

In College Core B, all majors in programs in the College of Humanities and Behavioral Sciences are required to pass a second course in Social and Behavioral Sciences; i.e., CHBS majors cannot fulfill College Core B requirements with a Health and Wellness course.

Additionally, courses used to meet Core Curriculum requirements may not be double-counted toward the Liberal Arts Core, Concentrations, or B.S. requirements.

### Liberal Arts Major Requirements 48

None of the classes used to fulfill Interdisciplinary Studies major requirements may be used to fulfill Core Curriculum requirements.

### Liberal Arts Core Requirements 12

A minimum of three semester hours must be completed in each of the following areas:

Humanities (ENGL 306, Professional Writing, or ENGL 307, Business Writing, are recommended)

Philosophy (PHIL 112, Ethics and Society, or PHIL 113, Reasoning and Argument, are recommended)

Social and Behavioral Sciences  
Visual and Performing Arts

## LIBERAL ARTS CONCENTRATION

### Requirements 36

Students must complete 36 credit hours from two departments (one must be from the College of Humanities and Behavioral Sciences) with no more than 24 hours from any one

department. At least 50 percent of each concentration must be taken at the 300-400-level and 50 percent of each concentration must be completed at Radford University. No courses from the College of Business and Economics can be used in either concentration. All coursework in each concentration will be used to compute each grade point average.

**B.A. Requirements 6-12**

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 77 of this catalog.

**B.S. Requirements 6-8**

Taken in one discipline chosen from MATH, ITEC, or the natural and physical sciences.

**Total Credits Needed for Degree 120**

## INTERNATIONAL STUDIES

**James H. Radford, Director**  
**248 Russell Hall**  
**(540) 831-6458**

For detailed information about the Minor in International Studies, see p. 135.

## MILITARY SCIENCE (ARMY ROTC)

**MAJ James Conrad, Chairperson**  
**<http://arotc.asp.radford.edu>**

## UNDERGRADUATE PROGRAM

The Department of Military Science provides a program of leadership development which prepares college men and women for service as officers in the United States Army. After graduation, they serve as commissioned officers on active duty, or as an officer in an Army Reserve unit. To accomplish this, the Department of Military Science:

Prepares cadets to be commissioned as second lieutenants through a curriculum which develops leadership and management skills and

provides opportunities to utilize these skills in a variety of practical applications.

Provides an understanding of how to lead and influence small organizations, with a strong emphasis on personal integrity, ethical decision making, goal setting, and mission accomplishment.

Offers adventure training, such as rappelling, land navigation, marksmanship, and, for selected cadets, airborne and air assault training as well as the opportunity to serve with active Army units, worldwide, during the summer.

Provides programs and experiences which increase self confidence, self-discipline, physical stamina, poise, and other attributes essential to the development of a leader of character who is prepared to serve the nation or the Commonwealth of Virginia both in and out of uniform.

The curriculum and leader development programs of the Department of Military Science are both mentally and physically challenging. Cadets learn individual soldier skills and undergo physical conditioning beginning in the freshman year. On-campus instruction is done both in the classroom and in the field environment. Field trips expand the general knowledge of cadets and provide opportunities for practical leadership experience.

Summer Leadership Evaluations occur between the junior and senior years at Fort Lewis, Washington.

Army ROTC offers the conventional four-year program for students entering as freshmen. A three-year program for sophomores is also available. Additionally, a two-year program is offered for students who have been unable to participate as freshmen or sophomores. Placement credit may be requested by students currently serving in the Army Reserve or National Guard, or by those who have had prior active service.

Cadets enrolled in the junior and senior years of ROTC and cadets on scholarship are paid a tax-free monthly stipend of \$250 for ten months during each school year for a total of \$2,500. The department also offers two and three-year competitive scholarships. Four-year competitive scholarships are offered by the U.S. Army during the senior year of high school. Applications for these scholarships are available through the department.

## LEADERSHIP AND MILITARY SCIENCE UNDERGRADUATE MINOR PROGRAM

The Leadership and Military Science minor program is designed to supplement any major and will be available to all university students. It will provide students with a firm foundation with which to enter the work force after graduation.

The minor will be supervised and administered by the Military Science (MSCI) department. To obtain achievement will require a grade of “C” or above in all courses required for the program.

### Minor Requirements 26

MSCI 111. Introduction to Leadership and the Army.	2
MSCI 112. Developing Leadership I.	2
MSCI 211. Leadership Styles/Theory and Application.	3
MSCI 212. Developing Leadership Skills II.	3
MSCI 311. Leading Small Organizations.	4
MSCI 312. Developing Leadership III.	4
MSCI 411. Leadership Challenges and Organizational Goal-setting.	4
MSCI 412. Transition to Officership.	4
ROTC students who take a 5 week summer Leadership Training Course at Ft. Knox can count this camp as credit toward ROTC Basic course (MSCI 111, 112, 211, and 212) and the minor in Leadership and Military Science.	

## PEACE STUDIES

**Glen T. Martin, Chairperson**  
**706 Fairfax Street E105**  
**(540) 831-5897**

For more information about the Minor in Peace Studies, see p. 137.

## PHILOSOPHY AND RELIGIOUS STUDIES

**Joe Frank Jones III, Chair**  
**[www.radford.edu/~phre/index.html](http://www.radford.edu/~phre/index.html)**

### UNDERGRADUATE PROGRAM

The department offers both a major and a minor in which students may concentrate in either philosophy or religious studies. Philosophy and Religious Studies majors may earn either a Bachelor of Arts or a Bachelor of Science degree.

A concentration in philosophy provides students with a broad understanding of the history and dynamics of Western thought, a detailed knowledge of moral and theoretical issues in this tradition, and training in critical and analytic thinking skills. This concentration prepares students for graduate study in philosophy, law, and other humanities disciplines, and enhances performance in virtually any occupation in which critical thinking and conceptual analysis are integral.

A concentration in religious studies provides students with a broad understanding of the world’s major religions (including Hinduism, Buddhism, Daoism, Judaism, Christianity, and Islam); a knowledge of the common elements and themes in religion; and a familiarity with the various approaches and methods used to study the substance and functioning of religion. This concentration prepares students for any vocation concerned with human motivations and values, such as social services or cross-cultural endeavors, and for graduate study in religion in universities or seminaries.

More than vocational preparation, the Philosophy and Religious Studies major provides an education in the broad liberal arts tradition. In different ways, each concentration introduces students to the most profound and universal questions humans have asked, and to their most thoughtful and enduring answers.

## B.A. OR B.S. DEGREE

### PHILOSOPHY AND RELIGIOUS STUDIES MAJOR

All department majors must complete the requirements for at least one of the two concentrations offered by the department.

### PHILOSOPHY CONCENTRATION

All requirements for students in this concentration are outlined below. Among the requirements are 27 semester hours of required philosophy and religious studies courses and 6 hours of program-specific electives.

#### Core Curriculum Requirements 43-45 (See p. 71.)

In College Core B, all majors in programs in the College of Humanities and Behavioral Sciences are required to pass a second course in Social and Behavioral Sciences; i.e., CHBS majors cannot fulfill College Core B requirements with a Health and Wellness course.

#### Required Courses (27 hours)

##### Philosophy and Religious Studies

##### Common Core (9 hours)

RELN 112. Survey of World Religions.	3
PHIL 114. Introduction: The Origins of Western Philosophy.	3
PHIL 350. Philosophy of Religion.	3

##### Area Requirements (15 hours)

##### Area A: History of Philosophy – Two of the following:

PHIL 201. Medieval and Renaissance Philosophy.	3
PHIL 302. Early Modern Philosophy.	3
PHIL 303. Late Modern Philosophy.	3

##### Area B: Logic – One of the following:

PHIL 213. Critical Reasoning and Argument.	3
PHIL 340. Symbolic Logic.	3

##### Area C: Knowledge and Reality – One of the following:

PHIL 320. Metaphysics.	3
PHIL 330. Theories of Knowledge.	3

##### Area D: Value Theory – One of the following:

PHIL 310. Professional Ethics.	3
PHIL 380. Philosophy of Law.	3
PHIL 390. Ethical Theory.	3

##### Capstone (3 Hours)

PHIL 421. Topics in Philosophy.	3
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##### Additional Upper Division Philosophy and Religious Studies Courses

Six additional semester hours from any 300- or 400-level PHIL or RELN.

## B.A./B.S. REQUIREMENTS 6-12

### Electives

Students should consult with their academic advisors in selecting elective courses to complete 120 semester hours required for graduation.

### Total Credits Needed for Degree 120

### RELIGIOUS STUDIES CONCENTRATION

All requirements for students in this concentration are outlined below. Among the requirements are 27 semester hours of required philosophy and religious studies courses and 6 hours of program-specific electives.

#### Core Curriculum Requirements 43-45 (See p. 71.)

In College Core B, all majors in programs in the College of Humanities and Behavioral Sciences are required to pass a second course in Social and Behavioral Sciences; i.e., CHBS majors cannot fulfill College Core B requirements with a Health and Wellness course.

<b>Required Courses</b>	<b>(27 hours)</b>
Philosophy and Religious Studies Common Core hours)	(9)
RELN 112. Survey of World Religions.	3
PHIL 114. Introduction: The Origins of Western Philosophy.	3
PHIL 350. Philosophy of Religion.	3

**Area Requirements (15 hours)**

**Area A: Sacred Texts – One of the following:**

RELN 310. Exploring the Old Testament.	3
RELN 312. Exploring the New Testament.	3
RELN 320. Jesus and the Gospels.	3
RELN 380. Old Testament Topics.	3

**Area B: Traditions and Cultures**

- (1) Eastern: One of the following:
  - RELN 350. Religion in India. 3
  - RELN 360: Religion in China and Japan. 3
- (2) Western: Two of the following:
  - RELN 330: History of Christianity. 3
  - RELN 370: American Sects and Cults. 3
  - RELN 375: Religion and American Nationalism. 3

**Area C: Comparative Themes:**

**One of the following:**

RELN 205: Religion and Culture.	3
RELN 206: Survey of Religious Experiences.	3
RELN 305: Religion and Women.	3
RELN 381: Religion and Death.	3

**Capstone (3 hours)**

RELN 420: Topics in Religious Studies.	3
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**Additional Upper Division Philosophy and Religious Studies Courses**

Six additional semester hours from any 300- or 400-level PHIL or RELN.

**B.A./B.S. Requirements 6-12**

**Electives**

Students should consult with their academic advisors in selecting elective courses to complete 120 semester hours required for graduation.

**Total Credits Required for Degree 120**

**B.A./B.S. REQUIREMENTS**

**B.A. Requirements 6-12**

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 77 of this catalog.

**B.S. Requirements 6-8**

Candidates for the Bachelor of Science degree in philosophy and religious studies can choose to take six to eight hours beyond the Core Curriculum requirements in courses from the following departments: Mathematics and Statistics, Information Technology, Biology, Chemistry, Physics, Geology, and Anthropological Science. Or, they can elect to take six to eight hours of 300-400 level courses in one of the following disciplines: For the Philosophy Concentration: Art, English, History or Political Science. For the Religious Studies Concentration: English, History, Political Science, Psychology or Sociology.

**GRADUATION REQUIREMENTS**

To graduate with a major or minor in Philosophy and Religious Studies, a student must have a grade point average of 2.0 or higher in all courses taken with a PHIL or RELN prefix.

**PHILOSOPHY MINOR (18 semester hours)**

The minor in philosophy consists of 18 hours of philosophy courses as outlined below:

PHIL 114. Introduction: The Origins of Western Philosophy.	3
Two of the following three courses:	(6)
PHIL 201. Medieval and Renaissance Philosophy.	3
PHIL 302. Early Modern Philosophy.	3
PHIL 303. History of Late Modern Philosophy.	3

And  
 One of the following two courses:  
 PHIL 213. Critical Reasoning and  
 Argumentation. (3)  
 PHIL 340. Symbolic Logic. 3

- 1) American politics;
- 2) Public administration;
- 3) Comparative politics;
- 4) International relations;
- 5) Methodology; and
- 6) Political philosophy.

And  
 PHIL 390. Ethical Theory. 3

And  
 PHIL 421. Topics in Philosophy. 3

For students desiring to teach political science at the secondary level, the teacher licensure option is offered through the Bachelor of Science program for Social Science. Students may pursue either a Bachelor of Arts or Bachelor of Science degree.

**RELIGIOUS STUDIES MINOR  
 (18 semester hours)**

The minor in religious studies consists of 18 hours of religious studies courses as outlined below.

One of the following:  
 RELN 111. Introduction to Religion. 3  
 Four Religious Studies courses at the 300-400 level. 12  
 RELN 420: Topics in Religious Studies. 3

**B.A. OR B.S. DEGREE**

**POLITICAL SCIENCE MAJOR**

All requirements for political science majors are outlined below. In addition to the core of required courses, all students must complete course work in one of the two concentrations.

**Core Curriculum Requirements 43-45  
 (See p. 71.)**

**POLITICAL SCIENCE**

**Margaret S. Hrezo, Chairperson  
<http://posc-web.asp.radford.edu>**

In College Core B, all majors in programs in the College of Humanities and Behavioral Sciences are required to pass a second course in Social and Behavioral Sciences; i.e., CHBS majors cannot fulfill College Core B requirements with a Health and Wellness course.

**UNDERGRADUATE PROGRAM**

Political Science involves the study of politics and government. The political science curriculum at Radford is intended to provide undergraduates with a broad background in the discipline within the broader context of a liberal education. The major and minor requirements in political science are intended to develop students' analytical and communication skills as well as a knowledge of politics and government.

Given its objectives, the curriculum covers six areas corresponding with the subfields of modern political science:

**Required Departmental Core 12**  
 POSC 110. Introduction to Politics. 3  
 POSC 120. Introduction to American Government. 3  
 POSC 231. Comparative Government. 3  
 POSC 241. Theories of International Relations. 3

**Concentration 21-30  
 (See below.)**

**B.A./B.S. Requirements 6-12  
 (See below.)**

## Electives

Students should consult with their academic advisors in selecting elective courses to complete 120 semester hours required for graduation.

**Total Credits Needed for Degree**                    **120**

## CONCENTRATIONS

### CONCENTRATION IN POLITICAL SCIENCE                    **21**

Students must complete one upper-level course (other than POSC 485, 488, 490, or 498) in each of the following areas: American Government (AG), Comparative Government (CG), International Relations (IR), and Political Theory (PT). In addition, students must complete either POSC 490, Seminar, or POSC 491, Scope and Methods in Political Science. The total hours earned in political science must be a minimum of 33.

### CONCENTRATION IN PUBLIC ADMINISTRATION AND PUBLIC SERVICE                    **30**

Students must complete POSC 300, 335, 432, 435, and one of the following AG courses: POSC 320, 321, 330, 331, or 485. Students also complete one upper-level course (other than POSC 485, 488, 490, or 498) in each of the following areas: Comparative Government (CG), International Relations (IR), and Political Theory (PT). In addition, students must complete both POSC 490, Seminar (preferably on a Public Administration topic, which may then be counted toward the 15 hours in the concentration field), and POSC 491, Scope and Methods in Political Science. The total hours earned in political science must be a minimum of 42.

## B.A./B.S. REQUIREMENTS

### B.A. Requirements                    **6-12**

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 77 of this catalog.

### B.S. Requirements                    **6**

Bachelor of Science requirements for political science majors consist of six semester hours chosen from the following:

- STAT 200. Introduction to Statistics.                    3  
and
- ECON 105. Principles of Macroeconomics.  
or
- 106. Principles of Microeconomics.                    3

Students should consult with their academic advisors to determine which degree option best suits their needs. The department strongly encourages students to take a foreign language, but also recognizes that there is no one program of study that is equally suited to every student. Regardless of whether students pursue the Bachelor of Arts or Bachelor of Science degree, they are encouraged to include some of the above courses in their elective curricula.

## GRADUATION REQUIREMENTS

To graduate with a major in Political Science, a student must have a grade point average of 2.0 or higher in all courses taken with a POSC prefix.

## TEACHING LICENSURE

Students wishing to teach government at the secondary level should declare a social science major (see p. 157). To strengthen credentials as a government teacher, students should consider a double major in both social science and political science.

**POLITICAL SCIENCE MINOR**  
(18 semester hours)

The minor in political science consists of two courses from among POSC 110, 120, 231, and 241; and twelve additional hours in the department, at least nine of which are at the 300- or 400-level.

**HONORS PROGRAM**

For a general description of the Honors Academy at Radford, see p. 80. For specific requirements of the departmental honors program, contact the department chairperson or the director of the Honors Academy.

**PSYCHOLOGY**

**Hilary M. Lips\***, Chairperson  
[www.radford.edu/~psyc-web/](http://www.radford.edu/~psyc-web/)

**UNDERGRADUATE PROGRAM**

The program in psychology is designed to provide a basic foundation for entry into graduate programs in psychology or education fields and careers involving human services or research. Department majors may earn either a Bachelor of Arts or a Bachelor of Science degree.

**B.A. OR B.S. DEGREE**

**PSYCHOLOGY MAJOR**

All requirements for psychology majors are outlined below.

<b>Prerequisite Survey</b>	<b>3</b>
PSYC 121. Introductory Psychology.	3
<b>Foundation Courses</b>	<b>7</b>
PSYC 222. Orientation to the Psychology Major.	1

PSYC 301. Analysis of Psychological Data	3
PSYC 302. Research Methods in Psychology.	3

**Core Courses (pick two from each area) 12**

**Area I: Social Sciences (SS)**

PSYC 317. Child Psychology.	3
PSYC 343. Social Psychology.	3
PSYC 361. Psychology of Personality.	3
PSYC 439. Abnormal Psychology.	3

**Area II: Natural Sciences (NS)**

PSYC 320. Introduction to Cognitive Psychology.	3
PSYC 333. Principles of Learning.	3
PSYC 377. Introduction to Sensation and Perception.	3
PSYC 378. Brain and Behavior.	3

**Integrative Research Experience –**

Lab Courses (pick one)	3
PSYC 420. Research in Human Cognition.	3
Prerequisites: 302, 320	
PSYC 434. Research in Learning.	3
Prerequisites: 302, 333	
PSYC 443. Research in Social Psychology.	3
Prerequisites: 302, 343	
PSYC 461. Research in Personality.	3
Prerequisite: 302, 361	
PSYC 477. Research in Sensation and Perception.	3
Prerequisites: 302, 377	
PSYC 478. Research in Physiological Psychology.	3
Prerequisites: 302, 378	
PSYC 491. Research Lab: Special Topics.	3
Prerequisites: 302, permission of instructor	

**Integrative Capstone Course 3**

PSYC 470. History and Systems of Psychology.	3
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**Elective Psychology Courses 9**

Any of the courses listed above beyond the minimum requirements or any other psychology courses not listed above but which are in the catalog, including independent studies.

**Total minimum hours for the major 37**



to teach history, political science, geography or economics must select the Teaching option. The Non-Teaching option provides a basic background for future graduate work in any of the social science areas and a well-rounded liberal education for careers in business, government and other similar fields.

## **B.A. OR B.S. DEGREE**

### **SOCIAL SCIENCE MAJOR**

All requirements for social science majors (both options) are outlined below.

#### **Core Curriculum Requirements 43-45** (See p. 71.)

In College Core B, all majors in programs in the College of Humanities and Behavioral Sciences are required to pass a second course in Social and Behavioral Sciences; i.e., CHBS majors cannot fulfill College Core B requirements with a Health and Wellness course.

#### **NON-TEACHING OPTION 51**

##### **Required Core Courses 30**

##### **History 18**

Nine semester hours of 100-level HIST  
9 semester hours of 300-400 level HIST (3 semester hours from Group A, 3 semester hours from Group B or Group C, and 3 semester hours of HIST from Group A, B, or C)

##### **Political Science 12**

POSC 120. In addition, students will take 9 semester hours of Political Science at the 300-400 level and in the American Government (AG) area.

##### **Concentration 6**

In addition to the History and Political Science requirements specified above, majors will select a concentration in either History or Political Science and take six additional semester hours at the 300-400 level in that field. If the

concentration is in History, those courses must be divided between American (Group A) and Non-American (Groups B, C) courses.

#### **Other Requirements 15**

##### **Geography 6**

Students must take one U.S. designated and one Non-U.S. designated course from the following list:

U.S. Geography: GEOG 101, 201, 202

Non-U.S. Geography: GEOG 102 OR 280

##### **Economics 3**

ECON 105 OR ECON 106

##### **Sociology 6**

Students must take 6 semester hours of SOCY courses, 3 of which must be at the 300-400 level. (Students who want to have an emphasis in anthropology should take two of the following courses in sociology: 121, 301, 333, 411, 421, 435, 475, 482, 486).

##### **Electives**

Students needing additional electives to meet their final degree requirements should consult their academic advisors for careful selection of appropriate course work.

#### **TEACHING OPTION 45**

##### **Required Courses**

##### **History 21**

HIST 101, 102, 111, 112. In addition, students will take 9 semester hours at the 300-400 level.

- 3 hours of Non-American History to be taken from: 300, 302, 308, 309, 311, 313, 319, 325, 326, 337, 338, 341, 342, 343, 346
- 3 hours of American History to be taken from: 306, 330, 331, 352, 354, 355, 356, 360, 361, 365, 368, 372, 375, 381
- 3 hours of History from either of the above two lists

**Political Science** 12

- POSC 120.
- In addition, students will take 9 semester hours at the 300-400 level from 320, 321, 326, 330, 333, 335, 337, 438, 439

**Geography** 6

- Students must take one U.S. designated and one Non-U.S. designated course from the following list:
- U.S. Geography: GEOG 101, 201, 202,
- Non-U.S. Geography: GEOG 102 or 280

**Economics** 6

- ECON 105 AND ECON 106

- Mathematical Sciences: Mathematics (except 111, 112, 114, 116, 312) and Statistics, Information Technology
- Natural Sciences: Astronomy, Biology, Chemistry, Geology, Physics, Anthropological Science  
Or, they can elect to take six to eight hours in one of the following disciplines:
- Economics: 300-400 level.
- Psychology: 300-400 level.

Students who have previously been Social Science Majors-Teaching Option may apply six semester hours of the Fall Education Block to the B.S. degree requirements if they have already received credit for those courses.

**TEACHER LICENSURE**

In addition to completing requirements in the Social Science major, those intending to teach in the public schools must also complete all specified courses and requirements in the Department of Education. Beginning with Fall 2010, Social Science Education candidates must have a 2.75 grade point average (at RU and in-major) in order to be admitted to Teacher Education and to Early Field Experiences. See p. 109 for details. Future teachers are also encouraged to take COMS 114 (Public Speaking).

**B.A./B.S. REQUIREMENTS** 6-12

**B.A. Requirements**

Majors seeking the B.A. degree in Social Science (both options) must complete B.A. language requirements described on p. 77 of this catalog.

**B.S. Requirements**

Candidates for the Bachelor of Science degree in Social Science (Non-Teaching Option) can choose to take 6-8 hours beyond the Core Curriculum requirements in courses from one of the following areas:

**Total Credits Needed for Degree** 120

**GRADUATION REQUIREMENTS**

To graduate with a major in Social Science, a student must have a grade point average of 2.0 or higher in all courses with departmental prefixes associated with their particular Social Science option.

**INTERNSHIP**

Students may use Internship credit towards their elective requirements in the major. They should consult with the Office of Experiential Learning or the faculty liaison in the appropriate history department.

**SOCIOLOGY**

**Carole L. Seyfrit, Chairperson**  
<http://soc.asp.radford.edu>

**UNDERGRADUATE PROGRAM**

The Department of Sociology promotes a challenging atmosphere in which students are encouraged to recognize, understand, and think

critically about social processes, issues, and cultural diversity. Through rigorous coursework, the program teaches students how to gather, analyze and interpret qualitative and quantitative data. Through research-in-service and internships students learn how to apply their knowledge and skills to problems and needs in businesses, organizations, and communities. A central part of our mission is to provide opportunities for independent student research as well as faculty and student collaborative research. We teach from the philosophy that active engagement in real-world research enhances employment opportunities and opens doors to graduate school. The department engages in sound career planning and preparation with each major.

The department offers the Bachelor of Arts or Bachelor of Science degree program in Sociology.

## B.A. OR B.S. DEGREE

### SOCIOLOGY MAJOR

All requirements for sociology majors are outlined below. Among the requirements are 21 semester hours of Required Courses and 15 hours of department electives.

#### Core Curriculum Requirements 43-45 (see p. 71)

In College Core B, all majors in programs in the College of Humanities and Behavioral Sciences are required to pass a second course in Social and Behavioral Sciences; i.e., CHBS majors cannot fulfill College Core B requirements with a Health and Wellness course.

<b>Required Courses</b>	<b>21</b>
SOCY 110. Introduction to Sociology.	
or	
SOCY 121. Understanding Cultures.	3
SOCY 250. Social Inequality.	3
SOCY 360. Sociological Theory.	3
SOCY 365. Individual and Society.	3
SOCY 380. Introduction to Social Research Methods.	3
SOCY 480. Survey Research Methods.	3
SOCY 497. Senior Seminar in Sociology.	3

#### Sociology Electives 15

Courses selected must include four additional 300- or 400-level courses not listed above. One elective must be satisfied by an approved internship or other designated applied sociology course selected in consultation with your advisor.

#### B.A./B.S. Requirements 6-12 (see below)

#### Electives 22-35

Students should consult with their academic advisors in selecting elective courses to complete 120 hours required for graduation.

#### Total Credits Needed for Degree 120

### B.A. REQUIREMENTS

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 77 of this catalog.

#### B.S. Requirements

Sociology majors pursuing the Bachelor of Science degree must complete six to eight semester hours chosen from the following:

Any class (if not used to meet a Core Curriculum requirement in ANSC, APST, BIOL, CHEM, COMS, ECON, GEOL, GEOS (courses designated T only), INST, MATH, PHYS, SOWK, STAT, WMST, or 300-400 level course in: ENGL, HIST, PHIL, POSC, PSYC, RELN.

### GRADUATION REQUIREMENTS

To graduate with a major in Sociology, a student must have a grade point average of 2.0 or higher in all courses taken with a SOCY prefix. Majors must complete all required courses in the major curricula listed above with a grade of "C" or better.

All majors in the department must successfully complete STAT 200: Introduction to Statistics. This course is a prerequisite for SOCY 380. It may be used to fulfill partially the Core Curriculum requirements for College Core B.

## MINORS

### **SOCIOLOGY MINOR** (18 semester hours)

This minor consists of a minimum of 18 semester hours in sociology, including SOCY 110 or SOCY 121, SOCY 210 or SOCY 250, and SOCY 365. The remaining hours must be in sociology and must include at least 6 credit hours at the 300- or 400-level.

### **HONORS PROGRAM**

In Sociology, the department currently offers a departmental honors program. For a general description of the Honors Academy at Radford, see p. 80 of this catalog. For specific requirements of the departmental honors program, contact the department chairperson or the director of the Honors Academy.

### **WOMEN'S STUDIES**

**Moira P. Baker, Director**  
**341 Russell Hall**  
**(540) 831-6143**  
[www.radford.edu/~wstudies/](http://www.radford.edu/~wstudies/)

For more information about the Minor in Women's Studies, see p. 138.

## **SCHOOL OF COMMUNICATION**

**Dr. Lynn M. Zoch, Director**  
**Dr. Lisa Baker Webster, Communication**  
**Coordinator**  
**Dr. Courtney Bosworth, Media Studies**  
**Coordinator**  
<http://www.radford.edu/comm>

The study of communication in the United States has emerged over the years as a highly diverse field that ultimately centers on the characteristics, uses, and effects of messages. The School of Communication offers a comprehensive education in that diverse field of study with courses of study leading to B.S. and B.A.

degrees in Communication and Media Studies. The Communication degree program offers concentrations in Communication Studies as well as Public Relations. The Media Studies degree program offers concentrations in Advertising, Journalism, Production Technology, and Web Design. Together the two degree programs offer students a broad range of possibilities for study and professional preparation.

All students in the School of Communication must complete six credit hours of Core Requirements.

COMS 130 Introduction to Communication 3  
COMS 230 Communication Theory 3

These courses are designed to introduce students to the history, contexts, influence, and theoretical grounding of the field of Communication. Students in the School of Communication must complete these two courses with a grade of "C" or higher before they will be permitted to take 300- and 400-level courses.

While the School of Communication does not require an international experience, it is strongly recommended as an essential component of an outstanding undergraduate education. The School of Communication regularly offers international study and travel opportunities designed to provide important intercultural learning experiences, along with a focused study of the theory and practice of communication in intercultural and international contexts. Students should meet with their advisor and plan their experience at the earliest possible time.

### **COMMUNICATION MAJOR**

The Communication Major is designed to prepare undergraduate students for the future in two ways. First, students are prepared to become professional communicators. The professional communicator role involves, but is not limited to, public relations, training, investor relations, human resources, community relations, crisis management, and governmental or legislative relations. Second, students are prepared to make contributions to a variety of organizations from a communication perspective. Students

have the opportunity to develop special knowledge and skill with regard to conflict, groups, leadership, relationships, public relations, political campaigns, organizations, etc. Whichever path students choose, they can be assured that communication knowledge and skills are highly valued.

Communication majors choose one of two concentrations leading to the Bachelor of Arts or the Bachelor of Science degree. The concentrations are Public Relations and Communication Studies.

All majors in Communication must complete: 1) 43-45 hours of Core Curriculum requirements; 2) the 6 to 8-hour B.S. requirement or the 6 to 12-hour B.A. requirement; 3) 6 hours of the School of Communication Core Requirements and 36 hours of a concentration in Public Relations or Communication Studies for a total of 42 hours in the School of Communication; and 4) elective courses for a total of 120 hours. A minor or a 15-hour concentration of conceptually related courses is strongly recommended.

### **Core Curriculum Requirements 43-45 (see p. 71)**

In College Core B, all majors in programs in the College of Humanities and Behavioral Sciences are required to pass a second course in Social and Behavioral Sciences; i.e., CHBS majors cannot fulfill College Core B requirements with a Health and Wellness course.

## **B.A./B.S. REQUIREMENTS**

### **B.A. Requirements 6-12**

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 77 of this catalog.

### **B.S. Requirements 6-8**

The Bachelor of Science degree requires six semester hours, in addition to Core Curriculum requirements, selected from any of the following areas: Math, statistics, computer science, or natural science (including GEOS 130, 336, 335 and 350). In addition, the following courses may be used to meet the B.S. requirement:

- PHIL 112. Introduction: Ethics and Society.
  - PHIL 113. Introduction: Reasoning and Argument.
  - PHIL 310. Topics in Professional Ethics.\*
  - PHIL 390. Ethical Theory.\*
  - COMS 400. Media Law and Ethics.\*
  - PSYC 301. Analysis of Psychological Data.
  - PSYC 302. Research Methods in Psychology.\*
  - PSYC 445. Psychological Tests and Measurements.\*
  - SOCY 380. Introduction to Social Research Methods.\*
  - SOCY 480. Survey Research Methods.\*
  - SOCY 482. Practicing Ethnographic Methods.\*
  - SOCY 485. Organizational Research.\*
  - ART 250. Photography.
  - ART 280. Introduction to Graphic Design.
  - BLAW 203. Legal Environment of Business.
  - ITEC 110. Principles of Information Technology.
- \*denotes prerequisites exist for these courses

## **CONCENTRATIONS**

### **COMMUNICATION STUDIES**

The concentration in Communication Studies prepares students for positions in both the private and public sectors as well as providing a solid foundation in the Communication discipline for those desiring to continue their education in graduate school. Courses in communication studies combine material from the humanities, fine arts, and social sciences in order to explain how and why people interact in the ways that they do. Students in the Communication Studies concentration will study the ways that people use communication in public life, politics, and social movements. Students will learn how to analyze and evaluate communication practices in a wide variety of settings and be able to apply practical, oral, written and visual communication skills and knowledge necessary for success in the 21st century marketplace.

**Total required hours for the concentration:**

**36**

<b>Required Courses:</b>	<b>24</b>	<b>Total required hours for the major</b>	<b>36</b>
COMS 114. Public Speaking.	3	<b>Required Courses</b>	<b>36</b>
COMS 250. Interpersonal Communication.	3	COMS 225. Introduction to Public Relations.	3
COMS 231. Research Methods.	3	COMS 235. Writing for Public Relations.	3
COMS 240. Teamwork.	3	COMS 231. Communication Research.	3
COMS 332. Argumentation and Advocacy.	3	COMS 240. Teamwork.	3
COMS 333. Persuasion.	3	COMS 314. Organizational Communication.	3
COMS 440. Listening and Nonverbal Communication.	3	COMS 408. Public Relations Management.	3
COMS 451. Intercultural and International Communication.	3	COMS 411. Public Relations Media and Campaigns.	3
<b>Choose three of the following:</b>	<b>9</b>	COMS 416. Business and Professional Communication.	3
COMS 314. Organizational Communication.	3	COMS 499. Communication Internship.*	3
COMS 413. Political Communication.	3	<b>Electives</b>	<b>9</b>
COMS 414. Critical Analysis of Public Discourse.	3	*Students wishing to complete an internship must have a 2.0 GPA in the major and must apply and interview for the privilege of participating in an internship experience.	
COMS 415. Communication Training and Development.	3	No more than 6 hours of internship credit may be used to meet requirements for the major.	
COMS 416. Business and Professional Communication.	3	Suggested electives include: COMS 333, Persuasion; COMS 173, Introduction to Advertising and IMC; COMS 273, Advertising Account Planning; COMS 226, Digital Imaging; COMS 430, Crisis Management and Communication.	
COMS 433. Communication and Social Change.	3		
COMS 439. Communication and Leadership.	3		
COMS 457. Diversity in Communication.	3		
COMS 459. Communication in Conflict Management.	3		
COMS 465. Communication and Health Care.	3		
Three Hours of Electives in COMS	3		

Suggested electives include: COMS 250, Interpersonal Communication; COMS 327, Politics and Media; COMS 413, Political Communication; COMS 415, Communication Training and Development; COMS 430, Crisis Management and Communication; COMS 457, Diversity in Communication; COMS 465, Communication and Health Care.

## **PUBLIC RELATIONS**

The concentration in Public Relations prepares students for positions as professional communicators by providing a combination of technical communication skills and theoretic knowledge necessary to make them competitive for entry-level public relations positions.

## **COMMUNICATION MINOR**

The minor in Communication consists of 18 semester hours in COMS courses, including COMS 114 and 15 additional hours of COMS courses.

## **PUBLIC RELATIONS MINOR**

Public relations specialists and managers prepare messages and develop communication strategies for communication with organizational stakeholders. The minor in Public Relations consists of 15 hours of required coursework and one 3 hour elective course in the School of Communication. Prerequisites or permission of instructor may be required for some courses. Declared minors may obtain permission through their School of Communication advisor.

## Required Courses

COMS 225. Introduction to Public Relations. 3  
COMS 230. Communication Theory. 3  
COMS 314. Organizational Communication. 3  
COMS 408. Public Relations Management. 3  
COMS 430. Crisis Communication. 3  
Students must complete one 3 credit hour elective course chosen from COMS 173, COMS 250, COMS 240 or COMS 333.

## INTERNSHIPS

Internships are available at approved agencies for qualified students. Students work under departmental supervision in private corporations, public organizations, advertising and public relations agencies, lobbying groups, and other organizations that will provide a suitable environment for learning. To qualify for an internship, a student must be a major in Communication and must be in good academic standing with 75 hours of credit completed. Communication majors have interned at Burson-Marsteller Public Relations, Frankfurt, Germany; Edelman Public Relations, Washington, D.C.; Gray and Rice Public Relations, Boston, Massachusetts; Stanton Communications, Washington, D.C.; United Way, Roanoke, Virginia; Pulaski Rangers Minor League Baseball, Pulaski, Virginia; Police Department, Roanoke, Virginia; Virginia Department of Motor Vehicles; Virginia Tourism; Spartanburg Regional Healthcare System, Spartanburg, South Carolina; Blue Ridge Hospice, Winchester, Virginia; The Children's Museum, Washington, D. C.; Carilion Health Care System; Crawford Long Medical Center; United Network for Organ Sharing, Richmond, Virginia; and the International Association of Travel Agencies.

## MEDIA STUDIES MAJOR

The Media Studies Major is designed for students with an interest in media or other related communication fields. Majors may earn either a Bachelor of Arts or a Bachelor of Science degree and, in addition to core courses, must select one of four concentrations: Advertising, Journalism, Production Technology, or Web Design.

Students are encouraged to select one of the concentrations no later than the second semester of their sophomore year.

All majors in Media Studies must complete:

1) 43-45 hours of Core Curriculum requirements; 2) the 6 to 8-hour B.S. requirement or the 6 to 12-hour B.A. requirement; 3) 6 hours of the School of Communication Core Requirements and 36 hours of a concentration in Advertising, Journalism, or Production Technology, or 37 hours of a concentration in Web Design for a total of 42-43 hours in the School of Communication; and 4) elective courses for a total of 120 hours. Students are encouraged to take 300-level and above courses for their electives. A minor is strongly recommended.

### **Core Curriculum Requirements 43-45 (see p. 71)**

In College Core B, all majors in programs in the College of Humanities and Behavioral Sciences are required to pass a second course in Social and Behavioral Sciences; i.e., CHBS majors cannot fulfill College Core B requirements with a Health and Wellness course.

## B.A./B.S. REQUIREMENTS

### **B.A. Requirements 6-12**

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 77 of this catalog.

### **B.S. Requirements 6-8**

Working closely with their advisors, students will understand the Bachelor of Science degree requires six to eight semester hours (in addition to the Core Curriculum requirements) selected from any of the following: mathematical science, natural and physical sciences, social and behavioral sciences, in any combination.

## CONCENTRATIONS

### **ADVERTISING CONCENTRATION**

The Advertising Concentration prepares students for positions in advertising by

providing both theoretical and aesthetic elements as well as skills in the production of advertisements in a variety of media.

**Total required hours for the concentration 36**

**Required Courses 30**

COMS 173. Introduction to Advertising and IMC.	3
COMS 223. Advertising Copywriting.	3
COMS 226. Digital Imaging.	3
COMS 231. Research Methods in Communication.	3
COMS 273. Advertising Account Planning.	3
COMS 373. Advertising Media Planning.	3
COMS 473. Advertising Production.	3
COMS 400. Media Law and Ethics.	3
Internship/Advertising Campaigns.	6
COMS 483. Advertising Campaigns.	3
COMS 499 or 483. Internship or Advertising Campaigns.	3

All Advertising students must earn at least three hours of COMS 483: Advertising Campaigns. In addition, they must earn another three hours in an internship and/or a second Advertising Campaigns course.

Choose two of the following	6
COMS 300. Media History.	3
COMS 335. Media and Society.	3
COMS 407. Science and Environmental Writing.	3
COMS 434. Media Literacy.	3
COMS 444. Media Management.	3
COMS 451. Intercultural and International Communication.	3

Recommended Courses Outside Major:  
 ART 250, 280, 281, 302, 350, 370, 480, 483  
 COMS 225, 333, 408, 411, 433  
 ENGL 306, 307, 309, 406, 407, 409  
 MKTG 340, 341, 343, 442, 452  
 PSYC 282, 343, 361, 377

**JOURNALISM CONCENTRATION**

The Journalism Concentration prepares students for careers in researching, writing,

preparing and disseminating public information though conventional and digitally-transmitted media, including newspapers, magazines, the Internet, radio, television, and cable.

**Total required hours for the concentration 36**

**Required Courses 30**

COMS 104. Basic News Writing.	3
COMS 204. News Reporting.	3
COMS 226. Digital Imaging.	3
COMS 146. Media Performance.	
or	
COMS 236. Print Production.	3
COMS 304. Electronic News Gathering.	3
COMS 326. Web Production.	3
COMS 400. Media Law and Ethics.	3
COMS 404. Specialized Journalism	3
COMS 481. Journalism Portfolio.	3
COMS Elective	3

Choose two of the following	6
COMS 300. Media History	3
COMS 335. Media and Society.	3
COMS 407. Science and Environmental Writing.	3
COMS 434. Media Literacy.	3
COMS 444. Media Management.	3
COMS 451. Intercultural and International Communication.	3

**Recommended Courses Outside Major**

Some of which may satisfy Core Curriculum requirements:

CRJU 100, 233, 235, 241, 315, 320, 360  
 ECON 101, 105, 106  
 ENGL 306, 307, 406, 407  
 GEOG 100, 103, 241, 322  
 HIST 316, 355, 364

**PRODUCTION TECHNOLOGY CONCENTRATION**

The Production Technology Concentration prepares students for positions in creative production in corporate, industrial and professional environments, utilizing the Web, multimedia, radio, television, and field production.

<b>Total required hours for the concentration</b>	<b>36</b>	COMS 400. Media Law and Ethics.	3
		COMS 427. Advanced Web and Multimedia Production.	3
<b>Required courses</b>	<b>30</b>	COMS 484. Web Design Portfolio.	3
COMS 146. Media Performance.	3	COMS Elective*	3
COMS 226. Digital Imaging.	3		
COMS 246. Basic Audio Production.	3	Choose two of the following	6
COMS 247. Script Writing.	3	COMS 300. Media History.	3
COMS 346. Electronic Field Production.	3	COMS 335. Media and Society.	3
COMS 347. Video Editing and Effects.	3	COMS 407. Science and Environmental Writing.	3
COMS 400. Media Law and Ethics.	3	COMS 434. Media Literacy.	3
COMS 446. TV Studio Production.	3	COMS 444. Media Management.	3
COMS 482. Production Technology Portfolio.	3	COMS 451. Intercultural and International Communication.	3
COMS Elective	3		
Choose two of the following	6		
COMS 300. Media History.	3		
COMS 335. Media and Society.	3		
COMS 407. Science and Environmental Writing.	3		
COMS 434. Media Literacy.	3		
COMS 444. Media Management.	3		
COMS 451. Intercultural and International Communication.	3		

\*Suggested electives include: COMS 346, Electronic Field Production; COMS 347, Video Editing and Effects; COMS 445, Advanced Audio Production, COMS 446, TV Studio Production. Web design students may earn additional hours of elective credit towards the degree through additional practicum hours (maximum of six hours after taking the three required credit hours) or through an internship (1-6 credit hours).

### Recommended Courses Outside Major

Some of which may satisfy Core Curriculum requirements:

ART 250, 280, 281, 302, 350, 360, 370, 380, 480, 483

ENGL 306, 307, 406, 407

MUSC 104, 127, 227, 308, 373

THEA 101, 102, 103, 180, 236, 350, 480, 482.

### Recommended Courses Outside Major:

ITEC 198, 202, 220, 325, 340

ENGL 306, 406, 407

GEOS 425

## WEB DESIGN CONCENTRATION

The Web Design Concentration prepares students to pursue careers involving the creation of news, information, entertainment, and other content for the Web and related interactive media.

**Total required hours for the concentration** 37

**Required courses** 31

COMS 104. Basic News Writing. 3

ITEC 110. Principles of Information Technology. 3

ITEC 120. Principles of Computer Science. 4

ITEC 225. Web Programming I. 3

COMS 226. Digital Imaging. 3

COMS 326. Web Production. 3

## MINORS

### MEDIA STUDIES MINOR

The minor in Media Studies consists of 18 semester hours and includes the following nine semester hours of core courses:

COMS 130. Introduction to Media Studies. 3

COMS 335. Media and Society. 3

COMS 400. Media Law and Ethics. 3

The remaining nine semester hours may be chosen from any other COMS courses offered. 9

## CINEMATIC ARTS INTERDISCIPLINARY MINOR

Offered by the department of Theatre and Cinema and the School of Communication, the interdisciplinary minor in Cinematic Arts consists of 18 semester hours including the following:

<b>Required Cinematic Arts Core</b>	<b>12</b>
THEA 180. Introduction to World Cinema.	3
THEA 280. Foundations of Cinema Aesthetics.	3
COMS 335. Media and Society.	3
THEA 480. Film Theory and Criticism.	3
Electives (Choose two)*	6
FREN 320. Topics in French Cinema.	3
COMS 247. Script Writing.	3
THEA 370. Playwriting.	3
THEA 380. Documentary/Non-Fiction Film.	3
COMS 434. Media Literacy.	3
COMS 451. Intercultural/International Communication.	3
COMS 452. International Film and Electronic Media.	3
SOCY 471. Society and Film.	3
THEA 481. Screenwriting.	3

Additional Special Topics course(s) may be chosen in consultation with the director(s) of the Cinematic Arts program.

\*All students minoring in Cinematic Arts must select six additional credit hours of course work from the above list of electives. The course selections must be approved by the director(s) of the Cinematic Arts minor prior to registration. Some courses may have prerequisites or require permission of the instructor before registration. Students declaring Cinematic Arts as a minor will be exempt from any prerequisites for Theatre and Media Studies courses.

## WEB DESIGN MINOR

The minor in Web Design consists of 19 semester hours in the following courses:

ITEC 110. Principles of Information Technology.	3
ITEC 120. Principles of Computer Science.	4
COMS 226. Digital Imaging.	3
COMS 326. Web Production.	3
COMS 400. Media Law and Ethics.	3
COMS 427. Advanced Web Production.	3

Also recommended for students who are not Computer Science majors:

ITEC 225. Web Programming I	3
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## MASTER OF SCIENCE IN CORPORATE AND PROFESSIONAL COMMUNICATION

The Master of Science degree in Corporate and Professional Communication is an applied degree designed to prepare students for a variety of careers in the public and private sector. Students will be prepared to seek careers as communication professionals in human services and in management positions, as public relations specialists, and as training/development coordinators. Graduates of our program demonstrate the broad range of career possibilities. For example, our graduates currently hold positions in fields as diverse as health care, public relations, computer software, media, higher education, non-profit services, and government. Additionally, students are prepared to pursue doctoral degrees. The degree provides a foundation of course work in both internal and external organizational communication and also allows students to focus their studies in their specific areas of interest. Please consult the *Radford University Graduate Catalog* for details.

## ACCELERATED MASTER'S PROGRAM

The accelerated bachelor's/master's degree program in Corporate and Professional Communication provides an opportunity for exceptional undergraduate students at Radford

University to complete the requirements for both the baccalaureate and master's degrees at an accelerated pace. Students accepted for the bachelor's/master's accelerated programs may take up to 9 hours of graduate credits and these may count toward both the bachelor's and master's degrees. Courses taken at the 400-level may not be repeated at the 500-level for undergraduate/graduate credit. To be eligible for participation in the accelerated degree program, students must have completed a minimum of sixty (60)

and a maximum of ninety-six (96) credit hours in their undergraduate programs. Transfer students must have completed a minimum of two semesters as a full-time student at Radford University, a minimum of 24 hours. Students must have a minimum-accumulated grade point average of 3.00. Students who meet the eligibility requirements described above should set up a meeting with the Graduate Program Coordinator to review their application.

# COLLEGE OF SCIENCE AND TECHNOLOGY

**J. Orion Rogers, Dean**  
Davis 127, (540) 831-5958  
[www.radford.edu/csatsat](http://www.radford.edu/csatsat)

**Arthur E. Carter, Associate Dean and  
Chairperson of Information  
Technology Department**  
Davis 008, (540) 831-5238

**Susan Underwood, Advising Coordinator**  
Stuart Hall 163, (540) 831-5601

## MISSION

The College of Science and Technology prepares students with skills and expertise essential to the Commonwealth of Virginia and the nation. The college emphasizes the theory and applications of science, mathematics, and technology. The college develops students' creative and critical thinking skills and teaches students to analyze problems and implement solutions to a vast array of challenges in our local, national and global communities. Students will be prepared to bring creative and socially responsible innovations to the workplace and to society.

## UNDERGRADUATE DEGREES

Students in the college earn a bachelor's degree in:

Anthropological Sciences with a concentration in Forensic Anthropology

Biology with concentrations in Molecular Biology, Environmental Biology, General Biology, Pre-Health and Medical Technology

Chemistry with concentrations in Professional Chemist, Pre-Health Professional, Biochemistry and Forensics

Computer Science and Technology with concentrations in Computer Science, Database, Software Engineering and Networks

Geospatial Science with concentrations in Environmental and Geoinformatics

Geology with concentrations in General Geology, Engineering and Environmental Geosciences and Earth Sciences.

Information Science and Systems with concentrations in Information Systems and Web Development

Mathematics with concentrations in Applied Mathematics, Statistics, and Secondary Education

Physics with concentrations in Earth and Space Science and Physics Education or a major in Physics with no concentration

Students can also enroll in interdisciplinary concentrations outside the college, just as minors and concentrations in the Colleges of Science and Technology are available for majors of RU's other five colleges (Business and Economics, Education and Human Development, Humanities and Behavioral Sciences, Waldron College of Health Sciences and Visual and Performing Arts).

## GRADUATION REQUIREMENTS

Students must have a grade point average (GPA) of at least 2.0 in all courses taken at Radford to graduate with the Bachelor of Science or Bachelor of Arts degree. In addition, students must have at least a 2.0 GPA in all courses required by the major and all courses required by the concentration. For the purpose of computing the major GPA, please see the requirements specified by each major and concentration in their respective sections of this catalog.

## CORE CURRICULUM

The Core Curriculum program introduces students to the varied modes of inquiry in the arts, humanities, social sciences and natural sciences. The College offers a broad introduction to ethics, social

consequences, organizational impacts, public policy, and personal responses to issues in the sciences, mathematics and technology.

## BIOLOGY

**Joel B. Hagen, Chairperson**  
**Reed Hall 308, (540) 831-5146**  
<https://php.radford.edu/~biology/>

### UNDERGRADUATE PROGRAM

The Department of Biology provides students with the opportunity to select, in consultation with a faculty advisor, courses of study suitable for a wide variety of educational and career goals. There are also numerous opportunities for students to participate in undergraduate research with faculty in the department. The department offers a Bachelor of Science degree in Biology. Students in the Bachelor of Science program may prepare for state licensure to teach biology at the secondary level by completing courses in professional education in addition to Core Curriculum courses and requirements in their major. The department offers a departmental honors program. For specific requirements of this program, contact the department chairperson or the director of the Honors Academy.

### PREPROFESSIONAL DEGREE PROGRAMS

Students interested in a career in medicine, dentistry, pharmacy, physical therapy or veterinary medicine may obtain the Bachelor of Science degree. Students who plan to pursue graduate study in these areas are urged to work closely with the Pre-health Advisory Committee in choosing elective courses appropriate to their career objectives.

### TRANSFER PROGRAMS

Courses are available which meet the requirements for admission to schools of physical therapy, medical technology, and

other allied health sciences. Students interested in such programs should consult with an advisor in the Biology Department.

## B.S. DEGREE

### BIOLOGY PROGRAM

All requirements for a biology major are outlined below. All majors must complete the same Required Core courses in Biology, Chemistry and Statistics, and must also complete additional requirements and/or electives in one of four concentrations.

#### Core Curriculum Requirements (See p. 71.) 43-45

All Biology majors are required to take the following courses and are advised to take them as part of the Core Curriculum requirements:

CHEM 101. General Chemistry.	4
STAT 200. Introduction to Statistics.	3
MATH 137. College Algebra.	
or	
MATH 138. Precalculus Function Analysis.	
or	
MATH 151. Calculus and Analytic Geometry I.	
or	
MATH 152. Calculus and Analytic Geometry II.	3

#### Required Biology Courses 20\*

*BIOL 131. Ecology and Adaptation.	4
*BIOL 132. Biology of Cells and Microorganisms.	4
*BIOL 231. Genetics, Evolution and Development.	4
*BIOL 232. Organismal Biology.	4
Either	
BIOL 160. Introductory Seminar in Biology.	2
BIOL 460. Advanced Seminar in Biology.	2
Or	
2 semesters of BIOL 460 Advanced Seminar in Biology (2:2)	

Note: All freshman Biology majors must register for BIOL 160 in their first or second semester.

\*Declared biology majors must earn a grade of “C” or better in BIOL 131, 132, 231, or 232 before admission to biology electives requiring these courses as prerequisites.”

**Other Courses Required for the Major 22**

CHEM 101:102. General Chemistry.	4:4
CHEM 301:302. Organic Chemistry.	4:4
STAT 200. Introduction to Statistics.	3
Mathematics requirement.*	3

\*Biology majors must take MATH 137, MATH 138, MATH 151, or MATH 152, whichever they are qualified to enroll in. MATH 137, however, is not accepted for the Pre-Health Concentration. See below.

(Students concentrating in Medical Technology take a modification of the above requirements. See below.)

**Concentration 26-36**

All majors must choose one of the five concentrations described below and fulfill all additional requirements for their chosen concentration.

**B.S. REQUIREMENTS**

**B.S. Requirements 8**

All Biology majors are expected to complete CHEM 301:302 (8 hrs.) to fulfill their Bachelor of Science degree requirement.

**Electives**

Students should consult with their academic advisors in selecting elective courses to complete the 120 semester hours required for graduation.

**Total Credits Needed for Degree 120**

**CONCENTRATIONS**

**GENERAL BIOLOGY CONCENTRATION**

This concentration is appropriate for students desiring a broad foundation in biology, including those students planning to enter graduate school and those students planning to seek teacher licensure. Students planning to enter graduate school programs specifically in Molecular Biotechnology or Environmental Biology should consider those concentrations rather than the General Biology Concentration. Students planning to enter medical, dental, veterinary, or other health-related graduate programs should consider the Pre-Health Concentration.

**Electives 26-30**

Students must select either 26 credits of Biology courses or 22 credits of Biology courses and 8 hours of Physics courses. The additional Biology electives may be chosen from any of the Biology courses numbered 200 or higher. Students are advised to consider all the department’s electives and to choose those most appropriate to their goals.

**TEACHING LICENSURE**

A biology major in the General Biology Concentration seeking teacher licensure should contact the College of Education and Human Development for information concerning the necessary courses. Students not majoring in biology who desire an endorsement to teach biology in secondary schools must complete 32 semester hours of biology coursework, including BIOL 131:132:231:232. Preparation in chemistry, physics, and mathematics is also recommended. Students should contact the College of Education and Human Development to determine the most appropriate courses for this option.

## MOLECULAR BIOLOGY CONCENTRATION

Students electing the Molecular Biology concentration will learn how to study organisms and life processes at the molecular level. A concentration in Molecular Biology will prepare a student to answer questions about living organisms and living systems using a set of skills that focus on the molecules and molecular processes specific to living organisms. This concentration is recommended for students who are considering doing graduate research in almost any discipline in biology, students who are considering the medical profession, or students who are interested in pursuing careers in biological research.

<b>Required Courses</b>	<b>15</b>
BIOL 408 Principles of Microbiology	4
BIOL 450. Molecular Biology.	4
BIOL 471:472 (CHEM 471:472) Biochemistry.	4:3

### **Electives** **15-19**

Students must take either 15 credit hours from the following list or 11 credit hours from the list and 8 hours of Physics (PHYS 111: 112 or PHYS 221:222).

BIOL 301. Bioethics.	2
or	
PHIL 310. Professional Ethics.	3
BIOL 337. Immunology.	4
BIOL 383. Molecular Forensic Biology	4
BIOL 409 Virology	4
BIOL 419. Intro Molecular Bioinformatics	3
BIOL 430. Genes and Development.	4
BIOL 432. The Eukaryotic Cell	3
BIOL/CHEM 474 Biochemistry Laboratory	1
BIOL 491. Directed Study and Research	1-6
BIOL 492. Undergraduate Research.	1-6
BIOL 495. Internship in Biology.	1-6

To count towards the Concentration, BIOL 491 or 492 should be in a molecular or cellular area. Similarly, to count towards the concentration BIOL 495 must be an internship in the area of molecular or cellular biology or biotechnology. Note: A total of six credit hours of Biology

491/492/495 may be applied to the Biology major; any additional credit hours will apply as university electives.

## ENVIRONMENTAL BIOLOGY CONCENTRATION

This concentration is recommended for students specifically interested in a career in environmental biology or related fields. It would also be appropriate for students planning to enter graduate school and to specialize specifically in environmental biology or related fields.

### **Required Courses** **17-21**

BIOL 390. Conservation Biology.	3
GEOS 250. Introduction to GIS.	4
BIOL 392. Environmental Toxicology.	4
or	
CHEM 215. Environmental Chemistry.	3
BIOL 333. Population and Community Ecology.	4
or	
BIOL 476. Forest and Wetland Ecology.	4
BIOL 491 and/or 492 and/or 495 Environment Biology Research and/or Internship (3-6) in environmental biology or related areas.	

Interdisciplinary Environmental Issues: 3  
Students must take one (1) course from the following list.

GEOS 241. Environmental Regulation or	
ECON 375. Environmental Economics or	
GEOS 340. International Environmental Problems.	

(or alternate courses with approval of the Environmental Coordinator)

Note: GEOG 140 is a prerequisite for GEOS 241 and for GEOS 340. ECON 106 is a prerequisite for ECON 375

### **Electives** **11-12**

Students must take three (3) courses from the following list. Courses used to satisfy requirements above may not also be counted as electives.

BIOL 215. Plants and Society.	4	BIOL 310 and 311 Human Structure and Function I and II.	8
BIOL 216 General Zoology.	4	or	
BIOL 217 Flora of Virginia.	4	BIOL 351 Comparative Animal Physiology.	4
BIOL 333 Population and Community Ecology.	4		
BIOL 351 Comparative Physiology.	4	<b>Biochemistry Requirement</b>	<b>4</b>
BIOL 353. Comparative Behavior.	3	BIOL 471. Biochemistry.	4
BIOL 361. Parasitology.	4	BIOL 472 Biochemistry (highly recommended but not required)	3
BIOL 380 Ornithology.	4		
BIOL 392 Environmental Toxicology .	4	<b>Microscopic Biology Requirement</b>	<b>4</b>
BIOL 408 Principles of Microbiology.	4	Choose at least one of the following two options:	
BIOL 462 Invertebrate Zoology.	4	BIOL 408. Principles of Microbiology.	4
BIOL 464 Vertebrate Zoology.	4	or	
BIOL 476. Forest and Wetland Ecology.	4	BIOL 450. Molecular Biology.	4
CHEM 215 Environmental Chemistry.	3		
GEOS 335 Biogeography.	3		
GEOL 474 Hydrogeology.	4		
(or alternate courses with approval of the Environmental Coordinator)			

**Electives: At least 7**

Choose at least 7 hours from the options following:

NOTE: courses used to satisfy Pre-Health Concentration requirements above may not also be counted as electives.

BIOL 301. Bioethics	2
BIOL 310:311. Human Structure and Function I and II	8
BIOL 322. Human Anatomy and Physiology.	6
(Note: students may not receive credit for both BIOL 322 and 310:311)	
BIOL 337. Immunology.	4
BIOL 351. Comparative Animal Physiology.	4
BIOL 361. Parasitology.	4
BIOL 408. Principles of Microbiology	4
BIOL 409. Virology.	4
BIOL 419. Intro to Molecular Bioinformatics.	3
BIOL 432. The Eukaryotic Cell.	3
BIOL 430. Genes and Development.	4
BIOL 450. Molecular Biology.	4
BIOL 472. Biochemistry II.	4
BIOL 477. Neuroscience.	4
BIOL 491. Directed Study and Research.	1-6
BIOL 492. Undergraduate Research.	1-6

**PRE-HEALTH CONCENTRATION**

This concentration is rigorous and appropriate for students planning to enter graduate, medical, dental, veterinary, optometry, pharmacy, physician assistant or some other health-related school.

**Mathematics Requirement**

All Biology majors must take MATH 137, 138, 151, or 152, whichever they are qualified to enroll in. However, MATH 137 is not accepted for the Pre-Health Concentration. Students in this concentration should select one of the other courses; MATH 151 or 152 is highly recommended

**Required Courses for Concentration 20-24**

**Physics Requirement 8**

Choose one of the following two combinations:  
 PHYS 111:112. General Physics I and II 4:4  
 or  
 PHYS 221:222. Physics I and II (recommended) 4:4

**Physiology Requirement 4 - 8**

Choose one of the following options:  
 BIOL 322 Human Anatomy and Physiology. 6  
 or

Note: A maximum of six credit hours of Biology 491/492/495 may be applied to the Biology major; any additional credit hours will apply as university electives.

## MEDICAL TECHNOLOGY CONCENTRATION

### (CLINICAL LABORATORY SCIENCES) CONCENTRATION

Biology majors concentrating in Medical Technology take three years of academic courses at Radford University and spend their senior year (12 months) interning and studying in the clinical facilities of one of the hospitals affiliated with Radford University.

For entrance into the clinical year of study (BIOL 401, 402, 403) students must apply to the hospital. Because the number of clinical spaces in the hospitals is limited and the number of applicants is large, students should have a GPA of 2.5 or higher to be considered competitive for this clinical internship.

#### Core Curriculum Requirements (See p. 71.) 43-45

All Biology majors are required to take the following courses and are advised to take them as part of the Core Curriculum requirements:

CHEM 101. General Chemistry.	4
STAT 200. Introduction to Statistics.	3
MATH 137. College Algebra.	
or	
MATH 138. Precalculus Function Analysis.	
or	
MATH 151. Calculus and Analytic Geometry I.	
or	
MATH 152. Calculus and Analytic Geometry II.	3

**Biology Required Science Curriculum 36**  
Students in this concentration complete a modified version of the biology required curriculum.

BIOL 131. Ecology and Adaptation.	4
BIOL 132. Biology of Cells and Microorganisms.	4
BIOL 231. Genetics, Evolution and Development.	4
Either	
BIOL 160. Introductory Seminar in Biology.	2
Or	
BIOL 460. Advanced Seminar in Biology.	2

Note: All freshman Biology majors must register for BIOL 160 in their first or second semester.

CHEM 101:102. General Chemistry.	4:4
CHEM 301:302 Organic Chemistry.	4:4
STAT 200. Introduction to Statistics.	3
Mathematics requirement.*	3

\*Biology majors must take MATH 137, MATH 138, MATH 151, or MATH 152, whichever they are qualified to enroll in

<b>Required Courses for concentration</b>	<b>18</b>
BIOL 322. Human Anatomy and Physiology.6	
BIOL 334. Microbiology.	4
BIOL 337. Immunology.	4
BIOL 450. Molecular Biology.	4

<b>Clinical Courses</b>	<b>33</b>
BIOL 401, 402, 403. Medical Technology Internship	

Clinical Courses to be taken in hospital senior year and the preceding summer:

Blood Banking	
Hematology and Coagulation	
Chemistry (clinical)	
Serology	
Bacteriology	
Parasitology/Clinical Microscopy	

**Total Credits Needed for Degree 120**

**AFFILIATED CLINICAL HOSPITALS  
IN MEDICAL TECHNOLOGY,  
PROGRAM DIRECTORS AND  
ADJUNCT FACULTY**

**Augusta Medical Center School of Clinical  
Laboratory Science - Fishersville, VA**

Julie A. Plumbley, M.D, Medical Director  
Ellie Coggins, MLS (ASCP) MSHA,  
Program Director

Kathy Miller, CLS(NCA), MT(ASCP)BB,  
Clinical Coordinator

**Carilion Medical Center School of Clinical  
Laboratory Science-Roanoke, VA**

Laura Link, M.S. Ed., MT (ASCP), CHES,  
Program Director

Maribeth Greenway, M.Ed., MT(ASCP) SH,  
Educator

Melanie Minnix, B.S. MT (ASCP), Educator  
Kimberly White, MLS (ASCP), CM, Educator  
Janet Hiler Bowman, M.Ed., MT (ASCP), CLS  
(NCA), Advisory Board

Randall Vandevander, B.A., MT(ASCP),  
Advisory Board

**Advisory Board**

Robert White M. D., Advisory Board

**Inova-Fairfax Hospital School of Clinical  
Laboratory Science-Falls Church, VA**

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Amy Shoemaker, MBA, MT(ASCP), DLM,  
Program Director

Nancy Vandel, MPH MT(ASCP) SM,  
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**Rockingham Memorial Hospital School of  
Medical Technology - Harrisonburg, VA**

Warren D. Bannister, M.D., Medical Advisor  
Sue Lawton, MT (ASCP), M.A., M.S.,  
Program Director

Cyndee Lowe, MT(ASCP), B.S.,  
Education Coordinator

**ASSOCIATED CLINICAL HOSPITAL  
PROGRAMS IN MEDICAL  
TECHNOLOGY, MEDICAL ADVISOR  
AND ADJUNCT FACULTY**

**Wake Forest University Baptist Medical  
Center-Winston-Salem, NC**

Marcus B. Simpson, M. D., Program Advisor  
Beth Gaither, MBA, MT(ASCP)SM,  
Program Director

Judi Scaro, MT(ASCP)SC, Instructor

LuAnn Mascorro, MT(ASCP), SH, Instructor  
Bettina Turner, MT(ASCP), SBB, Instructor

**AFFILIATED COMMUNITY  
COLLEGES**

**Virginia Western Community College-  
Roanoke, VA**

Jeffery Gillette, Ph.D., Medical Technology  
Program Advisor

**ARTICULATION AGREEMENT  
BETWEEN RADFORD UNIVERSITY  
AND MEDICAL COLLEGE OF  
VIRGINIA**

The Department of Clinical Laboratory Sciences, School of Allied Health Professions, Medical College of Virginia Campus/Virginia Commonwealth University agrees to guarantee admission into the Master of Science program in clinical laboratory sciences for students with the following criteria: Baccalaureate degree in Medical Technology (Clinical Laboratory Sciences) Biology or Chemistry, minimum GPA 3.25 and a minimum science GPA of 3.0. Minimum TOEFL of 570 is required for students whose native language is not English.

**GRADUATION REQUIREMENTS**

To graduate with a major in biology a student must attain an overall major grade point average of 2.0 or higher. Major GPA is calculated by using BIOL 131, BIOL 132, BIOL 160 all

biology courses 200-level or higher, all courses outside of biology used as electives (including CHEM 471:472, Physics if used as an elective, Geography or Geology used as an environmental concentration elective), and any course used as an elective by academic petition.

## **BIOLOGY MINOR** (24 semester hours)

A student may earn a minor in biology by completing 24 semester hours selected by the student from the department offerings. Grade point average in the minor is calculated by using all biology courses and courses cross listed with biology courses.

## **HONORS PROGRAM IN BIOLOGY**

This department offers honors courses, honors contracts and BIOL 488. Final Honors Project. For a general description of the Honors Academy at Radford, see p. 80. For specific requirements, contact the Honors Academy or department chair.

## **CHEMISTRY**

**Joel B. Hagen, Chairperson**  
Reed Hall 308, (540) 831-5146

**Chemistry:** [www.radford.edu/~chem](http://www.radford.edu/~chem)

## **UNDERGRADUATE PROGRAM**

The Department of Chemistry offers a broad curriculum leading to a Bachelor of Science degree with Professional Chemist, Pre-Health Professional, Biochemistry and Forensics concentrations available. Depending upon the particular course of study taken, the students will be prepared for a career in industry, government, or education. A wide variety of career opportunities are available to persons trained in

chemistry. Chemists work in research, industrial production, quality control, sales, management, environmental control, safety engineering, science reporting, teaching, and many other areas. Training in chemistry is also a valuable background for such professions as medicine, pharmacy, dentistry, and environmental and patent law. Many students who enter medical and dental schools do their undergraduate work as chemistry majors. Chemistry majors are required to take courses in general, analytical, organic, biochemistry, and physical chemistry, as well as physics and calculus. Students are encouraged to take elective courses in advanced inorganic chemistry, advanced organic chemistry, polymer chemistry, and other related areas. Pre-medical and pre-dental students enrolled in the Pre-Health Professional Concentration take additional biology courses to prepare for these careers. Students may also pursue licensure to teach chemistry in the Bachelor of Science degree program.

## **COLLABORATIVE PROGRAMS IN ENGINEERING**

The Department of Chemistry at Radford University and the College of Engineering at Virginia Polytechnic Institute and State University (Virginia Tech) offers a joint program in chemistry and chemical engineering. This is a dual degree program in which the student will receive a B.S. in chemistry from Radford University and a B.S. in engineering from Virginia Tech. The approximate time required for a student to complete these programs is five years. During the first three years, the student completes the major requirements in chemistry, as well as most or all of the Core Curriculum requirements at Radford. Some introductory engineering courses should also be completed while the student is at Radford; some of these may be taken during the summer. The student then transfers to Virginia Tech and, in two additional years, completes the requirements for a degree in engineering. Participants in this program who have a grade point average of 3.0 or above are guaranteed admission to the College of Engineering at Virginia Tech. All degree require-

ments for both Radford University and Virginia Tech should be satisfied by the end of the fifth year. The student then receives a degree from each institution. The student should be prepared to take general chemistry (CHEM 101:102) and calculus (MATH 151:152) during the first year. In the second year, organic chemistry (CHEM 301:302), courses in analytical chemistry (CHEM 324, CHEM 424), the calculus-based physics sequence (PHYS 221:222), and additional calculus courses (MATH 251:252) should be completed. In the third year, the student takes physical chemistry (CHEM 401:402), additional mathematics courses, and two engineering courses (5 semester hours of credit) at Virginia Tech. Courses in Core Curriculum during these three years will be chosen in consultation with a faculty advisor. After transferring to Virginia Tech, the student will complete any remaining Core Curriculum requirements and the requirements for the chemical engineering degree. Further details about this program can be obtained by contacting the department chairperson.

## UNDERGRADUATE PROGRAM

A wide variety of career opportunities are available to persons trained in chemistry. Chemists work in research, industrial production, quality control, sales, management, environmental control, safety engineering, science reporting, teaching, and many other areas. Training in chemistry is also a valuable background for such professions as medicine, pharmacy, dentistry, and environmental and patent law. Many students who enter medical and dental schools do their undergraduate work as chemistry majors. Chemistry majors are required to take courses in general, analytical, organic, biochemistry, and physical chemistry, as well as physics and calculus. Students are encouraged to take elective courses in advanced inorganic chemistry, advanced organic chemistry, polymer chemistry, and other related areas.

Premedical and pre dental students majoring in chemistry should use their elective hours to take general biology and additional biology courses. Students may pursue licensure to teach chemistry in the Bachelor of Science degree program.

## B.S. DEGREE CHEMISTRY MAJOR

All requirements for chemistry majors are outlined below. All majors must take the same Required Core Courses and must complete coursework in one of four concentrations.

### Core Curriculum Requirements (See p. 71.) 43-45

All requirements for chemistry majors are outlined below. All majors must take the same Required Core Courses and must complete coursework in one of four concentrations.

### Core Curriculum Requirements (See p. 71.) 43-45

<b>Required Major Core Courses</b>	<b>35</b>
CHEM 101:102. General Chemistry.*	4:4
CHEM 216. Inorganic Chemistry.	3
CHEM 301:302. Organic Chemistry.	4:4
CHEM 324. Analytical Chemistry.	4
CHEM 401. Physical Chemistry.	4
CHEM 424. Instrumental Analysis.	4
CHEM 471. Biochemistry.	4

\* CHEM 101 and 102 have been approved for Core Curriculum credit in Natural Sciences.

<b>Related Requirements</b>	<b>6</b>
MATH 151:152. Calculus and Analytic Geometry I and II.*	3:3

\*MATH 151:152 have been approved for Core Curriculum credit in Mathematical Sciences.

## B.S. REQUIREMENTS

<b>B.S. (Non Teaching) Requirements</b>	<b>8</b>
Bachelor of Science degree without a professional licensure in secondary education requires the following:	
PHYS 111:112. General Physics.	4:4
or	
PHYS 221:222. Physics.	4:4

## PROFESSIONAL CHEMIST CONCENTRATION

This concentration is a rigorous four-year program that provides a strong background in chemistry for those students who plan to become professional chemists. It provides an excellent foundation for graduate study in chemistry or related fields and will prepare students for careers in industrial, academic or governmental settings.

<b>Other Required Courses</b>	<b>20-22</b>
CHEM 402. Physical Chemistry.	4
CHEM 481:482. Undergraduate Research.*	3
Two additional 200- or higher level course with CHEM prefix.	6-8
BIOL 132. Biology of Cells and Microorganisms.	4
MATH 251. Calculus and Analytic Geometry III.	3

\*CHEM 474 (Biochemistry Laboratory) may substitute for one hour of undergraduate research.

## PRE-HEALTH PROFESSIONAL CONCENTRATION

This concentration is a rigorous four year program recommended for students planning a career in pharmacy, medicine, dentistry or veterinary medicine. The first three years are designed to optimally prepare students for the pre-entrance aptitude examination (PCAT, MCAT, DAT or GRE).

<b>Other Required Courses</b>	<b>21-22</b>
BIOL 132. Biology of Cells and Microorganisms.	4
BIOL 231. Genetics, Evolution, and Development.	4
BIOL 322. Human Anatomy and Physiology.	6
Two additional 300- or higher level course with BIOL prefix.	7-8

## BIOCHEMISTRY CONCENTRATION

This concentration is a rigorous four-year program recommended for students interested in a career in biochemistry. It provides a comprehensive foundation for graduate study in biochemistry, pharmacology, or related fields and prepares students for careers in industrial, governmental, or academic settings.

<b>Other Required Courses</b>	
CHEM 402. Physical Chemistry.	4
CHEM 472. Biochemistry.	3
CHEM 474. Biochemistry Laboratory	1
BIOL 132. Biology of Cells and Microorganisms.	4
BIOL 231. Genetics, Evolution, and Development.	4
4 semester hours to be chosen from among: BIOL 334, BIOL 419, BIOL 430, BIOL 432, BIOL 450	4

## FORENSICS CONCENTRATION

This concentration is a rigorous four year program recommended for students planning a career in forensic science. It provides a comprehensive foundation for graduate study in forensic chemistry, forensic science, or analytical chemistry and prepares students for careers in industrial, governmental, or academic settings.

<b>Other Required Courses</b>	<b>22</b>
CHEM 465. Forensic Chemistry	4
CHEM 481 or 482. Undergraduate research.	1
BIOL 132. Biology of Cells and Microorganisms.	4



## **CHEMISTRY MINOR** (20 semester hours)

A chemistry minor requires 20 hours of chemistry, 12 or more of which must be from courses numbered 200 or higher.

## **PREPHARMACY PROGRAM**

Students who wish to enter a pharmacy school should register as chemistry majors; a designated faculty member from the department will be assigned to advise prepharmacy students. For admission to the School of Pharmacy at the Medical College of Virginia, students must have completed two years of college work that includes the following courses: one year each of general biology, general chemistry, organic chemistry, general physics, and English; six semester hours of mathematics including at least three semester hours of calculus; three semester hours of public speaking; three semester hours of ethics/logic; six semester hours of social sciences; twelve semester hours of electives. Other pharmacy schools may have somewhat different entrance requirements and it is the responsibility of the student to fulfill these requirements.

## **INFORMATION TECHNOLOGY**

**Arthur Carter, Chairperson**  
**Davis Hall 008, (540) 831-5381**  
**[www.it.radford.edu](http://www.it.radford.edu)**

## **UNDERGRADUATE PROGRAM**

The Computer Science and Technology and Information Science and Systems programs prepare students for a variety of rewarding careers in industry and government and for graduate study. The Computer Science Concentration of the Computer Science and Technology program and the Information

Science and Systems Program are accredited by the Accreditation Board for Engineering and Technology, Inc., 111 Market Place, Suite 1050, Baltimore, MD 21202-4012. Such accreditation is based on an evaluation of the department's faculty, curriculum, computing resources, students and institutional support. There are seven laboratories available for students within the department with hardware including Oracle Database, Cisco networking equipment, PC's and Macintosh computers, and software platforms ranging from Linux to Windows to Mac OS. Each of the department's laboratories is connected to the campus network and to the Internet. Students in the department are not required to purchase their own computers; instead, all courses can be completed using equipment in the department's laboratories. The department requires its students to use multiple platforms (Windows and Linux) and to learn multiple languages (including Java). Many students go on to take coursework in other languages (e.g. C++, Perl, Ada, PHP) and specialized platforms appropriate to their concentration. In this way, graduates of the program have a diverse background and are better able to handle the rapid pace of change in industry.

### **Department Core Requirements**

All students in the department are required to complete the following core requirements:

Information Technology	18
ITEC 110. Principles of Information Technology.*	3
ITEC 120. Principles of Computer Science I.*	4
ITEC 220. Principles of Computer Science II.*	4
ITEC 225. Web Programming.*	3
ITEC 345. Introduction to Information Security.*	3
ITEC 490. Senior Seminar.	1

\* a grade of "C" or better is required in these courses for all department majors.

# BACHELOR OF SCIENCE IN COMPUTER SCIENCE AND TECHNOLOGY

Students seeking the Bachelor of Science in Computer Science and Technology must complete the department core requirements listed above and the degree core listed below. Students must choose at least one of the four concentrations within the major: Computer Science, Database, Software Engineering, and Networks. The Computer Science concentration prepares students for a variety of technology careers or graduate study by building a broad foundation in the computer science core and developing additional depth in two elective areas. The Database, Software Engineering, and Networks concentrations provide graduates with a breadth of software development experience and a depth of knowledge in a particular application area.

## Core Curriculum Requirements (See p. 71.)

Some major requirements meet Core Curriculum requirements and students are advised to take them as part of their Core Curriculum requirements. All students in the Information Technology Department are required to take a Natural Science course to fulfill the College Core B Mathematical or Natural Science requirement.

## Department Core Requirements 18 (See p. 180.)

<b>Major Core Requirements</b>	<b>12</b>
Information Technology	6
ITEC 324. Principles of Computer Science III.	3
ITEC 122. Discrete Mathematics.	3
Mathematics	3
*MATH 151. Calculus and Analytical Geometry.	3
*This course has been approved for Core Curriculum credit in Mathematical Sciences.	

## Concentration Requirements

Students must choose one of four concentrations from the following list: Computer Science, Database, Software Engineering, and Networks. See below for specific concentration requirements.

## B.S. REQUIREMENTS 6-8

Student concentrating in Computer Science must choose two courses from the following list: ASTR 111:112; any Biology (except BIOL 301:302); any Chemistry; any Geology (except GEOL 110, 205); any Physics (except PHYS 111:112 and PHYS 221:222 or PHYS 231); PHSC 301.

Students concentrating in Database, Software Engineering, or Networks must choose two courses from the following list: Any 300-level or above ITEC course (except ITEC 301, 304, and ITEC 400); MATH 152; any 200-level or above Math course; ASTR 111, ASTR 112, any Biology (except BIOL 301 and 302); any Chemistry; any Geology (except GEOL 110 and 205), any Physics, or PHSC 301.

## Electives

Students should consult with their academic advisors in selecting elective courses to complete the 120 semester hours required for graduation.

## Total Credit Hours Needed for Degree 120

## Major GPA Requirement

All majors require a minimum 2.0 GPA in the major in order to be eligible for graduation. The major GPA for all concentrations is calculated using all ITEC, MATH, and STAT courses applied toward the major, excluding courses used to fulfill the B.S. requirements. In addition, students in the computer science concentration must earn a "C" or better in all ITEC courses applied toward the major. (See graduation requirements for the Computer Science concentration" below).

## CONCENTRATIONS

### COMPUTER SCIENCE CONCENTRATION

In addition to the Core Curriculum, Department Core, Major Core, B.S. requirements, and electives, students in the Computer Science Concentration are required to complete the following:

<b>Information Technology</b>	<b>24</b>
ITEC 320. Procedural Analysis and Design.	3
ITEC 352. Computer Organization.	3
ITEC 360. Data Structures and Analysis of Algorithms.	3
ITEC 370. Software Engineering I.	3
ITEC 371. Operating Systems.	3
ITEC 380. Organization of Programming Languages.	3
ITEC 420. Computability Theory and Formal Languages.	3

One course selected from the following:

ITEC 315. Graphical User Interface Design and Implementation.	3
ITEC 340. Database I.	3
ITEC 350. Introduction to Computer Networking.	3
ITEC 410. Modeling and Simulation.	3
ITEC 430. Computer Graphics.	3
ITEC 460. Translator Design and Construction.	3
ITEC 480. Artificial Intelligence.	3
Physics	8
*PHYS 221. Physics.	4
*PHYS 222. Physics.	4

\*This course has been approved for Core Curriculum credit in Natural Sciences.

Mathematics	9
MATH 152. Calculus and Analytical Geometry II.	3
MATH 251. Calculus and Analytical Geometry III.	3
STAT 301 Probability and Statistics I.	3

## GRADUATION REQUIREMENTS

Each student majoring in the Computer Science Concentration of the Computer Science and Technology degree must take the Graduate Record Achievement Test in Computer Science or an equivalent exam as determined by the department during her or his last semester. Each student majoring in the Computer Science Concentration of the Computer Science and Technology degree must earn a grade of “C” or better in each information technology course required for the major. All majors require a minimum 2.0 GPA in the major in order to be eligible for graduation.

### DATABASE CONCENTRATION

In addition to the Core Curriculum, Department Core, Major Core, B.S. requirements, and electives, students in the Database concentration are required to complete the following:

<b>Information Technology</b>	<b>27</b>
ITEC 320. Procedural Analysis and Design.	3
ITEC 325. Web Programming II.	3
ITEC 340. Database I.	3
ITEC 441. Database II.	3
ITEC 442. Data Warehousing, Mining, and Reporting.	3
Plus 12 additional credit hours chosen from any 300 or 400-level ITEC courses (except ITEC 301, 304, 400, 493, or 498)	12

### SOFTWARE ENGINEERING CONCENTRATION

In addition to the Core Curriculum, Department Core, Major Core, B.S. requirements, and electives, students in the Software Engineering Concentration are required to complete the following:

<b>Information Technology</b>	<b>27</b>
ITEC 320. Procedural Analysis and Design.	3
ITEC 370. Software Engineering I.	3
ITEC 380. Organization of Programming Languages.	3
ITEC 471. Software Engineering II.	3
ITEC 472. Software Engineering III.	3
Plus 12 additional credit hours chosen from any 300 or 400-level ITEC courses (except ITEC 301, 304, 400, 493, or 498).	12

## NETWORKS CONCENTRATION

In addition to the Core Curriculum, Department Core, Major Core, B.S. requirements, and electives, students in the Networks Concentration are required to complete the following:

<b>Information Technology</b>	<b>27</b>
ITEC 310. Programming in C and Unix.	3
ITEC 340. Database I.	3
ITEC 350. Introduction to Computer Networking.	3
ITEC 352. Computer Organization.	3
ITEC 371. Operating Systems I.	3
ITEC 451. Network Design and Analysis.	3
ITEC 452. Distributed Computing.	3
Plus 6 additional credit hours chosen from any 300 or 400-level ITEC courses (except for ITEC 301, 304, 400, 493, or 498).	6
Mathematics	6
MATH 152. Calculus and Analytical Geometry II.	3
STAT 301. Probability and Statistics I.	3
or	
STAT 200. Introduction to Statistics.	3

## TEACHER LICENSURE

### COMPUTER SCIENCE TEACHING CERTIFICATION ADD-ON ENDORSEMENT

A student may pursue an add-on endorsement in computer science while pursuing another endorsement for licensure in a different area or after receiving initial licensure. The add-on endorsement may not be used for initial licensure.

The applicant seeking an add-on endorsement in computer science shall complete a minimum of 15 semester hours of course work according to the guidelines below. Courses may be counted toward multiple categories where appropriate. Each course applied to the endorsement must be passed with a grade of “C” or better. Computer Science: Minimum of 6 hours. Both ITEC 120 and ITEC 220. Data Structures and/or Algorithms Analysis: Minimum of 3 hours. Either ITEC 220 or ITEC 360. Introduction to Computer Systems: Minimum of 3 hours. Either ITEC 100 or ITEC 352. Application of Computer Technology: Minimum of 3 hours. Choose from the following: ITEC 100, ITEC 201, ITEC 122, ITEC 198, ITEC 225, ITEC 324, ITEC 340, ITEC 350, ITEC 370, DSNI 320, DSNI 420, GEOG 360, GEOG 420, GEOL 405, COMS 328, COMS 426, MUSC 127, MUSC 128, MUSC 227, MUSC 428, MATH 330, STAT 430.

## BACHELOR OF SCIENCE IN INFORMATION SCIENCE AND SYSTEMS

Students seeking the Bachelor of Science in Information Science and Systems must complete the department core requirements listed above. Students must choose from at least one of the concentrations within the major: Information Systems or Web Development. The Information Systems concentration is designed to provide graduates with a background in both information technology and business so that graduates can pursue a variety of career opportunities applying, managing, and supporting information technology within profit and non-profit organizations. The Web Development concentration prepares students in all aspects of website design, development, integration, security, and maintenance.

### Core Curriculum Requirements (See p. 71.)

Some major requirements meet Core Curriculum requirements and students are advised to take them as part of their Core Curriculum

requirements. All students in the Information Technology Department are required to take a Natural Science course to fulfill the College Core B Mathematical or Natural Science requirement.

**Department Core Requirements** 18  
(See p. 180.)

**Major Core Requirements** 15

**Information Technology:**

ITEC 340. Database I. 3

ITEC 370. Software Engineering I. 3

**Business:**

ACTG 211. Fundamentals of Financial Accounting. 3

MKTG 340. Principles of Marketing. 3

**Core Curriculum Courses:**

\*ECON 106. Principles of Microeconomics. 3

\* This course has been approved for Core Curriculum credit in Social and Behavioral Sciences or U.S. Perspectives.

Students must choose one of two concentrations from the following list: Information Systems and Web Development. See below for specific concentration requirements.

**B.S. Requirement** 6-7

Three hours chosen from the following:

ITEC 324 or any ITEC 300-level or above ITEC course (except ITEC 301, ITEC 304 and ITEC 400). The remaining hours chosen from the following: ITEC 324, any 300-level or above ITEC course (except ITEC 301, 304, and ITEC 400), MATH 152, any 200-level or above Math course, ASTR 111, ASTR 112, any Biology (except BIOL 301 and 302), any Chemistry; any Geology (except GEOL 110 and 205), any Physics, or PHSC 301.

**Electives**

Students should consult with their academic advisors in selecting elective courses to complete the 120 semester hours required for graduation.

**Total Credit Hours Needed for Degree** 120

**MAJOR GPA REQUIREMENT**

All majors require a minimum 2.0 GPA in the major in order to be eligible for graduation. The major GPA for all concentrations is calculated using all MATH, STAT, ITEC, MGNT, FINC, BLAW, MKTG, ACTG, and ECON courses applied toward the major, excluding courses used to fulfill the B.S. requirements. Many courses require a “C” or better in the prerequisite. (See “Course Descriptions” section in this catalog).

**CONCENTRATIONS**

**INFORMATION SYSTEMS CONCENTRATION**

In addition to the Core Curriculum, Department Core, Major Core, B.S. requirements, and electives, students in the Information Systems Concentration are required to complete the following:

**General Requirements** 9

\*MATH 126. Business Calculus.

or

\*MATH 151. Calculus and Analytical Geometry. 3

STAT 200. Introduction to Statistics.

or

STAT 301. Probability and Statistics I. 3

\*\*ECON 105. Principles of Macroeconomics. 3

\*This course has been approved for Core Curriculum credit in Mathematical Sciences.

\*\*This course has been approved for Core Curriculum credit in Social and Behavioral Sciences or U.S. Perspectives.

**Information Technology** 9

ITEC 281. Data Analysis and Management with Spreadsheets. 3

ITEC 485. Decision Support Systems. 3

ITEC 495. Information Systems Capstone. Business 18

BLAW 203. Legal Environment of Business. 3

MGNT 322. Organizational Behavior. 3

MGNT 333. Statistical Decision Support. 3

ACTG 212. Fundamentals of Managerial Accounting.	3
FINC 331. Introduction to Business Finance.	3
MGNT 357. Operations Management.	3

## WEB DEVELOPMENT CONCENTRATION

In addition to the Core Curriculum, Department Core, Major Core, B.S. requirements, and electives, students in the Web Development Concentration are required to complete the following:

### General Requirements 6

*MATH 126. Business Calculus.	
or	
*MATH 151. Calculus and Analytical Geometry.	3
STAT 200. Introduction to Statistics.	
or	
STAT 301. Probability and Statistics I.	3
*This course has been approved for Core Curriculum credit in Mathematical Sciences.	
Information Technology	12
ITEC 315. Graphic User Interface Design and Implementation.	3
ITEC 325. Web Programming II.	3
ITEC 350. Introduction to Computer Networking.	3
ITEC 425. Advanced Web Development. Business	3
MKTG 342. Internet Marketing.	3
Media Studies	12
COMS 226. Digital Imaging.	3
COMS 326. Web Production.	3
COMS 400. Media Law and Ethics.	3
COMS 427. Advanced Web and Multimedia Production.	3

## MINORS

The following Department of Information Technology minors are available to students not already pursuing a Bachelor of Science in Computer Science and Technology or a Bachelor of Science in Information Science and Systems. Fifty percent of the hours required for the

minor must be completed at Radford University. A student must have a 2.0 or higher GPA in the minor. A student may not receive a minor in both computer science and information technology.

## COMPUTER SCIENCE MINOR 17

Requirements for a computer science minor are ITEC 110, ITEC 120, ITEC 220, ITEC 225, and at least three additional hours chosen from ITEC 122 or any 200-level or above ITEC course except for ITEC 202 and ITEC 400. Each course applied to the minor must be passed with a grade of "C" or better. The minor GPA will be calculated by using the 17 best hours applied toward the minor.

## INFORMATION SYSTEMS MINOR 15

The IS minor presents a framework which specifies an appropriate set of information technology classes for students interested in a business-oriented I.T. minor that will enhance their resume and provide knowledge and skills useful in a business context.

The minor is 15 hours:

### I.T. Foundations 3

The foundation course will provide an introduction to fundamental concepts as well as an overview of the Information Technology field. It provides a framework on which to build depth in other courses.

ITEC 100. Introduction to Information Technology.	3
or	
ITEC 110. Principles of Information Technology.	3

### **Introduction to Programming. 3**

An understanding and appreciation for programming is essential to the information systems field. Although most IS professionals are not programmers, all will interact with programmers, be involved with software engineering projects, and have opportunities to use simple programs to move data, and automate tasks, including tasks within spreadsheet and other office productivity tools.

ITEC 109 – Introduction to Programming and Problem Solving.	3
or	
ITEC 120 – Principles of Computer Science I.	4

### **Data Management Core. 6**

Data Analysis and Data Management are at the heart of the IS profession. The two most important tools in that area are spreadsheets and database management systems. The two required core courses of the IS minor build practical and conceptual expertise with these two essential technologies.

ITEC 281. Data Management and Analysis with Spreadsheets	3
ITEC 304. Database from the Manager’s Perspective	3
I.T. Elective Hours	2-3

ITEC elective hours allow the student seeking a minor in Information Systems to explore an additional area that is of interest to them and/or that complements their major field of study. Students are encouraged to consult with a minor advisor when selecting an elective class or classes. Students may select any ITEC prefixed class however they may not count a second foundations course.

### **INFORMATION TECHNOLOGY MINOR 18**

The Information Technology minor consists of 18 credit hours of ITEC courses. Courses cross-listed as ITEC courses may be used to

count toward the minor. The minor GPA will be calculated by using the 18 best hours applied toward the minor.

### **UNDERGRADUATE CERTIFICATE IN INFORMATION SECURITY**

Students seeking the Information Security Certificate must have successfully completed Principles of Computer Science I (ITEC 120) with grade of “C” or better prior to being admitted. The certificate addresses issues across different aspects of computing, raises awareness of security risks, and improves the ability of our students to develop end-to-end security solutions. Students must complete the following three courses:

<b>Certificate Requirements</b>	<b>9</b>
ITEC 345. Introduction to Computer Security.	3
ITEC 445. Computer System and Database Security.	3
ITEC 455. Applied Cryptography and Network Security.	3

### **MATHEMATICS AND STATISTICS**

**M. Jill Stewart, Chairperson**  
**Walker Hall 244, (540) 831-5670**  
**[www.radford.edu/~math-web/](http://www.radford.edu/~math-web/)**

### **UNDERGRADUATE PROGRAM**

The Department of Mathematics and Statistics offers a broad curriculum leading to a Bachelor of Arts or Bachelor of Science degree.

Concentrations in Applied Mathematics, Statistics, and Secondary Education, as well as a collaborative program with Virginia Tech in engineering, are available. Depending upon the particular course of study taken, the student will be prepared for a career in industry, government, or education.

## B.A. OR B.S. DEGREE

### MATHEMATICS MAJOR

The major is available with a choice of three concentrations: Applied Mathematics, Statistics, and Secondary Education.

#### **Core Curriculum Requirements 43-45** (See p. 71.)

Three hours of mathematics courses required for the major may be included as part of the 43-45 hour Core Curriculum requirement.

#### **B.A. and B.S. Requirements**

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 80 of this catalog. B.S. requirements are listed with the respective concentrations.

#### **Required Courses 18**

All majors in mathematics must take: MATH 151:152. Calculus and Analytic Geometry I and II.	6
MATH 251:252. Calculus and Analytic Geometry III and IV.	6
MATH 260. Introductory Linear Algebra.	3
STAT 301. Probability and Statistics I.	3

A grade of at least a "C" is required in each course in the calculus sequence. Any departmental majors receiving credit for MATH 252 cannot subsequently receive credit for any 100-level mathematics course unless the course is required for their concentration.

### CONCENTRATIONS

#### **APPLIED MATHEMATICS CONCENTRATION 33 - 34**

MATH 280. Problem Solving.	3
MATH 346. Differential Equations.	3

MATH 430:431. Advanced Calculus.	6
MATH 434:435. Numerical Analysis I and II.	6
STAT 302. Probability and Statistics II.	3
ENGL 306. Professional Writing.	3
ITEC 109 Problem Solving and Programming	or
ITEC 120. Principles of Computer Science.	3-4

Electives: Six credit hours chosen from the following:

Any 300- or 400-level mathematics or statistics course, with the exception of MATH 312 and MATH 325; ITEC 122, any ITEC course numbered 200 or above with the exception of ITEC 202, ITEC 250 and ITEC 281. Any physics course numbered 300 or above, any chemistry course numbered 200 or above.

Students seeking a B.A. must take PHYS 221:222 in place of the electives requirement.

#### **B.S. Requirements 8**

PHYS 221:222. Physics	8
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#### **STATISTICS CONCENTRATION 24-25**

STAT 302. Probability and Statistics II.	3
STAT 420. Modern Regression Analysis.	3
STAT 421. Design of Experiments.	3
MATH 430:431. Advanced Calculus I and II.	6

Three additional hours chosen from among 300- or 400-level Statistics courses.	3
ITEC 109. Problem Solving and Programming	or
ITEC 120. Principles of Computer Science.	3-4
ENGL 306. Professional Writing.	3

## B.S. Requirements

To satisfy the B.S. requirement students must take at least six hours from the following courses: MATH 434:435, PHYS 221:222, PSYC 201:202, MGNT 333, ECON 421, any biology course, any chemistry course.

## SECONDARY EDUCATION CONCENTRATION

21

MATH 135. Fundamentals of Geometry.	3
MATH 142. Discrete Mathematics.	3
MATH 300. Mathematical Foundations.	3
MATH 321. History of Mathematics.	3
MATH 325. Special Methods Secondary Mathematics Education.	3
MATH 412. Theory of Numbers.	3
MATH 423. Abstract Algebra I.	3

There is no departmental B.S. requirement for this concentration. However, students must take appropriate courses in education, including HUMD 300, EDEF 320 and 'the block' (EDSP 404, EDRD 416, EDUC 440, EDET 445, and EDUC 441). Students seeking licensure to teach at VA schools must also take EDUC 442 and EDUC 452. Those who do not seek licensure must take STAT 302, MATH 346 and one additional course within the College of Science and Technology at the 300-level or higher.

## ELECTIVES

Students should consult with their academic advisors in selecting elective courses to complete the 120 semester hours required for graduation.

**Total Credits Needed for Degree** 120

## GRADUATION REQUIREMENTS

To graduate with a major in Mathematics, a student must have a grade point average of 2.0

6 or higher in all required MATH, STAT, ITEC, and PHYS courses for the Applied Mathematics Concentration; MATH, STAT and ITEC courses for the Statistics Concentration; MATH and STAT courses for Secondary Education.

## MATHEMATICS AND STATISTICS COLLABORATIVE PROGRAM IN ENGINEERING

The Department of Mathematics and Statistics at Radford University and the College of Engineering at Virginia Polytechnic Institute and State University (Virginia Tech) offer a joint program in mathematics and engineering. This is a dual degree program in which the student will receive a B.A. or B.S. in mathematics from Radford University and a B.S. in engineering from Virginia Tech. The approximate time required for a student to complete these programs is five years. During the first two to three years, the student completes the major requirements in mathematics, as well as most or all of the Core Curriculum requirements at Radford. Some introductory engineering courses should also be completed while the student is at Radford; these are typically taken during the summer. The student then transfers to Virginia Tech and, in two or three additional years, completes the requirements for a degree in engineering. Participants in this program who have a grade point average of 3.0 or above, who meet all normal transfer requirements of Virginia Tech, who have completed the equivalent of ENGE 1024 and 1104 or 1114 at Virginia Tech, and who are recommended for admission by the dual degree program advisor at Radford University will be assured admission to the College of Engineering at Virginia Tech. Once all degree requirements for both Radford University and Virginia Tech are satisfied, the student then receives a degree from each institution.

For the dual degree program in mathematics, the student should choose, early in the program, the intended engineering major at Virginia Tech. This choice will affect the curriculum that the student undertakes at Radford. All students in this program must be prepared to take MATH 151:152 during the first year and MATH 251:252 during the second year. The student

will also take MATH 260, MATH 346, ITEC 120, PHYS 221:222, Chemistry (CHEM 101 or 103), ENGL 101:102, and other Core Curriculum and upper-level courses during their second and, typically, third years in the program. These Core Curriculum and upper-level courses will be chosen, with the assistance of a faculty advisor, to fulfill the requirements of the major in mathematics (applied mathematics concentration), as well as to complement the student's intended engineering curriculum. The student will be encouraged to take an introduction to engineering course at Virginia Tech as early as the summer between the first and second years of the program. The remaining requirements of the mathematics major and of the chosen engineering major will then be completed after the student has transferred to Virginia Tech. Further details about this program can be obtained by contacting the department chairperson.

## MINORS

### MATHEMATICS MINOR

#### (18 semester hours)

MATH 151, MATH 152, MATH 251 and MATH 260 and at least two courses chosen from among MATH 252, MATH 300, MATH 321, MATH 346 any 400-level mathematics course or any 300 or 400-level statistics course.

### STATISTICS MINOR

#### (18 semester hours)

Eighteen semester hours are required in mathematics or statistics, including at least three semester hours in a calculus course (MATH 126 or 151). At least 12 of the 18 hours must be in statistics.

## SCHOOL OF ENVIRONMENTAL AND PHYSICAL SCIENCE

**Bernd H. Kuennecke, Interim Director**  
**Cook Hall 136, (540) 831-5558**

The School of Environmental and Physical Science (SEPS) provides students courses of study in Physics as well as the Anthropological Sci-

ences, Geospatial Sciences and Geology. A major theme across the disciplines is the application of biological, geological, geographical, and physical principles to the study of the physical and cultural environment and the solution of environmental problems. It also houses the Radford University Forensic Science Institute, which oversees the Interdisciplinary Minor in Forensic Science.

## UNDERGRADUATE CERTIFICATE IN SUSTAINABILITY AND ENVIRONMENTAL STUDIES

Applicants must be degree seeking students at Radford University in good standing and must successfully complete Introduction to Environmental Studies (GEOG 140) with a "C" or higher.

### Certificate Requirements 18-22

1) Introductory Class  
 GEOG 140. Introduction to Environmental Studies. 3

Students take four courses (12-15 credit hours) in Areas 2 through 4. At least one course must be taken in each of the three areas, and a second course must be taken in one of the three areas, in consultation with the advisor.

2) Physical Systems and the Environment. (choose one: 3 – 4 credits)  
 This area will introduce students to how the natural world works from the perspective of the natural sciences. Courses focus on earth systems and processes, ecology, biological diversity, and energy.

ANSC 361. Human Impacts on the Prehistoric Environment. 3  
 BIOL 103. Environmental Biology. 4  
 BIOL 131. Ecology and Adaptation. 4  
 (Will not count toward the university or college core requirement.)  
 BIOL 390. Conservation Biology. 3  
 CHEM 215. Environmental Chemistry. 3  
 GEOL 100. Earth Resources and Natural Hazards. 4

GEOS 130. Physical Geography.	4
GEOS 335. Biogeography.	3
PHSC 431. Energy and the Environment.	3

3) Policy and Economics  
(choose one: 3 – 4 credits)

Courses in this area help students develop their ability to analyze public policies for influencing human impact on the environment.

ECON 272. Natural Resource Economics.	3
ECON 375. Environmental Economics.	3
GEOS 241. Environmental Regulation.	3
GEOS 362. Water Resources.	4
GEOS 492. Land Use.	3

4) Human Dimensions  
(choose one: 3 credits)

Courses in this area focus on how humans have interacted with their environmental and how different cultural attitudes have brought about and responded to environmental change. Using the methods of the humanities, design, and social sciences, these courses focus on a range of environmental problems and the ethical, aesthetic, practical, and sociological issues associated with them.

ANSC 361. Human Impacts on the Prehistoric Environment.	3
APST 200. Introducing Appalachia.	3
BIOL 215. Plants and Society.	4
DSN 110. Introduction to Design.	3
DSN 402. Global Design.	3
ENGL 454. Literature and the Environment.	3
GEOS 340. International Environmental Problems.	3
PSYC 347. Environmental Psychology.	3
RCPT 230. Introduction to Outdoor Recreation.	3
SOCY 370. Environmental Sociology.	3

5) Field Applications and Capstone Experience  
(choose one with approval of advisor: 3-4 credits)

These courses provides experiential learning opportunities combined with a culminating capstone experience through which students can

synthesize and apply the understandings and tools gained in fulfilling the other area requirements. Emphasis is placed on active learning through a field-based experience. The student's advisor and Area 5 instructor approve and co-facilitate the capstone project. Only students who have completed the requirements in the other four areas are eligible to take the capstone course as the culminating course for this certificate program. The student will be responsible for securing the cooperation of the capstone course instructor through a written agreement to be signed by the student, the instructor, and the advisor. Students will 1) apply their body of knowledge in environmental studies and sustainability in a field-based context; 2) synthesize their knowledge and skills through a meaningful capstone project; and 3) demonstrate a broad understanding of environmental studies and sustainability by presenting their capstone project in a public forum.

BIOL 217. Flora of Virginia.	4
BIOL 476. Forest and Wetland Ecology.	4
COMS 407. Science and Environment Writing.	3
RCPT 331. Outdoor Living Skills.	3
RCPT 431. Sustainable Tourism.	3
or	
Appropriate Special Topics Class	
Approved by Advisor	3-4

## ANTHROPOLOGICAL SCIENCES MAJOR

### B.A. OR B.S. DEGREE

The Anthropological Sciences major provides specialized training in Biological Anthropology, Archaeology, and Forensic Anthropology. Its main focus is on the scientific study of humans and their closest (primate) relatives in terms of biocultural adaptation, variability, ecology, and evolutionary development. All requirements for an Anthropological Sciences major are outlined below. In addition to the core of required

courses, students have the option of selecting a concentration in Forensic Anthropology.

Sciences. 1-4  
 ANSC 498 Independent Study. 1-6  
 ANSC 499 Internship.

**Core Curriculum Requirements**  
 (See p. 71.) 43-45

**Required Anthropological Sciences Courses 20**

- ANSC 101 (Human Origins and Biocultural Evolution) 3
- ANSC 201 (Introduction to Anthropological Research) 2
- ANSC 301 (Principles of Archaeology/Lab) 4
- ANSC 302 (Principles of Biological Anthropology/Lab) 4
- ANSC 303 (Quantitative and Computer Methods) 4
- ANSC 401 (Anthropological Theory) 3

**Anthropological Sciences Electives 18**

The 18 credits of electives required for majors must include at least two courses each from Biological Anthropology and Archaeology electives.

**Biological Anthropology Electives 6-8 hrs**

- ANSC 210/FOSC 210. Introduction to Forensic Anthropology. 3
- ANSC 320 Human Osteology. 4
- ANSC 330 Primatology. 3
- ANSC 410 Paleoanthropology. 3
- ANSC 420/FOSC 420. Advanced Forensic Anthropology. 4
- ANSC 430 Bioarchaeology. 3
- ANSC 496 Seminar in Biological Anthropology. 3-4

**Archaeology Electives 6-9 hrs**

- ANSC 211/FOSC 211. Forensic Archaeology. 3
- ANSC 321. Archaeological Field and Lab Methods. 3
- ANSC 333. World Prehistory. 3
- ANSC 361. Human Impacts on Ancient Environments. 3
- ANSC 493. Archaeology Field School. 6
- ANSC 497. Seminar in Archaeological Anthropology. 3-4

**Other Anthropological Science Electives**  
 ANSC 495 Seminar in the Anthropological

**FORENSIC ANTHROPOLOGY CONCENTRATION**

Students interested in specializing in Forensic Anthropology have the option of choosing a Forensic Anthropology Concentration. This pre-professional concentration prepares students for graduate-level study of recent unidentified human remains in a medicolegal context. Students will fulfill all of the required core classes for the major (listed above) and use 14 of their 18 elective hours to complete the following:

- ANSC 210/FOSC 210. Introduction to Forensic Anthropology. 3
- ANSC 211/FOSC 211. Forensic Archaeology. 3
- ANSC 320. Human Osteology. 4
- ANSC 420/FOSC 420. Advanced Forensic Anthropology. 4

**B.A./B.S. REQUIREMENTS**

All majors in Anthropological Sciences must complete STAT 200, which is a class approved for Core Curriculum credit. Students are encouraged to take STAT 200 in order to fulfill this requirement and their Core Curriculum requirement for College Core B: Mathematical or Natural Sciences

**B. A. Requirements 6 – 12**

The Bachelor of Arts degree requires completion of the B. A. language requirements described on p. 77 of this catalog.

**B. S. Requirements 8**

Students choosing to earn a B.S. must complete 8 hours, including at least one lab science course worth four or more credits, from the following list of classes:

BIOL: 103, 104, 131, and any class numbered 200 or above  
 CHEM: 101, 102, 120, and any class numbered 200 or above  
 GEOG: 130, 250, 270, 315, 334, 335, 336, 350, 410, 412, 425  
 GEOL: 105, 106, and any class numbered 200 or above  
 ITEC: 120, or any class numbered 200 or above  
 MATH: 151, 152, 251, 252, 260  
 PHYS: 111, 112, and any class numbered 200 or above  
 STAT: any class numbered 200 or above, except for STAT 200

**Total Credits Needed for Degree** 120

### Graduation Requirements

Students must earn a grade of “C” or better in all Anthropological Sciences courses which are counted toward the major.

### ANTHROPOLOGICAL SCIENCES MINOR (18 semester hours)

ANSC 101. Human Origins and Biocultural Evolution. 3  
 ANSC 301. Principles of Archaeology/Lab. 4  
 ANSC 302. Principles of Biological Anthropology/Lab. 4  
**Electives** 7

### ANTHROPOLOGICAL SCIENCES ELECTIVES

ANSC 210/FOSC 210. Introduction to Forensic Anthropology. 3  
 ANSC 211/FOSC 211. Forensic Archaeology. 3  
 ANSC 320. Human Osteology. 4  
 ANSC 321. Archaeological Field and Lab Methods. 3  
 ANSC 330. Primatology.  
 ANSC 333. World Prehistory.  
 ANSC 361. Human Impacts on the Prehistoric Environment. 3  
 ANSC 410. Paleoanthropology. 3

ANSC 420/FOSC 420. Advanced Forensic Anthropology. 4  
 ANSC 430. Bioarchaeology. 3  
 ANSC 488. Final Honors Project. 3  
 ANSC 493. Field School in Archaeology. 3-6  
 ANSC 495. Seminar in Anthropological Sciences. 1-4  
 ANSC 498. Independent Study. 1-6  
 ANSC 499. Internship. 3-6

### FORENSIC SCIENCE INSTITUTE (RUFISI)

**Cliff and Donna Boyd, Co-Directors**  
<http://rufsi.asp.radford.edu>  
**257 Preston Annex**  
**(540) 831-5856**

The RU Forensic Science Institute (RUFISI) is an interdisciplinary institute whose goal is to promote and support forensic science education, research and public service. The institute faculty and affiliates are comprised of a wide range of specialists with interests in Forensic Science and include Forensic Anthropologists, Archaeologists, Biologists, Chemists, and specialists in Physics, Geology, Criminal Justice, Psychology and Information Technology. The RUFISI provides unique hands-on advanced interdisciplinary training of undergraduate students in the Forensic Sciences through the Minor in Forensic Science which prepares students for professional careers (including graduate study) in a variety of forensic medico-legal settings.

### MINOR IN FORENSIC SCIENCE

The Minor in Forensic Science is an interdisciplinary pre-professional minor designed for students with interests or career goals in Forensic Science. It complements any major, but is especially appropriate for students with an Anthropological Sciences, Biology, Chemistry, Criminal Justice, or ITEC major. It provides students with the scientific academic background and work experience in basic principles of Forensic Science, including Forensic Chemistry, Biology, Anthropological Sciences, Criminal Justice, and Digital Forensics (Computer Security).

The Forensic Science (FS) Minor is administered and supervised by the RU Forensic Science Institute (RUFISI) in conjunction with an advisory group of faculty from a variety of disciplines with forensic science expertise and specialties. Students who wish to minor in Forensic Science must consult with RUFISI directors or faculty from a Forensic Science Advisory Committee for advising and assistance with meeting graduation requirements. Ideally, the course of study for Forensic Science Minors is tailored to meet the needs of each specific student in the minor, depending upon their major, interests, and career goals. To graduate with a Minor in Forensic Science, a student must have a grade of "C" or higher in all courses taken for the minor.

The Minor in Forensic Science consists of a minimum of 20-22 semester hours, as follows:

<b>Required Courses</b>	<b>14</b>
FOSC 201. Innovations in Forensic Science.	3
FOSC 401. Forensic Science Research.	3
In addition, all Forensic Science Minors should complete either CHEM 101:102 OR BIOL 131:132 (BIOL 104:105 for non-majors)	4:4

<b>Elective Courses</b>	<b>6-8</b>
To be chosen from the following (at least three hours must be outside a student's major; at least four hours must be a science lab course):	
FOSC 210/ANSC 210. Introduction to Forensic Anthropology.	3
FOSC 211/ANSC 211. Forensic Archaeology.	3
FOSC 420/ANSC 420. Advanced Forensic Anthropology.	4
ANSC 320. Human Osteology.	4
BIOL 322. Human Anatomy and Physiology.	6
BIOL 383. Molecular Forensic Biology.	4
CHEM 424. Instrumental Methods of Analysis.	4
CHEM 465. Forensic Chemistry.	4
CRJU 341. Introduction to Forensic Science.	3
CRJU 481. Forensic Evidence.	3
ITEC 245. Introduction to Computer Security.	3
ITEC 250/GEOS 250. Introduction GIS.	

## GEOSPATIAL SCIENCE PROGRAM

The Geospatial Science program provides specialized course work for students who seek training in geospatial information systems, digital cartographic techniques, and their applications; and for students seeking a solid background in geospatial science in preparation for careers in geoinformatics or environmental planning and management. The major, which offers programs leading to a Bachelor of Science and Bachelor of Arts degree, focuses on GIS; geospatial analysis methods; and land use, watershed, and natural resources management issues. Technical strengths include geospatial information systems (GIS), digital cartographic techniques, and digital image processing as well as field research methods.

### GEOSPATIAL SCIENCE MAJOR

Requirements for Geospatial Science majors are listed below. All majors must take the same Required Core courses and must complete course work in one of two concentrations.

<b>Required Core Courses</b>	<b>24</b>
GEOG 101. Europe and the Americas or 102. Africa and Asia or 103. Human Geography if not taken for General Education	3
GEOS 125. Introduction to Geospatial Data.	3
GEOS 130. Physical Geography.	4
GEOS 211. Perspectives in Geospatial Science	3
GEOS 250. Introduction to GIS.	4
GEOS 270. Introduction to Cartography.	4
GEOS 490. Field Research Methods	3

### Concentrations 34-38

Majors must choose at least one of the two concentrations shown below.

#### B.A./B.S. Requirements

For all concentrations, the Bachelor of Arts degree requires completion of the B.A. language requirements described in this catalog. Bachelor of Science degree requirements for each concentration are described within the concentration.

## Electives

Students should consult with their academic advisors in selecting elective courses to complete the 120 semester hours required for graduation.

**Total Credits Needed For Degree 120**

## GRADUATION REQUIREMENTS

To graduate with a major in Geospatial Science, a student must have a grade point average of 2.3 in all courses taken for major requirements including those from other departments.

## CONCENTRATIONS

### ENVIRONMENTAL CONCENTRATION (36-38 semester hours)

Geospatial scientists make important contributions to both the prevention and remediation of environmental problems, from waste management to species conservation. This concentration is intended to give geospatial science students the knowledge and skills to be able to do so.

#### Required Courses 23

GEOS 241. Environmental Regulation.	3
GEOS 305. Population Geography.	3
GEOS 315. Intermediate GIS Concepts.	4
GEOS 334. Climatology.	3
GEOS 335. Biogeography.	3
GEOS 425. Remote Sensing.	4
ECON 272. Natural Resources Economics or 375. Environmental Economics.	3

Two chosen from among the following in consultation with advisor: 6-7

GEOS 362 Water Resources.	4
GEOS 492 Land Use.	3
GEOS 480 Seminar.	3
or	
GEOS 498 Independent Study.	3

Two courses from among the following: 7-8  
ANSC 361. Human Impacts on Ancient Environments.\* 4

BIOL 215. Plants and Society.*	4
BIOL 216. General Zoology.*	4
BIOL 217. Flora of Virginia.*	4
BIOL 390. Conservation Biology.*	3
BIOL 392. Environmental Toxicology.*	4
BIOL 476. Forest and Wetland Ecology.*	4
CHEM 215. Environmental Chemistry.*	3
CHEM 324. Analytical Chemistry.*	4
CHEM 424. Instrumental Methods of Analysis.*	4
GEOL 360/GEOS 350. Geomorphology.*	4
GEOL 455 Engineering Geology.*	4
GEOL 474. Hydrogeology.*	4
PHSC/PHYS 301 Meteorology.*	4
PHSC 431. Energy and the Environment.*	3

#### B.S. Requirements 8

Eight hours of natural science in addition to Core Curriculum requirements.

NOTE: A minor in a complementary field is strongly encouraged.

\*Please note that these courses have prerequisites, in some cases more than one. Consult this catalog for current requirements.

### GEOINFORMATICS CONCENTRATION (34-36 semester hours)

The Geoinformatics concentration emphasizes the development of skills in cartography, remote sensing, and computer applications. Requirements are 15 hours of geospatial science and 12-14 semester hours to be selected from courses listed in art, mathematics, computer science, and English.

#### Required Geospatial Science Courses 19

GEOS 315. Intermediate GIS Concepts.	4
GEOS 380. Spatial Analysis Techniques.	4
GEOS 410. Advanced GIS.	4
GEOS 425. Remote Sensing. 4	
*GEOS 480. Seminar.	
or	
*GEOS 498. Independent Study.	3
*Must be in an area of applied GIS.	

<b>Required Courses Outside Geospatial Science</b>	<b>15-17</b>
ENGL 306. Professional Writing.	3
ITEC 304. Database from the Manager's Perspective.	3
Three courses from among the following:	
ART 280. Introduction to Graphic Design.	3
ENGL 406. Advanced Technical Writing.	3
ITEC 120. Principles of Computer Science I.	4
ITEC 122. Discrete Mathematics.	3
ITEC 220. Principles of Computer Science II.	4
MATH 137. College Algebra.	3
MATH 138. Precalculus Function Analysis.	3
MATH 151:152. Calculus and Analytic Geometry I and II.	3:3

**B.S. Requirement 8**  
 Eight additional hours of natural science courses.

NOTE: Internships are strongly recommended. Credit for internships may be gained through GEOS 499. Internships are taken pass/fail and cannot be used to fulfill requirements of the concentration.

**GEOSPATIAL SCIENCE MINOR  
 (18 semester hours)**

A minor in Geospatial Science consists of 18 hours of GEOG or GEOS courses, subject to approval by the department.

**GEOLOGY PROGRAM**

The program in geology provides students with a basic framework for a professional career in the field of geology, for graduate studies in geology, for board certification as a professional geologist, or for licensure to teach earth and space science. A student may pursue a curriculum leading to a Bachelor of Science degree.

**B.S. DEGREE  
 GEOLOGY MAJOR**

All requirements for geology majors are outlined below. All majors must take the same Required Core courses and must complete course work in one of three concentrations.

**Core Curriculum Requirements 43-45  
 (See p. 71.)**

**Required Core Courses 28**

GEOL 100. Earth Resources and Natural Hazards.*	4
GEOL 105. Exploring Earth.*	4
GEOL 106. The Earth Through Time.*	4
GEOL 310. Mineralogy.	4
GEOL 312. Igneous and Metamorphic Petrology.	4
GEOL 440. Structural Geology.	4
GEOL 441. Geologic Field Methods.	4

\* Students who have successfully completed GEOL 103 may not take GEOL 100 for credit. Students who have successfully completed GEOL 101 may not take GEOL 105 for credit. Any two of these three courses (GEOL 100, GEOL 105, and GEOL 106) have been approved for Core Curriculum credit in Natural Sciences.

**CONCENTRATIONS**

(Majors must choose one of the three concentrations shown below).

**GENERAL GEOLOGY  
 CONCENTRATION  
 (37 semester hours)**

The General Geology Concentration is designed for students who wish a broad, traditional overview of geology as an academic discipline. Students are encouraged to use electives to gain competency in particular topics. The concentration is appropriate for students interested in pursuing graduate studies in geology. In order to receive a B.S. in Geology with the General

Geology Concentration, students must complete the 28 credits of Geology Required Core Courses above and fulfill the additional Geology and related area requirements listed below.

**Additional Required Geology Courses 23**

GEOS 250. Introduction to GIS.	3
GEOL 320. Sedimentary Petrology and Stratigraphy.	4
GEOL 460. Senior Seminar.	3
Plus any three from the following:	
GEOS 315. Intermediate GIS Concepts.	4
or	
GEOL 335. General Paleontology.	4
or	
GEOL 360. Geomorphology.	4
or	
GEOL 361. Geology of Virginia.	4
or	
GEOL 365. Oceanography.	4
or	
GEOL 406. Geophysics.	4
or	
GEOL 455. Engineering Geology.	4
or	
GEOL 461. Regional Geology of the US.	4
or	
GEOL 474. Hydrogeology.	4

**Related Requirements 14**

MATH 151:152. Calculus and Analytic Geometry I and II	6
CHEM 101:102. General Chemistry.	8

**B.S. Requirements 8**

Bachelor of Science students must take eight hours of physics courses.

**Total Credits Needed for Degree 120**

(Includes Core Curriculum courses, required courses, and electives.)

**ENGINEERING AND ENVIRONMENTAL GEOSCIENCES CONCENTRATION (41 semester hours)**

The Engineering and Environmental Geosciences concentration is designed for students

wishing to emphasize the engineering and hydrological aspects of geology as they pertain to addressing practical problems in society. In order to receive a B.S. in Geology with the Engineering and Environmental Geosciences Concentration, students must complete the 28 credits of Geology Required Core Courses above and fulfill the additional Geology and related area requirements listed below.

**Required Geology Courses 27**

GEOS 250. Introduction to GIS.	4
GEOS 315. Intermediate GIS Concepts.	4
GEOL 320. Sedimentary Petrology and Stratigraphy.	4
GEOL 406. Geophysics.	4
GEOL 455. Engineering Geology.	4
GEOL 460. Senior Seminar.	3
GEOL 474. Hydrogeology.	4

**Related Requirements 14**

MATH 151:152. Calculus and Analytic Geometry I and II	6
CHEM 101:102. General Chemistry.	8

**B.S. Requirements 8**

Bachelor of Science students must take eight hours of physics courses.

**Total Credits Needed for Degree 120**

(Includes Core Curriculum courses, required courses, and electives.)

**EARTH SCIENCES CONCENTRATION**

**(TEACHING LICENSURE) (62 semester hours)**

This concentration is primarily for students who desire to attain certification as a secondary school earth science teacher in Virginia. In order to receive a B.S. in Geology with the Earth Sciences Concentration, students must fulfill all Geology and related area requirements listed below, and must complete the 28 credits of Geology Required

Core Courses above and fulfill all requirements in the Secondary Licensure Option in Earth Sciences. Please refer to the College of Education and Human Development, School of Teacher Education and Leadership for details.

**Additional Required Geology Courses 12**

- GEOL 365. Oceanography. 4
- PHSC 301. Meteorology. 4

Plus any one of the following:

- GEOL 320. Sedimentary Petrology and Stratigraphy.
- or
- GEOL 361. Geology of Virginia.
- or
- GEOL 461. Regional Geology of the US. 4

**Other Required Courses 6**

An additional six semester hours from the following:

- MATH 138. Precalculus Function Analysis. 3
- or
- MATH 140. Trigonometry and Analytic Geometry. 3
- or
- MATH 151. Calculus and Analytic Geometry I.\* 3
- or
- MATH 152. Calculus and Analytic Geometry. 3
- or
- STAT 200. Introduction to Statistics. 3

\* This course has been approved for Core Curriculum credit in Mathematical Sciences. Either MATH 138 or MATH 140 may be taken in partial fulfillment of this requirement, but not both.

**Related Requirements 4**

- An additional four semester hours selected from the following:
- ASTR 112. General Astronomy II. 4
- BIOL 105. Biology for Health Science. 4
- BIOL 131. Ecology and Adaptation. 4
- CHEM 101. General Chemistry. 4
- GEOL 335. General Paleontology. 4

**B.S. Requirements 8**

Bachelor of Science students must take the following two courses:

- ASTR 111. General Astronomy I. 4
- PHYS 111. General Physics. 4

**Education Courses 32**

(Contact the associate dean of the College of Education and Human Development for information concerning these courses.)

**Total Credits Needed for Degree 127**

(Includes Core Curriculum courses, required courses, and electives.)

**ALL CONCENTRATIONS**

**Electives**

Students should consult with their academic advisors in selecting elective courses to complete 120 semester hours required for graduation. Additional courses in calculus, computer science and statistics (beyond those required) are recommended for geology majors.

**Total Credits Needed for Degree 120**

**GRADUATION REQUIREMENTS**

To graduate with a major in geology, a student must attain an overall grade point average of 2.0 or higher in all courses in geology, and in the required courses in chemistry, physics, and mathematics.

**GEOLOGY MINOR (20 semester hours)**

A student who wishes to elect a minor in geology is required to take GEOL 100, 105, and 106, plus a minimum of eight additional semester hours from geology courses other than GEOL 498.

**PHYSICS PROGRAM**

This program leads to a B.A. or B.S. degree in physics. There are three different curricula: the physics major, the physics education concentration of the physics major, and

the earth and space science concentration of the physics major. The physics major is the appropriate curriculum for a student contemplating a career in physics or engineering. The physics education concentration of the physics major is a more general program, suitable for a student planning a career or as a high school teacher. The earth and space science concentration is a flexible program intended for students interested in more applied areas such as astronomy or geophysics. All three programs develop analytic and problem-solving skills which will be valuable in any future occupation.

### **COLLABORATIVE PROGRAM IN ENGINEERING**

The School of Environmental and Physical Science at Radford University and the College of Engineering at Virginia Polytechnic Institute and State University (Virginia Tech) offer a joint program in physics and engineering. This is a dual degree programs in which the student will receive a B.S. in physics from Radford University and a B.S. in engineering from Virginia Tech. The approximate time required for a student to complete these programs is five years. During the first three years, the student completes the major requirements in physics, as well as most or all of the Core Curriculum requirements at Radford. Some introductory engineering courses should also be completed while the student is at Radford; some of these may be taken during the summer. The student then transfers to Virginia Tech and, in two additional years, completes the requirements for a degree in engineering. Participants in this program who have a grade point average of 3.0 or above are guaranteed admission to the College of Engineering at Virginia Polytechnic Institute and State University. All degree requirements for both Radford University and Virginia Tech should be satisfied by the end of the fifth year. The student then receives a degree from each institution.

The student should choose, early in the program, the intended engineering major at Virginia Tech. This choice will affect the physics curriculum that the student undertakes at Radford. All students in this program must be prepared to take PHYS 221:222 and MATH 151:152 dur-

ing the first year. MATH 251:252 will be taken during the second year. Chemistry (CHEM 101:102), upper-level physics courses, and additional mathematics courses will be completed during the second and third years of the program. The upper-level physics courses will be chosen, with the assistance of a faculty advisor, to fulfill the requirements of the major in physics, as well as to complement the student's intended engineering curriculum. Appropriate courses in Core Curriculum will also be selected with the aid of an advisor. The student will be encouraged to take an introduction to engineering course at Virginia Tech as early as the summer between the first and second years of the program. The remaining requirements of the chosen engineering major will then be completed after the student has transferred to Virginia Tech. Further details about this program can be obtained by contacting the physics program coordinator.

### **PHYSICS MAJOR**

This is the curriculum recommended for students interested in careers as physicists and for students contemplating graduate school in physics.

#### **B.A. OR B.S. DEGREE**

There are 46 semester hours required for students in this curriculum (exclusive of the B.A./B.S. requirements). These include 12 semester hours of Math Requirements, 28 semester hours of Required Courses, and at least 6 hours of Other Courses..

**Core Curriculum Requirements 43-45**  
(See p. 71.)

**Math Requirements 12**  
MATH 151:152 and 251:252. Calculus and Analytic  
Geometry I, II, III and IV. 3:3:3:3

**Required Courses 28**  
PHYS 221:222. Physics. 4:4  
PHYS 305. Modern Physics. 4  
PHYS 306. Intermediate Mechanics. 3  
PHYS 307. Electricity and Magnetism. 4  
PHYS 320. Mechanics. 3

PHYS 421. Electromagnetic Theory I.	3	<b>Other Courses</b>	9
PHYS 430. Quantum Mechanics.	3	A minimum of 9 semester hours must be selected from the following:	
<b>Other Courses</b>	<b>6</b>	PHYS 310. Optics.	4
A minimum of 6 semester hours must be selected from the following:		PHYS 320. Mechanics.	3
PHYS 310. Optics.	4	PHYS 330. Thermodynamics and Statistical Mechanics.	3
PHYS 330. Thermodynamics and Statistical Mechanics.	3	PHYS 421. Electromagnetic Theory I.	3
PHYS 422. Electromagnetic Theory II.	3	PHYS 422. Electromagnetic Theory II.	3
PHYS 450. Selected Topics in Physics.	3-4	PHYS 450. Selected Topics in Physics	3-4
<b>B.A./B.S. Requirements</b>	<b>6-12</b>	ASTR 421. Solar System Astronomy.	3
(See below.)		ASTR 422. Galactic Astronomy and Cosmology.	3
<b>Electives</b>		<b>B.A./B.S. Requirements</b>	<b>6-12</b>
Students should consult with their academic advisors in selecting elective courses to complete the 120 semester hours required for graduation.		(See below.)	
<b>Total Credits Needed For Graduation</b>	<b>120</b>	<b>Electives</b>	
		Students should consult with their academic advisors in selecting elective courses to complete the 120 semester hours required for graduation.	

## PHYSICS EDUCATION CONCENTRATION

### B.A. OR B.S. DEGREE

There are 40 semester hours required for students in this concentration (exclusive of the B.A./B.S. requirements). These include 9 semester hours of MATH requirements, 22 semester hours of Required Courses, and at least nine hours of Other Courses

**Core curriculum requirements** 43-45  
(See p. 71.)

**Math Requirements** 9

MATH 151:152:251 Calculus and Analytic Geometry I, II, III. 3:3:3

**Required Courses** 22

PHYS 111:112. General Physics. 4:4  
or

PHYS 221:222. Physics. 4:4

PHYS 305. Modern Physics. 4

PHYS 306. Intermediate Mechanics. 3

PHYS 307. Electricity and Magnetism. 4

PHYS 430. Quantum Mechanics. 3

## EARTH AND SPACE SCIENCE CONCENTRATION

This concentration will allow a broad physics-based degree with more flexibility in the elective courses for students to choose their career path. For example those wishing to go to graduate school in astronomy may choose more astronomy classes. Those in our existing 3:2 Cooperative Engineering Agreement with Virginia Tech may choose more applied electives such as Geophysics and Engineering Geology.

### B.A. OR B.S. DEGREE

There are 41 semester hours required for students in this concentration (exclusive of the B.A./B.S. requirements). These include 6 semester hours of math requirements, 19 hours of required courses, and at least 16 hours of other courses.

**Core Curriculum Requirements** 43-45  
(See p. 71.)

**Math Requirements** 6

MATH 151:152 Calculus and Analytic Geometry I, II 3:3

<b>Required courses</b>	<b>19</b>
PHYS 111:112. General Physic	4:4
or	
PHYS 221:222. Physics.	4:4
PHYS 305. Modern Physics.	4
PHYS 306. Intermediate Mechanics.	3
PHYS 307. Electricity and Magnetism.	4

**Other Courses: 16**

A minimum of 16 semester hours must be selected from the following:

ASTR 111. General Astronomy I.	4
ASTR 112. General Astronomy II.	4
ASTR 310. Observational Methods in Astronomy.	3
ASTR 421. Solar System Astronomy.	3
ASTR 422. Galactic Astronomy and Cosmology.	3
GEOL 406/PHYS 406. Geophysics.	4
GEOL 455. Principles of Engineering Geology.	4

Any PHYS course at the 300-level or above except PHYS 470.

**Electives**

Students should consult with their academic advisors in selecting elective courses to complete the 120 semester hours required for graduation.

**Total Credits Needed For Graduation 120**

**B.A./B.S. REQUIREMENTS  
(All Physics Majors)**

**B.A. Requirement**

**6-12**

The Bachelor of Arts degree requires completion of the B.A. language requirement described on p. 77 of this catalog.

**B.S. Requirement 8**

CHEM 101:102 (General Chemistry)

**Electives**

Students should consult with their academic advisors in selecting elective courses to complete the 120 semester hours required for graduation.

**Total Credits Needed For Graduation 120**

**GRADUATION REQUIREMENTS**

To graduate with a major in Physics, a student must attain an overall grade point average of 2.0 or higher in all courses attempted in the major including Calculus and Analytic Geometry.

**TEACHING LICENSURE**

Students seeking endorsements to teach physics must take appropriate courses in education. (Contact the College of Education and Human Development for information concerning these courses.)

**ASTRONOMY MINOR  
(21 semester hours)**

The minor in Astronomy consists of 21 semester hours selected from the following:

PHYS 111:112. General Physics.	
or	
PHYS 221:222. Physics.	4:4
Select at least 13 hours from the following:	
ASTR 111,112. General Astronomy I and II.	4:4
ASTR 310. Observational Astronomy.	3
ASTR 421. Solar System Astronomy.	3
ASTR 422. Galactic Astronomy and Cosmology.	3

**PHYSICS MINOR  
(21 semester hours)**

The minor in Physics consists of eight semester hours from the following:

PHYS 111:112. General Physics.	4:4
or	
PHYS 221:222. Physics.	4:4
and a minimum of nine additional semester hours in physics, except PHYS 231.	

# COLLEGE OF VISUAL AND PERFORMING ARTS

**Dr. Joseph P. Scartelli, Dean**  
Porterfield 242, (540) 831-5265

**Donna Shelton Oliver,**  
Advising Coordinator  
Porterfield 241, (540) 831-6903

**April Newcomer, Assistant to the Dean**  
Porterfield 240, (540) 831-6237

The College of Visual and Performing Arts seeks to provide comprehensive professional and liberal arts education for students in the disciplines of dance, fashion, interior design, music, theatre and cinema and the visual arts; to serve the educational needs of all Radford students by providing comprehensive opportunities and experiences in the arts and design; to enrich the artistic and cultural environment of the university, western Virginia, the Commonwealth of Virginia, and beyond; and to make significant artistic contributions in the disciplines of dance, fashion, interior design, music, theatre, and the visual arts.

Departmental curricula address the needs of students seeking careers in the arts as teachers, designers, therapists, practitioners, and performers. These same courses of study may be modified to combine study in the arts with a number of other major disciplines. In addition, each department offers courses and performance opportunities that encourage participation by students wishing to go beyond the required university Core Curriculum component.

The faculty members of the college maintain active professional lives as performers, artists, designers and research

scholars. Frequent visits by guest artists, performers, designers, and educators provide an added dimension to the educational experiences offered through the CVPA. Students have many opportunities to work with and learn from these professionals who appear annually on the campus.

Internship programs are an integral part of many College of Visual and Performing Arts degree requirements. In addition to the usual student teaching component required of all education majors, programs in art, dance and music education involve students in extensive field experiences prior to their senior year of study. Music therapy students are involved in field training as well as a six-month internship. Music business students also are involved in field training and have an eight-week internship. Students in Fashion Design & Interior Design experience a required internship in professional settings. Graphic design students may spend one semester in professional studios and firms in order to apply skills and techniques developed in the classroom. The College of Visual and Performing Arts is composed of three academic departments, one school, the Art Museum, and the adjacent Corinna de la Burd  Sculpture Court. The academic departments and schools are:

Art	p. 202
Interior Design & Fashion	p. 209
Music	p. 215
School of Dance and Theatre	p. 222

## **ACADEMIC ADVISING**

**Academic Advising and  
Development Center  
Porterfield Hall 241  
Porterfield Hall 175 and 176A  
(540) 831-6903**

The primary purpose of academic advising in the College of Visual and Performing Arts is to encourage students to develop a meaningful educational plan compatible with their life and career goals. In the college, faculty advisors and the Advising and Development Center staff are available to assist students in: exploring educational and career options; clarifying university and departmental requirements; selecting appropriate courses; evaluating academic progress; and obtaining referral information for academic and student support services.

The student has ultimate responsibility for making decisions about his or her educational plans and for meeting the requirements of academic programs.

Students are encouraged to make and keep regular advising appointments; plan class schedules in conjunction with their advisor; and monitor their progress towards completion of their degree program.

## **RADFORD UNIVERSITY ART MUSEUM**

**Covington Center for Visual and  
Performing Arts  
Steve Arbury, Director  
(540) 831-5754**

The Radford University Art Museum is housed in the Covington Center. It also includes Gallery 205 in Porterfield Hall and the de la Burd  Sculpture Court outside Porterfield Hall. There are also two other exhibition

spaces on campus in Muse and Tyler Halls. The museum serves the College of Visual and Performing Arts, the university and the broader community as an educational and cultural resource through exhibitions that are closely linked with academic programs, teaching, research and community outreach activities. Students interested in museum careers can enroll in Art History and Museum Studies courses offered through the Department of Art.

## **ART**

**Richard Bay, Chairperson  
[www.radford.edu/art-web/](http://www.radford.edu/art-web/)**

## **UNDERGRADUATE PROGRAM**

The Art Department provides a comprehensive education for students in visual arts and prepares art educators for entry into their chosen profession. In addition to offering training in studio art, art education, art history and museum studies, the department provides supportive course work for other departments and groups on campus and provides cultural enrichment for the campus and the community.

Students interested in pursuing art careers can develop specialized skills. For example, most studio areas are offered each semester, providing students with opportunities to explore a variety of interests and develop expertise in chosen media. Art majors may choose to focus on one or more of the following areas of emphasis: drawing, painting, graphic design, ceramics, sculpture, jewelry, watercolor, photography, art education, art history and museum studies, and special topics (past offerings have included environmental art,

experimental photography, portfolio development, illustration, etc.).

Studio art and art history and museum studies programs may either prepare students for seeking employment after graduation or for entry into graduate programs. Outside internships enable qualified students to apply acquired skills in a variety of professional environments. The department's art education concentration prepares students for teaching art in elementary and secondary grades, and/or for entry into graduate programs in art education.

The Art Department offers four undergraduate degrees. Students pursuing a major in Art may earn a Bachelor of Arts (B.A.), Bachelor of Science (B.S.), Bachelor of Fine Arts (B.F.A.), or Bachelor of Science in Art Education (B.S.) degree. Art Education majors may also earn teacher licensure.

Students in any concentration within the art department must receive a grade of C or better in any course that counts toward the major. Courses receiving a D must be retaken.

## ART MAJOR

### B.A. DEGREE

Students desiring a concentration in art history and museum studies have the option of getting a B.A. degree in art with the art history concentration. This program is especially ideal for students who are interested in art, art history, and other disciplines such as history, anthropology, and literature. The concentration will prepare such students for graduate work in art history and/or museum studies and it also provides a relevant base for students who are interested in pursuing a master's degree in art therapy. In general, the concentration combines a strong emphasis on art history with the opportunity to

take electives and in some cases, pursue a minor, in fields such as business, health sciences, and the various humanities.

### B.A. DEGREE WITH ART HISTORY AND MUSEUM STUDIES CONCENTRATION

All the requirements for art majors earning a B.A. with a concentration in art history and museum studies are outlined below.

#### Core Curriculum Requirements 43-45 (See p. 71.)

<b>Art Core Requirements</b>	12
ART 101. 2-Dimensional Art Foundations.	3
ART 102. 3-Dimensional Art Foundations.	3
*ART 215. Art History Survey: Prehistory to Gothic.	3
*ART 216. Art History Survey: Renaissance to Contemporary.	3
* This course has been approved for Core Curriculum credit in Visual and Performing Arts.	

#### Art History and Museum Studies Requirements 24

ART 302. Exhibition Fundamentals.	3
ARTH 420. Twentieth Century Art.	3
ART 491. Museum Studies.	3
ARTH 446. Theory, Methods and Writing in Art History.	3

<b>Other Art History Courses:</b>	
Any Art History course except ART 111.	6-12
<b>Other Museum Studies Courses:</b>	
Choose from: ART 492. Museum Practicum.	
or	
ART 493. Museum Internship.	0-6
Studio Requirements	6

ART 205. Drawing. 3  
 Any Three-Dimensional (3-D) course. 3

**B.A. Degree Requirements 6-12**

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 77 of this catalog.

**Electives 21-29**

Students should consult their advisors in selecting elective courses to complete the 120 hours required for graduation. It is recommended that students choose elective courses appropriate to their individual career goals from the departments of Accounting, Anthropological Sciences, Art, Finance, Management, Media Studies, Philosophy, Communication, and/or Theatre. Some suggested courses are listed below:

- ART 110. Basic Computer Skills for the Fine Artist.
- ART 250. Photography.
- ART 280. Introduction to Graphic Design.
- Other Art History courses not already taken:
- COMS 225. Introduction to Public Relations.
- PHIL 380. Aesthetics.
- THEA 232. Theatrical Lighting and Sound.

**Total Credits Needed for Degree 120**

**B.S. DEGREE**

**B.S. DEGREE WITH STUDIO CONCENTRATION**

The Bachelor of Science is a liberal arts degree that provides flexibility for greater career options. Students pursuing the B.S.

degree may choose to combine their major in art with any of several disciplines. For example, study in areas such as television, journalism, theatre and psychology can lead to careers in newspaper layout, costume or set design, and graduate work in art therapy. All the requirements for art majors earning a B.S. are outlined below.

**Core Curriculum Requirements 43-45 (See p. 71.)**

**Art Core Requirements 15**

- ART 101. 2-Dimensional Art Foundations. 3
- ART 102. 3-Dimensional Art Foundations. 3
- ART 205. Drawing. 3
- \*ART 215. Art History Survey: Prehistory to Gothic. 3
- \*ART 216. Art History Survey: Renaissance to Contemporary. 3
- \* This course has been approved for Core Curriculum credit in Visual and Performing Arts.

**Studio Requirements 21**

- Six semester hours of 2-dimensional (2-D) studio courses. 6
- Six semester hours of 3-dimensional (3-D) studio courses. 6
- Nine additional hours selected from 2-D or 3-D studio courses. 9
- Art History Requirements 3
- Three additional semester hours in Art History except ART 111.

**B.S. Degree Requirements 6-10**

Any College of Visual and Performing Arts course chosen in consultation with an advisor, except an art course.

<b>General Electives</b>	<b>26-32</b>	<b>Art History Courses</b>	<b>6</b>
Students should consult their advisors in selecting elective courses to complete the 120 hours required for graduation.		Six semester hours of additional Art History courses except ART 111.	

<b>Total Credits Needed for Degree</b>	<b>120</b>	<b>Art History or Studio Electives</b>	<b>6</b>
		Six semester hours chosen from 2-D or 3-D studio courses and/or Art History courses except ART 111.	

**B.S. DEGREE WITH TEACHER LICENSURE IN ART EDUCATION**

The art major who desires a professional degree in art education should pursue the Bachelor of Science degree with an art education concentration. The art education program focuses on professional level artistic development along with appropriate courses in professional education. Students participate in field experience and student teaching under the careful supervision of the art education faculty. This experience also leads to certification in art education. All of the requirements for majors pursuing this concentration are outlined below.

**Core Curriculum Requirements 43-45**  
(See p. 71.)

<b>Art Core Requirements</b>	<b>24</b>
ART 204. Sculpture.	3
ART 205. Drawing.	3
ART 207. Ceramics.	3
*ART 215. Art History Survey: Prehistory to Gothic.	3
*ART 216. Art History Survey: Renaissance to Contemporary.	3
ART 220. Painting.	3
ART 225. Watercolor.	3
ART 250. Photography	3
* This course has been approved for Core Curriculum credit in Visual and Performing Arts.	

**Required Professional Education Courses 35-36**

ART 212. 2-D Media, Materials, and Techniques for the Classroom.	3
ART 213. 3-D Media, Materials, and Techniques for the Classroom.	3
ART 241. Elementary Art Education Theory and Practice.	3
ART 242. Secondary Art Education Theory and Practice.	3
ART 340. Clinical Experience in Art Education.	3
HUMD 300. Human Growth and Development Birth through Adolescence.	3
EDEF 320. Introduction to Professional Education.	3
EDET 445. Integration of Educational Technology.	3
or	
ART 110. Basic Computer Skills for the Fine Arts.	3*
EDUC 453. Student Teaching.	12
*(When EDET 445 (3) is not offered, ART 110 or ART 280 (3) may be substituted with approval of the student's advisor.)	

## B.S. DEGREE REQUIREMENTS

B.S. Degree requirements are met through completion of professional education courses.

### **Total Credits Needed for Graduation** **121/122**

In addition to completing the required courses listed above, students pursuing the art education concentration must complete requirements for the Teacher Education Program. Admission to the Teacher Education Program requires, but is not limited to the following:

- Completion of 45 semester hours of course work.
- A minimum 2.5 grade point average on all work completed at Radford and on all work attempted in the major.
- Completed admission application submitted to the educational unit.
- Passing scores on the basic skills test required for licensure by the State of Virginia.

Professional review is required of the candidate before student teaching. This includes:

Passing Scores on Praxis I, VCLA, and Praxis II;  
Portfolio review for artistic and educational competency;  
Completion of a departmental interview and screening examination;  
Other requirements as outlined by the Educational Unit.

Please refer to the College of Education and Human Development catalog sections regarding admissions requirements, admissions procedures, retention procedures, eligibility for student teaching, licensure and graduation requirements. Additional information may be obtained by contacting the College of Education and Human Development Center for Advising and Licensure, Peters Hall.

## B.F.A. DEGREE

The Bachelor of Fine Arts program provides a comprehensive education for the professional artist and prepares students for entry into Master of Fine Arts Degree programs.

A portfolio review for all Bachelor of Fine Arts students is administered each academic year during spring semester by a Department of Art faculty jury appointed by the department chairperson. Bachelor of Fine Arts students must satisfactorily complete the annual portfolio review with a minimum score of 2.5. All students, including students who transfer into the B.F.A. Program from other degree options and transfer students, must pass the portfolio review the year before they graduate to be eligible to participate in the exit review. To be eligible for the degree, a student must earn a satisfactory score of 2.5 or more in an exit review consisting primarily of work in the student's area of specialization. After passing an exit review, the student will then hang the work in the B.F.A. exhibition. The Art Department faculty will give final approval/disapproval after the B.F.A. exhibition is hung. B.F.A. art majors must complete a concentration in either two-dimensional (2-D) or three-dimensional (3-D) studio, or graphic design courses.

### **B.F.A. DEGREE WITH STUDIO ART CONCENTRATION**

**Core Curriculum Requirements** **43-45**  
(See p. 71.)

**Art/Philosophy Core Requirements** **27**

ART 101. 2-Dimensional Art Foundations.	3
ART 102. 3-Dimensional Art Foundations.	3
ART 205. Drawing.	3

*ART 215. Art History Survey: Prehistory to Gothic.	3
*ART 216. Art History Survey: Renaissance to Contemporary.	3
ART 305. Figure Drawing.	3
ART 405. Advanced Drawing.	6
PHIL 380. Aesthetics.	3
* This course has been approved for Core Curriculum credit in Visual and Performing Arts.	
Art History and Museum Studies	12-18
ART 302. Exhibition Fundamentals.	3
ARTH 420. Twentieth Century Art.	3
6 to 12 semester hours of additional Art History courses except ART 111.	6-12

**Studio Courses 24-30**

Eighteen semester hours of studio courses in area of concentration (either 2-D or 3-D).\*

Within this area of concentration, the students must select an area of specialization and take at least 12 of the 18 hours in that specialization. Two dimensional areas of specialization include drawing (drawing must include 12 hours beyond the core requirement of 12 hours of drawing), digital fine art (includes animation and video art), painting (includes watercolor and photography). Three-dimensional areas of specialization include sculpture, ceramics, and jewelry.

Six semester hours of studio courses not in area of concentration. 6

**General Electives (if needed) 0-11**

Students should consult their advisors in selecting elective courses to complete the 120 hours required for graduation.

**Total Credits Needed for Degree 120**

**B.F.A. DEGREE WITH GRAPHIC DESIGN CONCENTRATION**

**Core Curriculum Requirements 43-45 (See p. 71.)**

**Art Core Requirements 15**

ART 101. 2-Dimensional Art Foundations.	3
ART 102. 3-Dimensional Art Foundations.	3
ART 205. Drawing.	3
*ART 215. Art History Survey: Prehistory to Gothic.	3
*ART 216. Art History Survey: Renaissance to Contemporary.	3
ART 305. Figure Drawing.	3
ART 405. Advanced Drawing.	3
* This course has been approved for Core Curriculum credit in Visual and Performing Arts.	
Art History and Museum Studies	9
ARTH 420. Twentieth Century Art.	3
ART 429. History of Graphic Design.	3
Any Art History course except ART 111.	3
2-D Studio Courses	6
2-D Studio Art course chosen from:	
ART 220. Painting.	3
ART 225. Watercolor.	3
ART 250. Photography.	3
3-D Studio Courses	6
3-D Studio Art course chosen from:	
ART 204. Sculpture.	3
ART 207. Ceramics.	3
ART 303. Jewelry and Metalworking.	3

**Additional requirements 6**

Six additional semester hours of courses in any Studio, PHIL 380. Aesthetics, and/or Art History except ART 111. 6

<b>Graphic Design Courses</b>	<b>22</b>
ART 280. Introduction to Graphic Design.	3
ART 281. Graphic Design Production Techniques.	3
ART 282. Typography and Layout Design.	3
ART 380. Intermediate Graphic Design.	3
ART 381. Graphic Design for the Web.	3
ART 480. Publication Design.	3
ART 483. Portfolio Preparation and Studio Management for Graphic Designers.	3
ART 484. Graphic Design Seminar.	1

<b>Graphic Design Electives</b>	<b>6</b>
Graphic Design electives chosen from:	
ART 311. Digital Photography.	3
ART 371. Three Dimensional Computer Art.	3
ART 406. Selected Topics.	3
ART 414. Packaging and 3-D Design.	3
ART 415. Illustration.	3
ART 481. Advanced Graphic Design Production Techniques.	3
ART 494. Internship.	3
ART 498. Independent Studies.	1

**General Electives** **5-7**

Students should consult their advisors in selecting elective courses to complete the 120 hours required for graduation.

**Total Credits Needed for Degree** **120**

**Major Grade Point Average**

The GPA in the major is calculated from required courses with an ART prefix, except ART 111.

**ART MINOR**

Students pursuing a minor in art may choose to minor in Art or Art History.

**GENERAL ART MINOR** **21**

The Art minor consists of 21 semester hours of art courses as follows:

ART 205. Drawing.	3
18 additional semester hours of courses chosen from:	
Any studio or Art History courses except ART 111.	18

**ART HISTORY MINOR** **21**

The Art History Minor consists of 21 semester hours of Art History courses (excluding ART 111).

**Minor Grade Point Average**

The GPA in the minor is calculated from required courses with an ART prefix, except ART 111.

**GRADUATE PROGRAMS**

The Department of Art offers a program leading to the Masters of Fine Arts degree. Students interested in Art Education at the graduate level can seek a concentration in Art Education through the Department of Education and Human Development. See the *Radford University Graduate College* for further information.

## INTERIOR DESIGN & FASHION

**Holly L. Cline, Interim Chairperson**  
<http://id-f.asp.radford.edu/>

### UNDERGRADUATE PROGRAM

The undergraduate degree concentrations in the Department of Interior Design & Fashion prepare students for careers as professional designers in fashion design and interior design; for careers in the merchandising of fashion and interior products; for careers in design management; for careers in design culture; and for a wide variety of related occupations in the fashion and interiors industries. In preparing students for success in these exciting fields within the world of design, the department provides “hands on” experiences that enhance creativity and aesthetic sensibilities, while developing decision-making and creative problem solving skills for accommodating all functional, technical, legal, and business concerns within a design solution. The curriculum integrates analytical and technological skills, and promotes the development of communication and team building skills at all levels, essential for success in all design fields. Course work prepares students to meet current professional standards. Internships enable students to apply acquired skills in a variety of professional environments, including fashion design studios, architectural and/or interior design firms, dealerships, retail establishments, trade organizations, art firms and manufacturing firms. The department seeks to promote excellence and ensure the competency of each graduate by imposing rigorous assessment measurements throughout the program and at every academic level.

## INTERIOR DESIGN & FASHION

Students must maintain an overall cumulative GPA of 2.0 and a 2.5 or higher cumulative in-major GPA in order to proceed to the following academic year and to graduate. Students must also pass department-wide Student Outcomes Assessment processes. These performance measures include: Basic Skills Assessment to proceed from first to second year [a “C” or better is required for all 100 level DSN, DSNF, DSNI, and DSNM courses. The GPA requirement of a 2.5 goes into effect for matriculation to all subsequent academic years including graduation.]; Design/Merchandising Skills Portfolio Review to proceed from second to third year; Career Preparation and Professional Skills Review to proceed to internship, and Internship Review to proceed to fourth year; and a Capstone Activity to proceed to graduation.

The Department of Interior Design & Fashion requires laptops for all students.

- The Department of Interior Design & Fashion offers:
- A Bachelor of Fine Arts degree with a concentration in Interior Design or Fashion Design
- A Bachelor of Science degree with a concentration in Merchandising for Design, Design Management, or Design Culture.
- The department also offers a minor in Design Appreciation.

All education is within the framework of a liberal arts education.

### FASHION DESIGN CONCENTRATION

#### B.F.A. DEGREE

**120**

The Fashion Design concentration emphasizes knowledge of and appreciation for apparel design and its related fields. Within the framework of a liberal arts education, students learn to identify, research, and solve fashion problems in a functional

and aesthetic manner. This concentration provides a course of study that develops an in-depth knowledge base of theoretical, creative, technical, and business skills. The Fashion Design Concentration prepares students for employment in design, manufacturing, costuming, or auxiliary fashion industries. With elective hours students may combine this concentration with other areas such as management, marketing, media studies, theatre and/or art.

**Core Curriculum Requirements 43/45**  
(See p. 71.)

All majors are required to take the following courses, and are encouraged to take them as part of their Core Curriculum requirements.

- PHIL 112
- ART 215
- SOCY 110
- SOCY 121
- ECON 105 or 106
- ART 216
- PSYC 121

**DSN Core 12**  
DSN 100, 110, 143, 173, 340

**DSN Design Support Courses 10**  
220, 223, 402, 403

**DSNF Core 44**  
DSNF 105, 200, 202, 205, 207, 300, 305, 307, 320, 341, 350, 355, 400, 404, 405;

**Electives 10/11**  
UNIV 100 (optional)

Students following the Fashion Design Concentration should consult their advisor in selecting electives to complete the 120 semester hours required for graduation.

**Total Credits for B.F.A. Degree 120**

**Major Grade Point Average**

The GPA in-major must be 2.5 and is calculated from required courses with a DSN, DSNF or DSNM prefix.

**INTERIOR DESIGN CONCENTRATION**

**B.F.A. DEGREE 126**

The Interior Design Concentration provides a comprehensive education preparing students interested in professional interior design careers and its related industries. Students learn to identify, research, and solve interior design problems through a sequential series of courses that develop skills, creativity, and business practice knowledge. Students develop entry-level competencies for a variety of positions including those in corporate, education, healthcare, hospitality, retail, and residential design. This program is accredited by the Council for Interior Design Accreditation (CIDA).

**Core Curriculum Requirements 43/45**  
(See p. 71.)

All majors are required to take the following courses, and are encouraged to take them as part of their Core Curriculum requirements.

- PHIL 112
- ART 215
- SOCY 110
- SOCY 121
- ECON 105 or 106
- ART 216
- PSYC 121

**DSN Core 12**  
DSN 100, 110, 143, 173, 340

**DSN Design Support Courses 18**  
220, 223, 402

**DSNI Core** **53**  
 DSNI 103, 125, 200, 202, 205, 300, 305,  
 320, 322, 325, 341, 350, 355, 375, 400, 405,  
 407, 445

**Supporting Courses** **6**  
 COMS 114, 225, 230, 235, 240; FINC 251,  
 336; PHIL 310, 380; MGNT 250, 322, 350,  
 450; MKTG 343, 350; SOCY 339, 370;  
 PSYC 282, 347, 381, 429; THEA 100, 180,  
 200, 280, 332, 441; ANY ART

**Electives** **3/4**  
 Students following the Interior Design  
 Concentration should consult their advisor  
 in selecting electives to complete the 126  
 semester hours required for graduation.

**Total Credits for B.F.A. Degree** **126**

**Major Grade Point Average**

The GPA in-major must be 2.5 and is  
 calculated from required courses with a  
 DSN or DSNI prefix.

**MERCHANDISING FOR DESIGN  
 CONCENTRATION**

**B.S. DEGREE** **120**

The Merchandising for Design Concentra-  
 tion provides a comprehensive education and  
 prepares students for employment in manage-  
 ment, retailing, merchandising and auxiliary  
 fashion and interiors industries.

Students learn to identify, research, and  
 creatively problem solve through a series of  
 courses that develop knowledge, skills, and cre-  
 ativity. Students will combine this concentration  
 with courses in marketing.

**Core Curriculum Requirements** **43/45**  
 (See p. 71.)

All majors are required to take the following  
 courses, and are encouraged to take them as  
 part of their Core Curriculum requirements.

PHIL 112  
 ART 215  
 SOCY 110  
 SOCY 121  
 ECON 105  
 ART 216  
 PSYC 121

**DSN Core** **12**  
 DSN 100, 110, 143, 173, 340

**DSN Design Support Courses** **10**  
 DSN 220, 223, 402, 403

**DSNM Core** **38**  
 DSNM 107, 200, 205, 247, 300, 341, 345,  
 440, 442, 445; DSNF 350; DSNI 355;  
 MKTG 340

**B.S. Degree Requirements** **6**  
 MKTG 343, 360

**Electives** **10/11**  
 Students following the Merchandising for De-  
 sign Concentration should consult their advisor  
 in selecting electives to complete the 120 semes-  
 ter hours required for graduation”

**Total Credits for B.S. Degree** **120**

**Major Grade Point Average**

The GPA in- major must be 2.5 and is  
 calculated from required courses with a  
 DSN, DSNM, DSNF, or DSNI prefix.

**DESIGN MANAGEMENT  
 CONCENTRATION**

**B.S. DEGREE** **120**

The Design Management concentra-  
 tion provides a combination of design and  
 business fundamentals. This degree track  
 prepares students for management positions  
 in design related industries. Students learn  
 to facilitate, create, and maintain collabora-  
 tive relationships among designers, clients,  
 and administrators. Their contribution is an

essential factor in the success of their organizations in business, design firms, project management, or industry related organizations. Mandatory minors in entrepreneurship and management are embedded into this curriculum.

**CORE CURRICULUM REQUIREMENTS** **43/45**  
(See p. 71.)

All majors are required to take the following courses, and are encouraged to take them as part of their Core Curriculum requirements.

- PHIL 112
- ART 215
- SOCY 110
- SOCY 121
- ECON 105 or 106
- ART 216
- PSYC 121

**DSN Design Support Courses** **9**  
220, 223, 402

**Design Management** **34**  
DSNI 103 or DSNM 107 or DSNF 105; DSNI 341, 355, 445;  
DSNF 350; DSNM 442; MGNT 250, 322, 350, 450; MKTG 340, 360

**Support Electives** **6**  
Choose from: ACTG 211; ANTH 120, 301; COMS 114, 240, 225, 230, 235; LEAD 110; DSNF 200, 205 DSNI 125, 200 DSNM 200, 205.

**B.S. Required Courses** **6**  
ITEC 281, ECON 301

**Electives** **9-10**  
Students following the Design Management concentration should consult their adviser in selecting electives to complete the 120 semester hours required for graduation. Students

who take 6 of their elective credits in Marketing can also apply for a Marketing Minor.

**Total Credits for B.S. Degree** **120**

**Major Grade Point Average**  
The GPA in- major is 2.5 and is calculated from required courses with a DSN, DSNM, DSNF or DSNI prefix.

**DESIGN CULTURE CONCENTRATION**

**B.S. DEGREE** **120**

The Design Culture concentration provides an appreciation of design, art and culture enabling students to address issues relative to art, design history, and a broad range of cultural appreciation courses. Complementary studies in sociology, psychology, aesthetics, gender studies and business studies support, stimulate, and complement this concentration. Opportunities are in cultural fields such as galleries, museums, governmental or institutional arenas.

**Core Curriculum Requirements** **43/45**  
(See p. 71.)

All majors are required to take the following courses, and are encouraged to take them as part of their Core Curriculum requirements.

- PHIL 112
- ART 215
- SOCY 110
- SOCY 121
- ECON 105 or 106
- ART 216
- PSYC 121

**DSN Core** **12**  
DSN 100, 110, 143, 173, 340

<b>DSN Design Support Courses</b>	<b>12</b>	<b>Required Courses</b>	<b>6</b>
DSN 220, 223, 402; ARTH 420		DSN 110. Introduction to Design.	3
<b>Design Culture</b>	<b>19</b>	DSN 143. Business of Design.	3
DSNI 341, 355, 375, 445; DSNM 442; DSNF 350;		<b>Other courses may be selected</b>	<b>9</b>
Choose from: DSNF 105, DSNI 103, or DSNM 107		DSN 100. Design Fundamentals.	3
<b>Design Culture Support</b>	<b>9</b>	DSN 173. Design Psychology.	2
Choose from: SOCY 339, 370; RELN 205, 206; PHIL 310; THEA 100; 375, 376, 480; Any ART; Any Women's Studies		DSN 223. Textiles.	3
<b>BS Degree Requirement Credits</b>	<b>6</b>	DSNF 105. Introductory Studio.	3
DNCE 111; MUSC 104, 121, or 123		DSNF 350. History of Fashion Design I.	3
<b>Electives</b>	<b>18-19</b>	DSNF 355. History of Fashion Design II.	3
Students following the Design Culture con- centration should consult their adviser in selecting electives to complete the 120 se- mester hours required for graduation.		DSNI 103. Visual Thinking for Design.	3
<b>Total Credits for B.S. Degree</b>	<b>120</b>	DSNI 125. Technical Drawing.	3
<b>Major Grade Point Average</b>		DSNI 200. Sophomore Studio I.	3
The GPA in-major is 2.5 and is calcu- lated from required courses with a DSN, DSNM, DSNF or DSNI prefix.		DSNI 350. History of Interior Design I.	3
		DSNI 355. History of Interior Design II.	3
		DSNM 107. Visual Studio.	3
		DSNM 442. Economics of Design.	3

## HONORS PROGRAM

The Department of Interior Design & Fashion offers a departmental honors program. For a general description of the Honors Academy at Radford University, see p. 81.

For specific requirements of this department's program, contact the department chairperson or the director of the Honors Program.

## MINOR IN DESIGN APPRECIATION

15/17

A minor in Design Appreciation will provide an understanding of design's principles, theories and history allowing students to gain a basic knowledge of design and how design impacts our daily lives, where we work, create and live. Students must maintain a 2.5 GPA within the minor's course requirements, and overall, in order to receive the minor.

Students may earn a minor in Design Appreciation by completing the following 15 credit hour requirements:

## TRANSFER STUDENTS

Students wishing to transfer into the design program must indicate this major preference on the application for admission. Following acceptance into Radford University all transfer students applying for admission to the Department of Interior Design & Fashion, must submit a Transfer Student Portfolio Admissions Form and an ID&F Course Equivalency Form.

## OUTCOMES ASSESSMENT REQUIREMENTS

The department seeks to promote excellence and ensure the competency of each graduate by imposing routine progress requirements. Students must also pass department-wide Student Outcomes Assessment processes. All assessments have a minimum GPA requirements of 2.5 in major and 2.0 for the university. All discipline specific requirements must be met. **These assessments are completed outside the classroom environment.** The overall purpose of the Outcomes Assessment processes is to promote a high standard of excellence throughout the design major. These performance measures include:

- **Basic Skills Assessment** to proceed to second year: The first year sequencing of design courses include: an introduction to design, two-dimensional and three-dimensional design fundamentals including design process and theory, business of design, and design psychology;
- **Design/Merchandising Skills/Portfolio Review** to proceed to third year; The Design/Merchandising Skills/ Portfolio Review process in the second year is the primary stopgap for continuation in the design program. This second year review assesses a student's potential for success in upper-division courses. It should be noted that this evaluation is performance based and reflects the students' ability to use the design process, basic skills, and design/merchandising skills to successfully complete a range of design problems. Portfolio Review is an independent assessment based upon student outcomes. Review process results determine official entry to the upper level course offerings in Interior Design, Fashion Design, and Merchandising for Design. Failure to meet these standards will result in non-compliance of Second Year Review Requirements. Students not passing this review may choose to repeat the necessary courses or assessments the following year in order to repeat the review process. Students not passing this review may also
- choose to change their degree option to Design Management or Design Culture. The majority of the lower-level courses within the department are skill building courses and a portion of the final grade includes design process, discovery/information gathering, evaluation, critical thinking and progress. While these are valuable developmental assessments, they are not factored into the second year review. The second year review is an outcome-driven assessment only.
- The department recognizes the fact that high grades in the first two years of design coursework is not a full measure of how well a student will perform in the second year Design/Merchandising Skills/ Portfolio Review process.
- **Career Preparation and Professional Skills Review** to proceed with internship; All students in the major are required to take a pre-internship seminar class. This seminar class is a self-directed course that prepares students for their summer internship experience. This course prepares students to locate, obtain, and prepare for a summer internship opportunity. Students must pass this class and obtain the minimum GPA (noted above) to proceed to internship;
- **Internship Review** to proceed to fourth year; All design majors are required to successfully complete a specified number internship/ training hours and complete all requirements of the internship syllabi and internship site requirements/contracts during the summer after their third year of study prior to proceeding to their fourth year of classes. Students not passing this review may choose to repeat the internship class the following summer session;
- **Capstone Activity** to proceed to graduation. Students must obtain a C in their final capstone course or activity.

## MUSIC

**Al Wojtera\***, Chairperson  
<http://music.asp.radford.edu>

### UNDERGRADUATE PROGRAMS

The undergraduate professional programs in the Department of Music offer opportunities for students to prepare for careers as teachers of music in elementary, middle, and secondary schools, and also for careers in music therapy, the music business and for advanced professional graduate study. The undergraduate liberal arts program in the Department of Music offers opportunities for the study of music irrespective of specific career aspirations, for emphases which may meet the needs of individual students, and for preparation to study music at the graduate level. The department provides and promotes music activities for the university and community; and provides instruction and experiences in music for majors and non-majors, enhanced by multi-cultural/global perspectives and the benefits of new technology.

The Department of Music offers major degree programs at the undergraduate and graduate levels and a minor in music at the undergraduate level. Courses are also open to students whose primary interests are in other fields. Radford University is an accredited institutional member of the National Association of Schools of Music.

The curriculum in music therapy, which is in accordance with the recommendations established by the American Music Therapy Association (AMTA), provides eligibility to take the national certification exam administered by the Certification Board for Music Therapists (CBMT).

Students may pursue the music major leading to either a Bachelor of Music with a concentration in music education, music business or music therapy; a Bachelor of Arts; or a Bachelor of Science degree.

#### **Audition Requirement**

Prior to acceptance as a music major in an undergraduate music degree program, each prospective student must demonstrate their performance ability through an entrance audition. Those students whose performance abilities are determined to be comparable to university

level achievement, are assigned to Level 1 Applied Music, and are then eligible to major in music. Admission to the Department of Music as a music major is based on 1) acceptance to the university, and 2) a successful entrance audition. Audition dates are scheduled throughout the school year and posted on our department website. Information concerning audition requirements, forms for scheduling your audition, and our contact information, are all found on our department website.

#### **Applied Music Study**

Private applied music lessons are available to qualified music majors and non-majors in flute, clarinet, oboe, bassoon, saxophone, trumpet, horn, trombone, euphonium, tuba, percussion, piano, organ, voice, guitar, violin, viola, cello, string bass and composition at both undergraduate and graduate levels. Two credits per semester may be earned for a one-hour lesson per week. One credit may be earned for a one-half hour lesson per week.

Prior to registration each semester, students must have the approval of the Department of Music chairperson for placement.

Note: An applied music instruction fee is charged at the rate of \$250 per credit per semester. Applied music fees may be waived for level system applied lessons with the approval of the dean of the College of Visual and Performing Arts for students majoring in music. Fee waivers do not apply for MUSC 170, 470 or 670.

In the Level System of Applied Music Performance, quality of performance is stressed through minimum level requirements for each curriculum and evaluation of student performance by faculty juries. Students may attempt one performance level per two credits of applied music study.

The content of each performance area is divided into eight levels. Minimum requirements in technique (including sight reading, general facility, language, etc.) and repertoire (including requirements in variety, scope, level of difficulty, quantity, etc.), are outlined for each level. Each applied area has specific requirements and representative materials at each level. These requirements are on file in the Music Department office. Successful completion of requirements for each level will be determined by a faculty jury.

Jury examinations for Levels 3 and 6 are considered to be screening juries. (Level 4 will be the screening jury for transfer students placed in that level upon admission.) At Level 3 the purpose of the screening jury is to determine the student's progress for successful completion of applied music and music curricular degree requirements. At Level 6, the purpose of the screening jury is to determine the student's comprehensive grasp of all degree-related music skills and information. Screening juries will include a review of the student's current academic record.

### Level Requirements in Applied Piano

Level 2 in applied piano is required for the Bachelor of Music concentration in Music Therapy; and for the Vocal/Choral option in the Bachelor of Music concentration in Music Education. Completion of this requirement normally takes four semesters. Level 1 in applied piano is required for the Instrumental option in the Bachelor of Music concentration in Music Education. Completion of this requirement normally takes two semesters.

### Concert Attendance Requirement

Music majors are required to attend all departmental recitals and convocations (on Tuesday and Thursday mornings at 11 a.m.) as well as 10 other approved recitals or concerts each semester. Any exception to the above must be approved by the chairperson of the Department of Music. This requirement must be met a minimum of six semesters prior to graduation. A cumulative grade point average of 2.5 or above in all music courses taken at Radford University is required for graduation with a baccalaureate degree in music.

### Performing Ensembles

The following ensembles are open to all qualified music majors and non-majors:

MUSC 134. Jazz Combo.	1
MUSC 145. Chorus.	1
MUSC 147. Chorale.	1
MUSC 151. Chamber Orchestra.	1
MUSC 434. Jazz Ensemble.	1
MUSC 435. Percussion Ensemble.	1

MUSC 436. Guitar Ensemble.	1
MUSC 437. Digital Ensemble.	1
MUSC 450. Chamber Music Ensemble.	1
MUSC 455. Madrigal Singers.	1
MUSC 456. Radford Singers.	1
MUSC 457. Opera Workshop.	1
MUSC 458. Accompanying.	1

Regular ensemble experiences provide opportunities to develop artistic growth, technical skills, collaborative competence and knowledge of repertory. Music majors must enroll in at least one major ensemble each semester (summer sessions and student teaching semesters excepted) until degree requirements for ensembles are met. For at least one semester (prior to completion of applied level 6), the requirement must be satisfied in one of the following ensembles that includes coached, uncondacted performance experiences:

MUSC 151. Chamber Orchestra. (Fall semester only.)
MUSC 433. Advanced Jazz Combo.
MUSC 435. Percussion Ensemble.
MUSC 436. Guitar Ensemble.
MUSC 437. Digital Ensemble.
MUSC 450. Chamber Music Ensemble.
MUSC 455. Madrigal Singers.
MUSC 457. Opera Workshop.

No more than one major ensemble per semester may be counted toward degree requirements (transfer students who may graduate in fewer semesters than the number of ensembles required are excepted).

The Instrumental Option in the Music Education Concentration requires at least six (6) semester hours chosen from MUSC 151, 310, and 436. The Vocal/Choral Option in the Music Education Concentration requires at least six (6) semester hours chosen from MUSC 145, 147, and 456.

Ensemble Limits (maximum number of semesters that may be counted toward requirement):

Four semesters: MUSC 145, 147, 435, 455, and 457
Two semesters: MUSC 434
One semester: MUSC 433, 437, and 453

## TRANSFER STUDENTS

A total of 35 semester hours of required courses may be transferred from another institution as follows:

Music Theory.	12
Ear Training and Sight Singing.	4
First and Second Year Applied Music.	6
Introduction to Music Literature.	3
History of Music.	6
Large Ensembles.	4

Transfer students and students with degrees from other institutions seeking teacher licensure in music must take all other major degree requirements in music at Radford University. Exceptions may be granted by the Department of Music with the approval of the dean of the College of Visual and Performing Arts.

## MUSIC MAJOR

### B.M. DEGREE

Students pursuing a Bachelor of Music (B.M.) degree select one of the following concentrations: Music Education, with a vocal/choral or instrumental option; Music Therapy; or Music Business.

### MUSIC EDUCATION CONCENTRATION

All requirements for students selecting the Music Education Concentration are outlined below. The requirements include Music Core courses, Professional Education courses, and course work for one of two options (Vocal/Choral or Instrumental).

## INSTRUMENTAL OPTION

### Core Curriculum Requirements (See p. 71.) 43-45

<b>Music and Professional Core</b>	<b>86</b>
MUSC 111-418. Theory/Ear Training.	19
MUSC 100, 321-322. Music History.	6
MUSC 161:162. First Year Class Piano.	1:1
MUSC 127. Introduction to Computer Music.	3
MUSC 354. Introduction to Conducting.	2
MUSC 356. Instrumental Conducting.	3
MUSC 497. Undergraduate Recital. Applied Music (Level 6)	12
MUSC 352. Growth and Development of the Music Learner.	3
MUSC 353. Classroom Instruments.	
or	
MUSC 369:370. Fretboard Skills (Guitar Majors).	1
MUSC 446. Methods and Practicum for General Music.	3
MUSC 459. Methods and Practicum for Performing Ensembles.	3
MUSC 351. String Techniques.	1
MUSC 350, 348, 349. Brass, Woodwind, Percussion Techniques.	6
MUSC 364. Jazz Techniques I.	1
MUSC 360. Marching Band Techniques.	
or	
MUSC 369:370. Fretboard Skills (Guitar Majors).	1
Instrumental Ensembles. (minimum)	7
MUSC 462. Student Teaching in Music K-12.	12

### Total Credits Needed for Degree 129-131

## REQUIREMENTS FOR ADMISSION TO MUSIC TEACHER EDUCATION

Prior to taking MUSC 446 and MUSC 459, students must be formally admitted to the Music Teacher Education Program. The requirements for admission are:

- Successful screening interviews and review of dispositions before the Music Education faculty;

- All: MUSC 100, 127, 212, 215, 352, 353, Applied Major Level 4;
- Vocal/Choral: Applied Minor (Voice) Level 1 or MUSC 162 and 345;
- Instrumental: MUSC 162, 348, 349, 350 and 351;

### College of Education and Human Development Requirements

- Completion of 45 semester hours of course work;
- A minimum 2.5 grade point average on all college work,
- a 2.5 GPA on work at Radford, and a 2.5 GPA on all work attempted in the major;
- Passing scores on the basic skills tests required for licensure by the state of Virginia.

Professional Education 12  
 MUSC 462. Student Teaching (K-12). 12

Prior to student teaching (MUSC 462), music education majors must have completed the following courses with a grade of “C” or better:

All: Applied Major Level 6, MUSC 446 and MUSC 459

Vocal/Choral: Applied Minor (Voice) Level 2 or MUSC 262, 344 and 355

Instrumental: MUSC 346, 356, 360 and 364

The student teaching requirement is seven weeks in an elementary school setting (Kindergarten through Grades 5 or 6) and seven weeks in a secondary school setting (Grades 6 or 7 through Grade 12). Student teachers are expected to devote the bulk of their time and energies to meeting the commitments of student teaching. Other commitments (work, other university courses, personal responsibilities) are not considered acceptable excuses for failing to fulfill all the requirements of student teaching. If such interference occurs, the student teacher will be given the option of withdrawing from student teaching or making the personal adjustments necessary to give full attention to the program. Students must receive written permission from the Director of Music Education before

being permitted to schedule additional course-work during the semester of student teaching.

### VOCAL/CHORAL OPTION

#### Core Curriculum Requirements 43-45 (See p. 71.)

#### Music and Professional Core 79-83

MUSC 111:112, 211:212. Music Theory.	12
MUSC 114:115, 214:215. Ear Training and Sight Singing.	4
MUSC 418. Arranging and Orchestration.	3
MUSC 100, 321-322. Music History.	6
MUSC 161:162, 261:262. Class Piano.	4
MUSC 127. Introduction to Computer Music.	3
MUSC 354. Introduction to Conducting.	2
MUSC 355. Choral Conducting.	3
MUSC 497. Undergraduate Recital.	1
Applied Music (Level 6)	12
MUSC 352. Growth and Development of the Music Learner.	3
MUSC 353. Classroom Instruments.	
or	
MUSC 369:370. Fretboard Skills (Guitar Majors).	1
MUSC 446. Methods and Practicum for General Music.	3
MUSC 459. Methods and Practicum for Performing Ensembles.	3
MUSC 357. K-12 Vocal Pedagogy.	3
MUSC 216. Keyboard Harmony.	
or	
Pianists on Vocal Track may substitute MUSC 369:370. Fretboard Skills (1 credit) for 1 credit of MUSC 458.	
Accompanying.	1
Choral Ensembles. (minimum)	7
MUSC 462. Student Teaching in Music K-12.	12

**Total Credits Needed for Degree: 122-128**

MUSC 494. Internship in Music Business. 3-6  
Electives in MUSC. 3-6

## **MUSIC BUSINESS CONCENTRATION**

All requirements for students selecting the Music Business Concentration are outlined below. Among the requirements are Music, Business, and supporting courses. Please note that some hours required by the major also meet Core Curriculum requirements.

**Core Curriculum Requirements 43-45**  
(See p. 71.)

**Music Core 46-48**

Applied Music (Level 6) 12

MUSC 100. Introduction to Music Literature. \*

MUSC 111:112, 211:212. Music Theory. 12

MUSC 114:115, 214:215. Ear Training and Sight Singing. 4

MUSC 127. Introduction to Computer Music. 3

Choose 7 hours from: MUSC 131, 145, 147, 151, 431, 434, 435, 436, 455, 456, 457. 7

MUSC 161:162. First Year Piano Class. (not required of Keyboard majors.) 2

MUSC 321, 322. History of Music. 3,3

MUSC 354. Introduction to Conducting. 2

\* This course has been approved for Core Curriculum credit in Visual and Performing Arts.

**Music Business Core Courses 22-28**

MUSC 104. The Arts, Entertainment, and the Marketplace. 3

MUSC 308. Marketing the Arts. 3

MUSC 315. Contract and Copyright Law for Musicians. 3

MUSC 416. Fundraising and Finance for the Arts. 3

MUSC 404. Music Business Field Experience. 1:1

MUSC 391. Topics in the Arts and Entertainment. 1:1

**Business Minor 15-18**

All Music Business students must complete one of the following minors administered through the College of Business and Economics: Business Administration, Marketing, Management, or Entrepreneurship.

**Business Administration Minor 18**  
See p. 91 for course requirements.

**Marketing Minor 15**  
See p. 98 for course requirements.

**Management Minor 15**  
See p. 96 for course requirements.

**Entrepreneurship Minor 18**  
See p. 97 for course requirements.  
See p. 225 for course requirements. Six of the eighteen credit hours are satisfied as part of the Music Business major.

**Total Credits Needed for Degree 126-139**

## **MUSIC THERAPY CONCENTRATION**

All the requirements for a Music Therapy concentration are outlined below.

**Core Curriculum Requirements 43-45**  
(See p. 71.)

**Music Core 54-57**

Applied Music (Level 6) 12

MUSC 100. Introduction to Music Literature. \*

MUSC 111:112, 211:212. Music Theory. 12

MUSC 114:115, 214:215. Ear Training and Sight Singing. 4

MUSC 127. Introduction to Computer Music. 3

Choose 7 hours from: MUSC 131, 145, 147, 151, 431, 434, 435, 436, 455, 456, 457.	7
MUSC 161:162. First Year Piano Class. (not required of Keyboard majors.)	1:1
MUSC 216. Keyboard Harmony. (required of Keyboard majors only)	1
MUSC 261:262. Second Year Piano. (Not required of Keyboard majors.)	1:1
MUSC 350. Percussion Techniques. (not required of Percussion majors)	1
MUSC 257. Voice Class. (not required of Voice majors or minors)	1
MUSC 367:368. Guitar Class. (not required of Guitar majors or minors)	1:1
MUSC 321, 322. History of Music.	3,3
MUSC 354. Introduction to Conducting.	2
MUSC 418. Arranging and Orchestration.	3

\*This course has been approved for Core Curriculum credit in Visual and Performing Arts.

### Music Therapy Courses 27-38

MUSC 102. Fundamentals of Music Therapy.	3
MUSC 302. Clinical Orientation in Music Therapy.	8
MUSC 305. Music with the Disabled.	3
MUSC 375. Influence of Music on Behavior.	3
MUSC 420. Methods and Materials in Music Therapy.	3
MUSC 477. Music in Therapy.	3
MUSC 485. Psychology of Music. *(MUSC 485. Teach out through spring 2010.)	3
MUSC 493. Internship in Music Therapy.	1-12

### Supporting Courses 9

BIOL 322. Human Anatomy and Physiology.	6
PSYC 349. Abnormal Psychology.	3

### Total Credits Needed for Degree: 133-149

## MUSIC MAJOR

### B.A. or B.S. Degree

All requirements for music majors seeking a B.A. or B.S. degree in Music are outlined below.

### Core Curriculum Requirements 43-45 (See p . 71)

### Music Core 52-56

Applied Major – Level 6.	12
MUSC 100. Introduction to Music Literature.	3
MUSC 111:112:211:212. Theory I-IV.	12
MUSC 114:115:214:215. Ear Training and Sight Singing I-IV.	4
Choral or Instrumental Ensemble. (Chosen from MUSC 145, 147, 151, 310, 434, 435, 436, 455, 456, 457)	8
MUSC 161:162. Piano Class. (for non-keyboard majors only)	0-2
MUSC 321, 322. History of Music.	3,3
MUSC 417. Form and Analysis.	3
Music Electives	4-6

### B.A./B.S. Degree Requirements 6-12

### B.A. DEGREE 6-12

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 77 of this catalog.

### B.S. DEGREE 6-8

The B.S. degree requires completion of the B.S. Degree Cognate.

3-4 hours from Historical or analytical course(s) chosen from:

ART 215, 216, 366, 412, 422, 424, 427, 428, 444, 462, 482

ITEC 200- 300- or 400 level courses

DNCE 366, 480, 481

COMS 250, 339

THEA 235, 366, 375, 376, 475

ENGL, FREN, SPAN, HIST, PHIL 300- or 400-level courses

PSYC, LATN 400-level courses

3-4 hours from Fine Arts laboratory/performance course(s) chosen from:

ART 200- 300- or 400 level studio courses  
 DNCE 160, 260 and technique courses  
 THEA 105, 125

**Electives 15-23**

Students should consult with their advisors in selecting elective courses to complete the 120 semester hours needed for graduation. Suggested emphases include performance, composition, music technology and accompanying.

**Total Credits Needed for Degree 120**

**MUSIC MINOR**

Students may earn a minor in music by completing the requirements for one of the two options listed below.

**Music History and Literature Option 21**

- \*MUSC 100. Introduction to Music Literature. 3
- MUSC 111:112. Theory I:II. 3:3
- MUSC 321, 322. History of Music. 3, 3
- Music Electives 6

**Music Performance Option 21**

- Applied Music – Level 4. 8
- \*MUSC 100. Introduction to Music Literature. 3
- MUSC 111:112. Theory I:II. 3:3
- Choral and/or Instrumental Ensemble. 4
- (Chosen from MUSC 145, 147, 151, 310, 434, 435, 436, 455, 456, 457).

\*These courses also meet Core Curriculum requirements.

**HONORS PROGRAM**

The Music Department offers a departmental honors program. For a general description of the Honors Academy at Radford University, see p. 81. For specific requirements of this department’s program, contact the department chairperson or the director of the Honors Academy.

**GRADUATE PROGRAM**

The graduate program in music offers courses leading to a Master of Arts or Master of Science degree. The Master of Arts program provides advanced study for musicians and music scholars in preparation for professional careers or doctoral study. The Master of Science program provides advanced study and opportunities for music therapists and school music educators to refine existing competencies and to attain new ones. For complete information, consult the *Radford University Graduate Catalog*.

**SCHOOL OF DANCE AND THEATRE**

**Carl H. Lefko, Director**

**Margaret Devaney, Chair of the Division of Dance**

**Carl H. Lefko, Chair of the Division of Theatre and Cinema**

The School of Dance and Theatre offers liberal arts and pre-professional studies culminating in one of six degrees and two minors. Students of dance and theatre receive instruction rich in diverse perspectives and cross-disciplinary experiences. Both programs are supported by strong production programs which make significant contributions to the cultural life of the university and community.

**DANCE DIVISION**

The Dance Program provides a comprehensive pre-professional education for undergraduate dance majors in classical and contemporary dance; fosters an educational environment committed to dance as an autonomous and major art form realizing the many significant roles dance can play in world cultures; provides appropriate dance activities for the enrichment of the university, western Virginia, the Commonwealth of Virginia and beyond; and encourages creative and technological innovations in dance. The

department prepares students for careers, related careers and advanced professional studies in dance.

The department's curriculum offers students study in four areas of dance: technique, theory, pedagogy and choreography. In addition, students may develop special interest in the related fields of technical theatre, therapy, and/or somatics. Students may pursue a Bachelor of Arts, Bachelor of Science with Teacher Licensure in Dance Education, or Bachelor of Fine Arts degree in performance.

## ADMISSION REQUIREMENTS

To be accepted as a dance major an applicant must demonstrate through an audition sufficient ability for placement in first-or second-year dance courses. Auditions are scheduled at locations both on and off campus and must be arranged in advance through the division chairperson.

### B.A./B.S. DEGREE

All requirements for this degree and major are outlined below.

**Core Curriculum Requirements** 43-45  
(See p. 71.)

**Dance Core** 37

**Theory Requirements:** 18

DNCE 310. Study in Somatics. 3

DNCE 410. Accompaniment for Movement. 3

DNCE 465. Dance Production. 3

DNCE 470. Methods of Teaching. 3

DNCE 480. History and Philosophy of Dance I. 3

DNCE 481. History and Philosophy of Dance II. 3

Technique Requirements: 16

Eight semester hours of modern dance technique courses. 8

Eight semester hours of classical dance technique courses. 8

Composition Requirements: 3

DNCE 120. Dance Improvisation. 1

DNCE 220. Dance Composition. 2

**Dance Electives** 9

All majors are required to complete nine additional semester hours of courses and may select courses from the following areas: technique, composition, and performance.

**B.A. Degree Requirements** 6-12

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 77 of this catalog.

**B.S. Degree Requirements and Dance Education Certification** 21

HUMD 300. Child and Adolescent Growth and Development. 3

EDEF 320. Introduction to Professional Education. 3

DNCE 370. Creative Dance for Children. 3

EDUC 453. Student Teaching K-12. 12

**Electives** 8-25

Students should consult their advisors in selecting elective courses to complete the 120 semester hours required for graduation.

**Total Credits Needed for Degree** 120

### B.F.A. DEGREE

To be admitted to the Bachelor of Fine Arts program in dance, students must demonstrate a level of proficiency for intermediate study in ballet and modern technique classes. All requirements for this degree and major are outlined below.

**Core Curriculum Requirements** 43-45  
(See p. 71.)

<b>Dance Core</b>	<b>55</b>	<b>Dance Technique and/or Performance Courses</b>	<b>12</b>
<b>Theory Requirements:</b>	<b>18</b>	Dance Theory Courses	6
DNCE 310. Study in Somatics.	3		
DNCE 410. Accompaniment for Movement.	3		
DNCE 465. Dance Production.	3		
DNCE 470. Methods of Teaching.	3		
DNCE 480. History and Philosophy of Dance I.	3		
DNCE 481. History and Philosophy of Dance II.	3		
<b>Technique Requirements:</b>	<b>25</b>		
Eleven semester hours of modern dance technique.	11		
Twelve semester hours of classical dance technique.	12		
Two semester hours of jazz dance technique.	2		
<b>Composition Requirements</b>	<b>6</b>		
DNCE 120. Dance Improvisation.	1		
DNCE 220. Dance Composition.	2		
DNCE 320. Choreographic Studies I.	3		
Performance Requirements:	6		
DNCE 260. Production Participation.			
DNCE 365. Performance Practicum.			
<b>Dance Electives</b>	<b>15</b>		
All BFA majors are required to complete fifteen additional semester hours of courses and may wish to emphasize one of the following areas: classical technique or contemporary technique and choreography.			
<b>General Electives</b>	<b>5-7</b>		
Students should consult their advisors in selecting elective courses to complete the 120 semester hours required for graduation.			
<b>Total Credits Needed for Degree</b>	<b>120</b>		

**DANCE MINOR  
(18 semester hours)**

Students may earn a minor in dance by completing 18 semester hours of dance courses as follows:

**HONORS PROGRAM**

The Dance Department offers a departmental honors program. For a general description of the Honors Academy at Radford University, see p. 80. For specific requirements of this department's program, contact the division chairperson or the director of the Honors Program.

**THEATRE DIVISION**

The theatre program is an accredited institutional member of the National Association of Schools of Theatre. The program provides students with a comprehensive undergraduate curriculum emphasizing the study and practice of performance, design/technical theatre, history and cinematic arts, preparing a graduate to pursue a professional career in theatre or study on the post-baccalaureate level.

The theatre program provides a challenging variety of performance opportunities in major, studio, musical and children's theatre productions. Participation in productions is open to all students enrolled in Radford University.

Students in the department may earn either a B.A. or B.S. degree with a major in theatre and a minor in cinematic arts.

**DEPARTMENTAL REQUIREMENTS**

Theatre majors must meet the following program expectations:

- Student must be enrolled EACH semester for ONE of the following production courses: THEA 231, 232, 260, 360 or 476.
- Students who are on probation at the beginning of a semester will not be permitted to be cast or hold a major crew position during that semester.

Exceptions will be granted only if the position is directly required for a course in which the student is enrolled.

- The division requires all theatre majors to receive written permission from the division chair prior to auditioning, interviewing or accepting a role or position in any production or project outside of the division during the fall and spring semesters.
- Theatre majors must have a minimum grade point average of 2.5 in department courses for graduation.
- Theatre majors are required to attend monthly departmental meetings held the first Monday of each month.
- Theatre majors must complete all production assignments (a minimum of one per semester) and attend year-end reviews in order to remain in good standing as a major.

## B.A. OR B.S. DEGREE

### THEATRE MAJOR

All requirements for Theatre majors are outlined below. Students may elect to emphasize performance, design and technical theatre, cinema, or history and literature.

#### Core Curriculum Requirements 43-45

#### Theatre Core 36

THEA 201. Theatre Aesthetics.	3
THEA 231. Stagecraft.	3
THEA 232. Theatrical Lighting and Sound.	3
THEA 227. Acting I.	3
THEA 236. Makeup I.	3
THEA 260. Theatre Participation I.	2
THEA 330. Theatre Design I.	3
THEA 350. Directing I.	3
THEA 360. Theatre Participation II	-
or	
THEA 476. Production Practicum.	4
THEA 374. Survey of Drama.	3
THEA 375. Theatre History I.	3
THEA 376. Theatre History II.	3

### Theatre Electives For The Following Emphasis 9

All majors are required to complete nine additional semester hours of courses from the following emphases: performance, design and technical theatre, history and literature, or cinema.

#### Performance Emphasis:

THEA 297. Voice and Movement.	3
THEA 327. Acting II: Scene Study.	3
THEA 328. Acting III.	3
THEA 410. Voice and Speech.	3
THEA 336. Theatrical Makeup II.	3
THEA 366. Travel Study.	1-12
THEA 370. Playwriting.	3
THEA 425. Acting IV: Scene Study.	3
THEA 450. Directing II.	3
THEA 475. Theatre Problems.	3
THEA 476. Production Practicum.	1-3
THEA 478. Internship in Theatrical Production.	1-12
THEA 498. Independent Study.	1-6

#### Design and Technical Theatre Emphasis:

THEA 300. Sound Design for the Arts.	3
THEA 333. Theatre Design II.	3
THEA 334. Theatre Design III.	3
THEA 430. Theatre Design IV.	3
THEA 336. Theatrical Makeup II.	3
THEA 366. Travel Study.	1-12
THEA 475. Theatre Problems.	3
THEA 476. Production Practicum.	1-3
THEA 478. Internship in Theatrical Production.	1-12
THEA 498. Independent Study.	1-6

#### Theatre History and Literature Emphasis:

THEA 180. Introduction to World Cinema.	3
THEA 366. Travel Study.	1-12
THEA 370. Playwriting	3
THEA 498. Independent Study.	1-6

#### Cinema Emphasis:

THEA 180. Introduction to World Cinema.	3
THEA 260. Theatre Participation.	1
THEA 381. Cinematic Aesthetics.	3
THEA 366. Travel Study.	1-12
THEA 482. Documentary/Non-Fiction Films.	3

THEA 475. Theatre Problems.	3
THEA 476. Production Practicum.	3
THEA 478. Internship in Theatrical Production.	1-12
THEA 480. Film Theory and Criticism.	3
THEA 482. Documentary/Non-Fiction Films.	3
THEA 498. Independent Study.	1-12

**B.A. Degree 6-12**

Bachelor of Arts (B.A.) degree requires completion of the B.A. language requirements described on p. 77.

**B.S. Degree 8-9**

Students seeking a Bachelor of Science (B.S.) degree program must complete 8-9 semester hours in the following areas:

CVPA Historical or analytical course chosen from: 3  
 ART 215, 216, 448;  
 DNCE 480, 481;  
 MUSC 100, 111, 321 and 322.

Non-CVPA Analytical course chosen from: 3  
 PHIL 111, 113 or 380  
 ITEC 100.

CVPA Laboratory/performance course chosen from: 2-3  
 ART 204, 205, 207, 225, 250, 280, 303, 311, 450  
 DNCE 105, 120, 131, 180 (or higher);  
 MUSC 107, 257.

**Electives 18-26**

Students should consult with their academic advisor in selecting elective courses to complete the 120 semester hours required for graduation.

**Total Credits Needed for Degree 120**

**CINEMATIC ARTS  
 INTERDISCIPLINARY MINOR  
 (18 semester hours)**

Students may earn an interdisciplinary minor in Cinematic Arts by completing 18 semester hours in selected courses below.

**Cinematic Arts Core 12**

THEA 180. Introduction to World Cinema.	3
THEA 280. Foundations of Cinema Aesthetics.	3
COMS 335. Media and Society.	3
THEA 480. Film Theory and Criticism.	3

**Electives 6**

FREN 320. Topics in French Cinema.	3
COMS 247. Script Writing.	3
THEA 370. Playwriting.	3
THEA 380. Documentary/Non-Fiction Film.	3
COMS 434. Media Literacy.	3
COMS 451. Intercultural/International Communication.	3
COMS 452. International Film and Electronic Media.	3
SOCY 471. Society and Film.	3

All students who minor in Cinematic Arts must take the four core courses listed above as well as six elective credit hours. Students may choose from the list of approved electives indicated above or may select courses with significant cinema content in consultation with and approved by the Director(s) of the Cinematic Arts program. (These courses must be approved prior to registration.) Some courses may have departmental prerequisites for registration. Students who have declared Cinematic Arts as a minor will be exempt from prerequisites for courses in the departments of Media Studies and Theatre.

**THEATRE MINOR  
 (20 semester hours)**

Students may earn a minor in Theatre by completing 20 semester hours as shown below.

<b>Requirements</b>	<b>11</b>	<b>Theatre Electives</b>	<b>9</b>
THEA 260. Theatre Participation. (This is a one-credit repeatable course. See course description on p. 398.)	2	Students who adopt a minor in Theatre will receive an academic advisor for their minor.	
THEA 201. Theatre Aesthetics.	3		
THEA 227. Acting I.	3		
One of the following:			
THEA 231. Stagecraft.			
THEA 232. Theatrical Lighting and Sound			
THEA 236. Makeup I.	3		

# COURSE IDENTIFICATION, COURSES

The following section contains course descriptions. A course number indicates – in a general way – the difficulty and level of the student group for which the course is offered. Courses numbered 100 to 199 are primarily for freshmen; 200 to 299 for sophomores; 300 to 499 for juniors and seniors; 500 to 799 for juniors, seniors and graduate students. Students must attain sophomore standing (26 semester hours) before enrolling in any 300/400-level course. (See “Exception Policy, p. 67.)

The number in parentheses after the course title indicates the credit in semester hours. A hyphen (-) between the numbers of a course indicates no credit will be given until all of the course sequence is successfully completed.

A colon (:) between the numbers of the course and semester hours credit indicates credit will be given as each semester of the course is completed, and they must be taken in order.

A comma (,) between the numbers of a course and semester hours credit indicates credit will be given as each semester of the course is completed. The line following the course title and credit tells the number of lecture and laboratory hours a week. The third line gives the prerequisite, if any.

Following some course descriptions will be listed the semester in which the course is offered (fall, spring). When no semester (or semesters) is listed at the end of the course description, then in most cases that course is offered each semester during the academic year. However, students must consult with their academic advisors to ensure that a course will be offered the semester they would like to take it.

To obtain detailed information regarding a specific course, students may view the complete course syllabus for a specific course by accessing the course through the Radford University computer network.

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BLAW Business Law	250
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COBE Business and Economics	254
COED Counselor Education	254
COMS Communication and Media Studies	255
SOSD Communication Sciences and Disorders	262
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PEAC Peace Studies	361
PHIL Philosophy	361
PHSC Physical Science	364
PHYS Physics	364
POSC Political Science	366
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RCPT Recreation, Parks and Tourism	375
RELN Religious Studies	380
RUSS Russian	382
SOCY Sociology	383
SOWK Social Work	387
SPAN Spanish	389
STAT Statistics	391
THEA Theatre and Cinema	393
UNIV University 100	396
WMST Women's Studies	397

## ACCOUNTING

### **ACTG 211. Fundamentals of Financial Accounting.** (3)

Three hours lecture.

*Prerequisite: Sophomore standing.*

A comprehensive introduction to the fundamental concepts and procedures in accounting for proprietorships, partnerships and corporations. Emphasis is on the user perspective. ACTG 211 is a business core requirement.

### **ACTG 212. Fundamentals of Managerial Accounting.** (3)

Three hours lecture.

*Prerequisite: ACTG 211.*

Comprehensive introduction to the fundamental principles and procedures of accounting for managerial decision making, planning, control

and performance evaluation; ACTG 212 is a business core requirement.

Note: Business majors must have completed the pre-business program (p. 90) and have been admitted to a business major, in addition to having completed any specific prerequisite or corequisite courses to be eligible to take 300- or 400-level accounting courses.

### **ACTG 311. Cost Accounting.** (3)

Three hours lecture.

*Prerequisite: ACTG 212.*

Principles and procedures of determining cost in a manufacturing concern. Course devoted primarily to a study of job order, process and standard costing.

### **ACTG 312. Accounting Information Systems.** (3)

Three hours lecture and computer lab.

*Prerequisites: ACTG 212 and ITEC 100 or ITEC 281.*

Introduces students to Accounting Information Systems (AIS). Includes hands-on use of accounting software as well as theoretical study of the various accounting modules such as general ledger, accounts receivable and payroll. Software selections and current trends in AIS development also are discussed.

### **ACTG 313:314. Intermediate Accounting I and II.** (3:3)

Three hours lecture each.

*Prerequisite: ACTG 212.*

ACTG 313 treats topics of financial accounting such as future and present value concepts, cash, receivables, short-term investments and fixed assets. ACTG 314 is a comprehensive study of corporate equity accounts, long-term investments, pensions and leases, financial statement analysis and price level reporting.

### **ACTG 401. International Accounting.** (3)

Three hours lecture.

*Prerequisites: ACTG 212 and FINC 331.*

An introduction to the international dimensions of accounting, including the environment of international financial reporting, comparative accounting, international accounting standards, and accounting for multinational operations.

- ACTG 411. Federal Taxation.** (3) Three hours lecture.  
*Prerequisite: ACTG 212.*  
An introduction to the basic concepts and systems of federal income taxation applicable to individuals, corporations, and partnerships. Emphasis on the role taxes play in financial and managerial decision-making.
- ACTG 412. Advanced Taxation.** (3) Three hours lecture.  
*Prerequisite: ACTG 411.*  
Examines advanced topics relating to individual and entity taxation, tax research, exempt entities, and multijurisdictional tax issues.
- ACTG 413. Advanced Financial Topics.** (3) Three hours lecture.  
*Prerequisite: ACTG 314.*  
Special problems in accounting with emphasis on consolidations, parent and subsidiary accounting, branch accounting and non-profit accounting.
- ACTG 414. Auditing.** (3) Three hours lecture.  
*Prerequisites: ACTG 313 and senior standing.*  
Covers principally the attest function; the basic professional auditing standards and how they are applied by independent auditors, professional ethics, legal liability of auditors, preparation of auditing reports, and auditing techniques such as audit sampling.
- ACTG 415. Accounting Theory.** (3) Three hours lecture.  
*Prerequisite: ACTG 314.*  
Study of the development of accounting theory and its conceptual framework. Further theoretical exposure to and advanced problem solving of selected accounting topics.
- ACTG 416. Governmental and Not-For-Profit Accounting.** (3) Three hours lecture.  
*Prerequisite: ACTG 313 or permission of instructor.*  
Study of the theory and practice of accounting, budgeting, standard setting and financial reporting for governmental and not-for-profit organizations.
- ACTG 471. Special Topics in Accounting.** (1-4) One to four hours lecture.  
*Prerequisite: Approval of instructor.*  
Examines topics of special interest in accounting not covered in current course offerings. Can be taken more than once for a maximum of four hours credit.
- ACTG 472. Independent Study.** (1-4) Gives an individual student the opportunity to examine a topic of personal interest in depth. See "Independent Study" on p. 53.
- ACTG 488. Final Honors Project.** (2-3)  
*Prerequisites: Completion of business core, enrollment in the Honors Academy, senior standing, a minimum GPA of 3.5 or higher in all courses and in accounting.*  
Research project in accounting. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.
- ACTG 490. Accounting Internship.** (3)  
*Prerequisites: The student must be a junior or senior accounting major, a cumulative GPA of 2.5 or higher and permission of the instructor.*  
A one-semester program of work and studying the student's major area and/or career interest. Learning objectives, qualifications and hours of work approved by faculty coordinator and sponsoring agency. Final grade determined by supervising faculty. Graded A-F. Course may not be repeated for a better grade.  
For descriptions of graduate courses, please consult the *Radford University Graduate Catalog*.
- ANTHROPOLOGICAL SCIENCES PROGRAM**
- ANSC 101. Human Origins and Biocultural Evolution.** (3) Three hours lecture.  
This course serves as the introduction to the Anthropological Sciences and thus to the biocultural origin and evolution of the human species and human societies worldwide. It includes a survey of human and nonhuman primate

evolution and prehistory (including the methods and theories used by anthropologists to illuminate these subjects) and the emergence of fully modern humans in terms of their behavior and culture. The more recent evolution of societies as diverse as small-scale hunter-gatherers to more complex civilizations is also considered in the context of the biocultural factors that have shaped their development. Finally, students will be introduced to the range of modern applications in anthropological sciences, ranging from cultural resource management to forensic investigation. This course has been approved for credit in the Social and Behavioral Sciences Area of the Core Curriculum.

**ANSC 201. Introduction to Anthropological Research. (2)**

Two hours seminar.

*Prerequisite: ANSC 101 or permission of instructor.*

This seminar serves as an Introduction to the Anthropological Sciences major and prepares students for success in the major. Topics will include the nature of scientific inquiry in Anthropology as well as career options and resume preparation. Students will learn, through locating and reading the primary literature, to critically evaluate research in the discipline and receive the background and training necessary to conduct their own original research. Students cannot receive credit for both ANTH 497 and ANSC 201.

**ANSC 210/FOSC 210. Introduction to Forensic Anthropology. (3)**

Three hours lecture.

*Prerequisite: ANSC 101 or permission of instructor.*

Serves as an introduction to the field of forensic anthropology, the identification and analysis of human remains in a legal context. It includes a brief study of the major bones of the human body, their growth, development, variation, and initial treatment and examination. Through lectures, readings, and discussions, emphasis is placed on the major methods and techniques forensic anthropologists use to identify unknown human remains for law enforcement, including preliminary discussions of determination of age,

sex, ancestry, and stature from the human skeleton. It also includes discussions of determination of time since death (or postmortem interval), manner of death, as well as differentiating antemortem, perimortem, and postmortem trauma. The role of the forensic anthropologist in mass disasters and human rights abuse cases is also considered. Students cannot receive credit for both ANTH 230 AND ANSC 210.

**ANSC 211/FOSC 211. Forensic Archaeology. (3)**

Three hours lecture.

*Prerequisite: ANSC 101 or permission of instructor.*

An introduction to the major methods of forensic archaeology, the application of archaeological theory and method to crime scene investigation and recovery. A focus will be on field methods for search and recovery of human remains and other forensic evidence, including mapping and geophysical remote sensing methods, initial recognition and excavation of human and other forensic remains, and collection of soil, botanical, and entomological evidence. Through a combination of lecture and field exercises, the course will also consider the major variables which affect recognition and recovery of forensic remains, including the taphonomic effects of weathering, natural decay, water, fire, faunal and floral degradation. Students cannot receive credit for both ANTH 232 and ANSC 211.

**ANSC 301. Principles of Archaeology. (4)**

Three hours lecture; two hours laboratory.

*Prerequisite: ANSC 101 or permission of instructor.*

This course considers the methods and theories that archaeologists use to interpret past lifeways of prehistoric and historic human cultures. Case studies of past cultures are also discussed to provide current information on these cultures and to serve as examples of archaeological research. The lab component will focus on giving students hands-on experience in basic field and laboratory methods in archaeology. Students cannot receive credit for both ANTH 122 and ANSC 301.

**ANSC 302. Principles of Biological Anthropology. (4)**

Three hours lecture; two hours laboratory.

*Prerequisite: ANSC 101 or permission of instructor.*

This course is an overview of biological anthropology. Biological anthropology studies the adaptations, variability, and evolution of human beings and their living and fossil relatives. Topics to be covered include basic genetics and heredity, primate behavior and taxonomy, human osteology, human evolution, human variation and adaptation, bioarchaeology, and forensic anthropology. The laboratory component provides students with hands-on experience with this material. Students cannot receive credit for both ANTH 120 and ANSC 302.

**ANSC 303. Quantitative and Computer Methods in Anthropology. (4)**

Two hours lecture; two hours laboratory.

*Prerequisites: ANSC 201 and ANSC 301 or ANSC 302 or permission of instructor.*

Through hands-on training with real and demonstrative data sets, students will learn a wide range of quantitative analytical techniques most frequently used in the field of anthropology. Course topics include basic computer methods, concepts of sampling and probability, and univariate and multivariate statistical analysis. Students cannot receive credit for both ANTH 482 and ANSC 303.

**ANSC 320. Human Osteology. (4)**

Three hours lecture; three hours laboratory.

*Prerequisite: ANSC 302 or ANTH 120, or permission of instructor.*

An examination of the human skeletal system, including discussions of the nature and functions of bone, techniques for the identification of bone, and methods of study of human bone in an anthropological as well as forensic (legal) context. Students cannot receive credit for both ANTH 320 and ANSC 320.

**ANSC 321. Archaeological Field and Lab Methods. (3)**

Three hours lecture.

*Prerequisite: ANSC 201 and ANSC 301; or ANTH 122 and ANTH 222; or permission of instructor.*

This course provides advanced training in field and laboratory methods in archaeology. It includes limited field investigations, training in the processing and analysis of both prehistoric and historic artifact collections, and the preparation of original reports summarizing these analyses.

**ANSC 330. Primatology. (3)**

Three hours lecture.

*Prerequisites: ANSC 101 and 201, or ANTH 120 or permission of instructor.*

A survey of both living and past primates as unique members of the animal kingdom. It includes discussions of general primate characteristics, taxonomy of living primates, primate behavior and primate (including human) evolution. Students cannot receive credit for both ANTH 330 and ANSC 330.

**ANSC 333. World Prehistory. (3)**

Three hours lecture.

*Prerequisites: ANSC 301 and ANSC 201, or ANTH 122, or permission of instructor.*

A survey of the world's prehistoric cultures, from the earliest human cultures to the beginning of complex civilizations. The focus is on humans' adaptation to their environment through culture and the changes in these adaptations over time. Students cannot receive credit for both ANTH 332 and ANSC 333.

**ANSC 361. Human Impacts on the Prehistoric Environment. (3)**

Three hours lecture.

*Prerequisites: ANSC 101 and sophomore standing, or permission of instructor.*

This course introduces students to the archaeological study of how human activities impact the natural environment. The course focuses primarily on a series of prehistoric case studies drawn from many regions of the world.

**ANSC 401. Anthropological Theory. (3)**

Three hours lecture.

*Prerequisites: ANSC 201, ANSC 301 and ANSC and 302, or permission of instructor.*

The study of anthropological theories which provide explanations for human biocultural evolution and variation. Both classical and

current theories in the Anthropological Sciences relating to behavior and biological evolution are examined and their relationships explored. Students cannot receive credit for ANSC 401 if they have received credit for ANTH 441 or ANTH 322.

**ANSC 410. Paleoanthropology. (3)**

Three hours lecture.

*Prerequisite: ANSC 201, ANSC 301 or ANSC 302, or permission of instructor.*

Reviews the fossil evidence for human evolution, with an emphasis on past and present scientific principles governing the study of human origins and the interaction of culture and biology in human evolutionary development. The archaeological record as it pertains to our human past is also explored. Students will critically examine major controversies in human evolution from a biocultural perspective. Students cannot receive credit for both ANTH 410 and ANSC 410.

**ANSC 420/FOSC 420. Advanced Forensic Anthropology. (4)**

Three hours lecture; three hours laboratory.

*Prerequisites: ANSC 201, ANSC 210/FOSC 210, and ANSC 320; or ANTH 120, ANTH 230, ANTH 320; or permission of instructor.*

Offers advanced hands-on experience and training in the identification of unknown human skeletal remains. Students will conduct skeletal analyses focusing on basic vital statistical parameters like age, sex, race, and stature. Other topics reviewed will include the role of the forensic anthropologist in crime scene investigation and recovery of skeletonized human remains, determination of time since death, skeletal trauma and pathology, and special techniques in forensic anthropology. Students cannot receive credit for both ANTH 420 and ANSC 420.

**ANSC 430. Bioarchaeology. (3)**

**Three hours lecture.**

*Prerequisites: ANSC 201 and ANSC 302 or permission of instructor.*

This course is an introduction to the discipline of Bioarchaeology, the application of biological anthropology techniques to questions of an

archaeological nature. Classes will be a combination of lecture, laboratory, seminar discussion, and student presentations.

**ANSC 488. Final Honors Project. (3)**

*Prerequisites: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 cumulative GPA in all anthropological sciences, or permission of instructor.*

Students conduct research and write a thesis for a bachelor's degree with honors in Anthropological Sciences. In order to receive honors credit, the student must receive a grade of "A" or "B" for the thesis. Course may not be repeated.

**ANSC 493. Field School in Archaeology. (3-6)**

Field course: 40 hours a week.

*Prerequisites: ANSC 301 or ANTH 122 or permission of instructor.*

Emphasis on practical field experience in archaeology. Surveys and excavations are conducted on both prehistoric and historic sites and students learn the mapping, recording, and field artifact identification techniques that are the basis of archaeology. Summer. No more than 12 hours of credit from ANSC 493, ANSC 498, and ANSC 499 may be counted toward the 38 hours for the anthropological sciences major.

**ANSC 495. Seminar in Anthropological Sciences. (1-4)**

Meets one to four hours weekly.

*Prerequisite: ANSC 201 or permission of instructor.*

Reading and/or research focusing on specialized topics in the Anthropological Sciences. May be repeated for the major for a total of eight hours credit when topics differ. Only four hours may be applied to minor requirements.

**ANSC 496. Seminar in Biological Anthropology. (3-4)**

Three to four hours lecture

*Prerequisite: ANSC 201 or permission of instructor.*

Reading, research, and/or lectures focusing on specialized topics in biological anthropology selected by department faculty. This course may be repeated for credit as long as topics vary.

**ANSC 497. Seminar in Archaeological Anthropology. (3-4)**

Three to four hours lecture

*Prerequisite: ANSC 201 or permission of instructor.*

Reading, research, and/or lectures focusing on specialized topics in archaeology selected by department faculty. This course may be repeated for credit as long as topics vary.

**ANSC 498. Independent Study. (1-6)**

See “Independent Study” on p. 53.

No more than a total of twelve hours credit from ANSC 493, ANSC 498, and ANSC 499 may be counted toward the 38 hours for the anthropological sciences major.

**ANSC 499. Internship. (3-12)**

*Prerequisites: Students must complete 12 hours of Anthropological Sciences and have permission of the program coordinator.*

Students must obtain approval from the Anthropological Sciences program director regarding the proposed program and agency—this should occur in the semester preceding that in which the internship is anticipated. The course may carry 3 to 12 hours credit a semester and may be repeated to a maximum of 12 hours credit. No more than a total of 12 hours credit from ANSC 493, ANSC 498, and ANSC 499 may be counted toward the 38 hours for the anthropological sciences major. Offered as needed.

## **APPALACHIAN STUDIES**

**APST 200. Introducing Appalachia. (3)**

Three hours lecture.

Introduces the Appalachian Mountain region through a survey of its geography, history, cultures, lifestyles, and the arts. Readings, discussions, and multi-media presentations on the above topics will be supplemented by library and field research. The class is designed to create an overall awareness and appreciation of life in Appalachia. Required for Appalachian Studies minor. This course has been approved for Core Curriculum credit in Social and Behavioral Sciences or U.S. Perspectives.

**APST 460/560. Seminar: Current Issues in Appalachian Studies. (3)**

Three hours lecture.

This seminar focuses on a designated topic of current interest in Appalachian Studies and is designed to give students in-depth exposure both in the classroom and in the field. Topic examples include mountaintop removal, coalfield labor practices, cultural attachment to place, Appalachian-Scottish-Irish connections, Appalachia and the media. The course will serve as a capstone for the Appalachian Studies minor and as a complement for a variety of majors. May be repeated for credit when content differs. Required for Appalachian Studies minor. May be used to fulfill B.S. requirement for some majors.

**APST 480. Appalachian Studies Internship. (3-15)**

*Prerequisites: Junior or senior standing; 2.0 minimum overall grade point average and permission of instructor.*

Each hour of credit will require a total of forty hours on the job. Course counts up to three hours toward fulfillment of course requirements for an Appalachian Studies minor. One-semester internship with public or private agency in Appalachia. Student will receive academic and agency supervision. The course will be graded on a pass/fail basis.

**APST 495. Research in Appalachia. (1-4)**

*Prerequisite: Permission of instructor.*

**APST 498. Independent Study. (1-6)**

Will vary as topics vary. See “Independent Study” on p. 53.

## **ART**

In the Art course descriptions, please note the following course designations: courses listed as 2-D are two dimensional studio courses; courses listed as 3-D are three dimensional studio courses; courses listed as AH are Art History courses; and courses listed MS are Museum Studies.

**ART 101. 2-Dimensional Art Foundations.**

(3)

Four hours lecture, demonstration, exercises, studio projects and critiques regarding two dimensional principles and elements of design including color theory. Recommended to be taken before any other studio art course.

**ART 102. 3-Dimensional Art Foundations.**

(3)

Four hours lecture, demonstration, exercises, studio projects, and critiques regarding 3 dimensional design elements and principles. Recommended to be taken before any other studio art courses.

**ART 110. Basic Computer Skills for the Fine Artist.**

(3)

Two hours lecture; two hours laboratory. Students will gain a basic working knowledge of various computer programs as tools for art making. Hands-on computer production and basic skill acquisition will be balanced with an awareness of the human interface between machine and user. Lectures will introduce theories, films, and ideas on how technology affects changes in the fine arts and society at large. Students will not only gain technical skills but methods of thinking and reflecting on how electronic technology, sound, sight and motion influence the fine arts field.

**ART 111. Art Appreciation.**

(3)

Three hours lecture. An introduction to the visual arts designed to develop students' visual awareness. This course has been approved for Core Curriculum credit in Visual and Performing Arts.

**ART 204. Sculpture.**

(3)

One hour lecture, demonstration or critique; three hours studio. (3-D) Explores basic sculptural concepts and methods. May be taken twice for a total of six hours credit.

**ART 205. Drawing.**

(3)

One hour demonstration, lecture or critique; three hours studio. (2-D) Introduction to visual concepts. Development of skills needed to produce expressive drawings. May be taken twice for a total of six hours credit.

**ART 207. Ceramics.**

(3)

One hour demonstration, lecture or critique; three hours studio. (3-D) Introduction to hand building and wheel throwing skills; techniques of glaze formulation, development and application. May be taken twice for a total of six hours credit.

**ART 212. 2-D Media, Materials, and Techniques for the Classroom.**

(3)

Two hours lecture; two hours laboratory. (2-D)

*Prerequisite: Sophomore standing for Art Ed majors; prerequisite may be waived for education majors outside the visual arts department.*

Demonstrations, exercises, studio projects, which explore the elements and principles of design and media, and techniques used in the production of two-dimensional art for future classroom practitioner.

**ART 213. 3-D Media, Materials, and Techniques for the Classroom.**

(3)

Two hours lecture; two hours laboratory. (3-D)

*Prerequisite: Sophomore standing for Art Ed majors; prerequisite may be waived for education majors outside the visual arts department.*

Demonstrations, exercises, studio projects, which explore the elements and principles of design and media and techniques used in the production of three-dimensional art for the future classroom practitioner.

**ART 215. Art History Survey: Prehistory to Gothic.**

(3)

Three hours lecture. (AH)

A survey of art through a study of styles, iconography, media, and terminology within a broad cultural context. The course covers prehistory through Gothic, with emphasis on western art. This course has been approved for Core Curriculum credit in Visual and Performing Arts.

**ART 216. Art History Survey: Renaissance to Contemporary.**

(3)

Three hours lecture. (AH)

A survey of art through a study of styles, iconography, media, and terminology within a

broad cultural context. The course covers the Renaissance through the 20th century, with an emphasis on western art. This course has been approved for Core Curriculum credit in Visual and Performing Arts.

**ART 220. Painting. (3)**

One hour lecture, demonstration or critique three hours studio. (2-D)

Introduction to the basic concepts of oil painting. Development of the skills needed to produce effective, expressive paintings. May be taken twice for a total of six hours credit.

**ART 225. Watercolor Techniques. (3)**

One hour lecture, demonstration or critique; three hours studio. (2-D)

Introduction to the basic concepts of watercolor painting. Development of skills needed to produce effective, expressive watercolors May be taken twice for a total of six hours credit.

**ART 241. Elementary Art Education Theory and Practice. (3)**

Two hours lecture, two hours laboratory. History, philosophy, principles, practices and materials of teaching art in public elementary schools.

**ART 242. Secondary Art Education Theory and Practice. (3)**

Two hours lecture, two hours laboratory. History, philosophy, principles, practices, and materials of teaching art in public secondary schools.

**ART 250. Photography. (3)**

One hour lecture, three hours laboratory. (2-D)

Introduction to basic black and white art photography. Use of camera and darkroom equipment. Film exposure and development. Development of printing skills. Analysis of aesthetic criteria and examination of historical figures.

**ART 280. Introduction to Graphic Design. (3)**

One hour lecture, demonstration or critique; three hours lab. (2-D)

Introduces basic design theory, current materials and technologies of graphic design.

**ART 281. Graphic Design Production Techniques. (3)**

One hour lecture, demonstration or critique; three hours lab. (2-D)

*Prerequisite: ART 280.*

Development of design problem solving skills and current electronic file pre-press preparation. Basic production for professional and desktop printing.

**ART 282. Typography and Layout Design. (3)**

One hour lecture; three hours lab. (2-D)

*Prerequisite: ART 280 or permission of instructor.*

A study of design aesthetics, the visual organization of information and use of basic letter forms, typographic contrast, hierarchy of information, major type families and typographic grids. Projects allow students to experiment with type from a variety of approaches and examine its possibilities as expressive form in relation to syntax and visual communication.

**ART 302. Exhibition Fundamentals. (3)**

Three hours lecture or seminar. (MS)

Investigates the management of the visual arts. An upper-level course intended for students seeking a concentration in art history and museum studies.

**ART 303. Jewelry and Metalworking. (3)**

One hour lecture, demonstration or critique; three hours studio. (3-D)

Introduction to techniques such as forming, stone setting, surface embellishment and casting. Emphasis on creative design and craftsmanship.

**ART 305. Figure Drawing. (3)**

One hour demonstration, lecture or critique; three hours studio. (2-D)

*Prerequisite: ART 205.*

Introduction to figure drawing starting with basic studies of anatomy and concluding with practice in skills that develop expressive drawings using the figure. May be taken twice for a total of six hours credit.

**ART 311. Digital Photography for the Fine Arts.** (3)

One hour lecture, demonstration or critique; three hours studio. (2-D or 3-D, consult professor for distinction)

*Prerequisite:* ART 250 or permission of instructor.

Provides the technical skills needed for art students to explore digital options in photographic image making. Besides digital manipulation and printing of photographs, students will explore several methods of digital presentation such as CD-Rom portfolios and simple web exhibitions. Another option is preparing photographic images for video editing and animation. Includes basic understanding and use of the digital camera. Digital cameras are recommended, but not required.

**ART 323. Printmaking.** (3)

One hour lecture, demonstration or critique; three hours studio. (2-D)

History of printmaking and development of skills essential to expressive and effective printmaking in one of the traditional printing techniques: intaglio, lithography, relief and silk-screening. Experiences in historical and contemporary processes and materials. May be taken twice for a total of six hours credit.

**ART 340. Clinical Experience in Art Education.** (3)

Three hours assigned clinical experience in public school per week, two hours lecture per week. Combined study and art classroom assistance experience in art education.

**ART 360. Video Art.** (3)

One hour lecture; three hours studio. Deals with the experimental nature of video as an art form, its history, and its unique approach to technology. Video production will also involve new digital/computer technology and multimedia presentation. Students will experiment with a variety of approaches and produce a final product for exhibition.

**ART 366. Art History Travel Study.** (AH) (3-6)

An academic course involving domestic and/or international travel. Students will participate in the discussion of works of art and

architecture. One of the goals of the course is to allow students to understand better and relate to another culture by experiencing it firsthand. May be taken again for credit with different topics or areas of study.

**ART 370. Animation Art.** (3)

One hour lecture; three hours studio. (2-D or 3-D, consult professor for distinction).

Explores animation as a means of creative expression for the visual artist. Various methods (involving the use of paper cell, cut out, clay and electronic tools) are utilized within the framework of contemporary animation art processes.

**ART 371. Three Dimensional Computer Art.** (3)

One hour lecture, demonstration or critique; three hours lab (3-D)

*Prerequisite:* Art 280, 281 or permission of instructor.

Production for print, web, and video of 3-D digital art and animation. May be taken twice for a total of six hours credit.

**ART 380. Intermediate Graphic Design.** (3)

One hour lecture, demonstration or critique three hours lab. (2-D)

*Prerequisite:* ART 280, 281 or permission of instructor.

Visual problem solving for graphic designers encompassing illustration, photography and typography in a page layout for print media. Client relations, presentation and professional practice for graphic designers.

**ART 381. Graphic Design for the Web.** (3)

One hour lecture, three hours lab (2-D)

*Prerequisite:* ART 280 and 281 or permission of the instructor.

Visual problem solving for graphic designers relating to illustration, typography, page layout and site design for the web.

**ART 403. Advanced Jewelry and Metalworking.** (3)

One hour lecture, demonstration or critique; three hours studio. (3-D)

*Prerequisite:* ART 303.

Continued development in metalworking with

emphasis on design and craftsmanship. May be taken multiple times for credit.

**ART 404. Advanced Sculpture. (3)**

One hour lecture, demonstration or critique; three hours studio. (3-D)

*Prerequisite: ART 204.*

Exploration of advanced concepts and methods of sculpture. May be taken multiple times for credit.

**ART 405. Advanced Drawing. (3)**

One hour lecture, demonstration or critique; three hours studio. (2-D)

*Prerequisite: ART 305.*

Builds upon the fundamental competencies acquired in ART 205 and ART 305 by developing drawing behaviors of a more expressive nature and higher technical level. May be taken multiple times for credit.

**ART 406. Selected Topics in Studio Art. (3)**

One hour lecture, demonstration or critique; three hours studio. (2-D or 3-D depending upon topic, consult with professor.) An in-depth study of a specialized studio activity that is not a significant part of the content of a regularly scheduled studio course. May be taken multiple times for credit.

**ART 407. Advanced Ceramics. (3)**

One hour lecture, demonstration or critique; three hours studio. (3-D)

*Prerequisite: ART 207.*

Emphasis on original glazes and clay bodies and kiln firing techniques. May be taken multiple times for credit.

**ART 414. Packaging and 3-D Design. (3)**

One hour lecture, demonstration or critique; three hours studio.

*Prerequisites: ART 280 and 281 or permission of instructor.*

Assignments in packaging and 3-D design for commercial and/or personal development. May be taken multiple times for credit.

**ART 415. Illustration. (3)**

One hour lecture, demonstration or critique; three hours studio.

*Prerequisites: ART 280 and 281 or permission of instructor.*

2-D traditional and/or electronic illustrative problems and solutions for commercial or personal development. May be taken multiple times for credit.

**ART 420. Advanced Painting. (3)**

One hour lecture, demonstration or critique; three hours studio. (2-D)

*Prerequisite: ART 220 or ART 320.*

Emphasis on building visual and aesthetic skills for the development of paintings of a high level of technical and artistic merit. May be taken multiple times for credit.

**ART 423. Advanced Printmaking - Graphics. (3)**

One hour 1 lecture, demonstration or critique; three hours studio. (2-D)

*Prerequisite: ART 323.*

History of printmaking; advanced exercises in traditional and contemporary printmaking techniques, processes, and materials. May be taken multiple times for credit.

**ART 425. Advanced Watercolor Techniques. (3)**

One hour lecture, demonstration or critique; three hours studio. (2-D)

*Prerequisite: ART 225.*

Advanced studio problems in watercolor techniques. May be taken multiple times for credit. the 20th century emphasizing chronological evolution, themes, and visual forms.

**ART 429. History of Graphic Design. (3)**

Three hours lecture. (AH)

*Prerequisites: ART 280 and 281 or permission of instructor.*

A one-semester survey of key points in the historical development of the graphic design field.

**ART 437. Technology, Art, and Vision. (3)**

Three hours lecture. (AH)

Throughout history artists have explored the technological, philosophical, and scientific advancements of their age to create new ways of seeing and perceiving. This course explores how artists experiment with new technologies to challenge our perceptions of reality, question the role technology plays in our society as well as explore new methods and theories of image making.

**ART 450. Advanced Photography. (3)**

One hour lecture, three hours laboratory. (2-D)

Advanced work with cameras and equipment used in black and white art photography. Sequential imagery, panoramas, multiple printing and advanced darkroom techniques. May be taken multiple times for credit.

**ART 480. Publication Design. (3)**

One hour lecture, demonstration or critique; three hours lab. (2-D)

*Prerequisite: ART 281 and ART 282, or permission of instructor.*

Graphic design of large and/or complex publications such as annual reports and coordinated print pieces, books, and technical manuals for professional offset print reproduction. Extensive practice in electronic file preparation with management of large and complex layouts and high resolution images.

**ART 481. Advanced Graphic Design Production Techniques. (3)**

*Prerequisites: ART 281, senior standing, or permission of instructor.*

Advanced version of ART 281: Graphic Design Production Techniques and focuses on the professional development of the student's portfolio, time management, software, and presentation skills. It is targeted to the motivated senior-level graphic designer. The class meets on a TBA schedule, usually five times during the course of the semester. The student is given a list of projects in Adobe Illustrator and Adobe Photoshop, then must meet the deadlines for finished work, which is presented during scheduled critiques. This class will also be offered for graduate credit.

**ART 483. Portfolio Preparation and Studio Management for Graphic Designers. (3)**

One hour lecture, three hours lab. (2-D)

*Prerequisites: ART 280, 281 and 381 or permission of the instructor.*

Graphic design issues relating to personal web sites, CD portfolio and related print materials, as well as the organization and business practices of professional working environments.

**ART 484. Graphic Design Seminar. (1)**

One hour seminar.

*Prerequisites: ART 280, ART 281, and senior standing.*

Focuses on a variety of topics and trends in graphic design. Emphasis will be placed on professional level research, presentation, and discussion in a group atmosphere.

**ART 488. Final Honors Project. (2-3)**

*Prerequisites: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, major in art, senior standing at beginning of semester in which project is to be completed, a minimum 3.5 GPA overall and in art.*

This project and the topic to be explored will be determined by the student, the faculty member with whom the student works and the student's major program area. (Honors project may be a written or performance-based project.) In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated or retaken.

**ART 490. Graphic Design Practicum. (15)**

*Prerequisites: ART 380 and/or permission of a departmental committee, senior standing and a 2.75 overall average. (2-D)*

A one-semester, full-time apprenticeship in one or more professional graphic design settings, such as an advertising, printing, or design firm. Individual arrangement and supervision.

**ART 492. Museum Practicum. (MS) (3)**

*Prerequisite: ARTH 401 with a "C" or better.*

Academic knowledge with hands-on field experience in an on-campus museum facility and to put into practice knowledge and theories essential for competency in museum work.

**ART 493. Museum Internship. (MS) (3-6)**

*Prerequisite: ARTH 401.*

Integrates academic knowledge with hands-on field experience in an off-campus museum facility and puts into practice knowledge and theories essential for competency in museum work. May be repeated for credit.

**ART 494. Internship. (3 or 6)**

*Prerequisites: Junior standing, 3.0 GPA in concentration, and permission of instructor.*

In close collaboration with a supervising professor the student will arrange outside employment working in their field concentration, such as Graphic Design or Jewelry. By working in an actual job situation, the student will gain valuable real world experience, portfolio work, and possible future job contacts. May be taken only once for credit.

**ART 498. Independent Studies. (1-6)**

See "Independent Study" on p. 53.

*For descriptions of graduate art courses, please consult the Radford University Graduate Catalog.*

## **ART HISTORY**

**ARTH 316. Art Outside the Western Tradition. (3)**

Three hours lecture/discussion.

*Prerequisites: ART 215 and 216 or permission of instructor. Recommended: ARTH 400.*

A study in recognizing, understanding, and appreciating the art and architecture of one or more culture(s) outside the European tradition from a non-Eurocentric point of view. A focus on art forms as multireferential. The content of the course will vary depending on the culture(s) studied. May be repeated for credit with different topics with permission of the instructor. Students can not receive credit for both ART 486 and ARTH 316.

**ARTH 400. Theory, Methods and Writing in Art History. (3)**

Three hours lecture and seminar.

*Prerequisites: ART 215 and 216 or permission of instructor.*

Art historians use a variety of critical methodologies in their work. The dominant theories

of analysis have changed over time, sometimes in response to developments in other fields and sometimes in response to changes in art. This course will familiarize students with these theories and methods, focusing on the ways in which art historians arrive at their interpretations. Students can not receive credit for both ART 446 and ARTH 400.

**ARTH 401. Cabinets of Curiosity: The History, Criticism and Aesthetics of Museums. (MS) (3)**

*Prerequisites: ART 215 and 216 or permission of instructor. Recommended: ARTH 400.*

An introduction to museology or the study of museums, its focus is their history, their narratives, and their role in the communication (or suppression) of cultural values. Other students may use it to fill a 400-level art history elective if space permits. Students can not receive credit for both ART 491 and ARTH 401.

**ARTH 410. Ancient/Classical Art. (3)**

Three hours lecture and seminar.

*Prerequisites: ART 215 and 216 or permission of instructor. Recommended: ARTH 400.*

A study of the art and architecture of the ancient Near East, Egypt, the Aegean, Greece and Rome. Students can not receive credit for both ART 422 and ARTH 410.

**ARTH 411. Medieval Art. (3)**

Three hours lecture and seminar.

*Prerequisites: ART 215 and 216 or permission of instructor. Recommended: ARTH 400.*

Exploration of the origins, evolution, themes, and visual characteristics of European art of the early Christian through Gothic periods. Students can not receive credit for both ART 424 and ARTH 411.

**ARTH 412. Renaissance Art. (3)**

Three hours lecture and seminar.

*Prerequisites: ART 215 and 216 or permission of instructor. Recommended: ARTH 400.*

An examination of the rebirth of the visual arts in Europe in the 14th, 15th and 16th centuries. Students can not receive credit for both ART 462 and ARTH 412.

**ARTH 413. Baroque and Rococo Art. (3)**

Three hours lecture and seminar.

*Prerequisites: ART 215 and 216 or permission of instructor. Recommended: ARTH 400.*

A study of the styles and themes of 17th and early 18th-century Western European art. Students can not receive credit for both ART 482 and ARTH 413.

**ARTH 414. Special Topics in Pre-Modern Art History. (3)**

Three hours seminar.

*Prerequisites: ART 215, ART 216, ARTH 316, ARTH 400, ARTH 401, and one of ARTH 410 - 413.*

Topics offered might include a period defined more narrowly than “ancient/classical” (ART 410) or “medieval” (ART 411) – early Christian iconography, for example – or they may approach the period from a focus on a key monument (Hagia Sophia, for example), key medium (illuminated manuscripts), or a social/economic topic of importance to the period.

**ARTH 420. Twentieth Century Art. (3)**

Three hours lecture and seminar.

*Prerequisites: ART 215 and 216 or permission of instructor. Recommended: ARTH 400.*

Study of the development of the visual arts of the 20th century emphasizing chronological evolution, themes, and visual forms. Students can not receive credit for both ART 428 and ARTH 420.

**ARTH 423. History of Photographic Media and Camera Arts. (3)**

Three hours lecture and seminar.

*Prerequisites: ART 215 and 216 or permission of instructor. Recommended: ARTH 400.*

Provides an overview of the history and invention of photography and the camera, an examination of issues related to the development of photography as a tool of science, historical documentation, and art; and the place of photography and more recent developments in digital and video media in the history of art. Students can not receive credit for both ART 451 and ARTH 423.

**ARTH 430. Whimsy, Outrage and Seduction: Exhibiting Art in the 21st Century. (3)**

Three hours seminar.

*Prerequisites: ART 215, ART 216, ARTH 316, ARTH 400, ARTH 401. Recommended: ARTH 420.*

Beginning with the premise that the role of museums and exhibitions has changed significantly in the late 20th century, this course will identify exhibitions that both support and challenge the idea that museums have returned to their roots as cabinets of curiosity. In the process of doing so, exhibition protocols, exhibitions that have made history, curatorial roles, and the variables that influence curatorial decisions will be examined.

**ARTH 431. Special Topics in Modern/Contemporary Art History. (3)**

Three hours seminar.

*Prerequisites: ART 215, ART 216, ARTH 316, ARTH 400, ARTH 401 and ARTH 420 or ARTH 423 or ART 430. Some of these requirements may be waived for BFA majors; check with adviser or instructor.*

A more in-depth exposure to contemporary art will be particularly useful for those students who intend to pursue an advanced degree and/or a career in museum studies. Topics will vary, focusing at times on an especially important movement in the 20th century, a significant artist, or more frequently, the impact of changes in new media on contemporary art.

**ARTH 499. Art History Capstone. (3)**

Three hours seminar and independent research.

*Prerequisites: Minimum of 33 credit hours in art history, including ART 215 and 216, ARTH 316, ARTH 400, ARTH 401, and required upper-level art histories.*

The goal of the capstone is demonstration of the ability to apply appropriate art historical methodologies to a research question chosen by the student.

## ASTRONOMY

### **ASTR 111. General Astronomy I. (4)**

Three hours lecture; two hours laboratory. Survey of astronomy from ancient cultures to present day, nature of light and gravity, telescopes and astronomical observations, evolution and dynamics of Earth and our solar system. This course has been approved for Core Curriculum credit in Natural Sciences.

### **ASTR 112. General Astronomy II. (4)**

Three hours lecture; two hours laboratory. Stellar evolution and nucleosynthesis, the universe beyond the solar system and the cosmic distance ladder, black holes and other exotic objects, galaxies, origin and evolution of our universe. This course has been approved for Core Curriculum credit in Natural Sciences.

### **ASTR 310. Observational Methods In Astronomy. (3)**

One hour lectures; four hours laboratory. *Prerequisites: ASTR 112, MATH 152, PHYS 112 or 222, or permission of instructor.* Students will make telescopic observations of the moon, planets, stars, interstellar medium, and galaxies. Topics will include theory and practice in optical-range astrophotography and digital imaging techniques, and astronomical data reduction and interpretation. The class will spend approximately one hour per week in lecture, and four in lab.

### **ASTR 421. Solar System Astronomy. (3)**

Three hours lecture. *Prerequisites: ASTR 111, 112 and PHYS 112 or 222.* Application of astronomical concepts and techniques to solid astronomical bodies; study of meteorites, impact craters and ring systems; basic orbital mechanics.

### **ASTR 422. Galactic Astronomy and Cosmology. (3)**

*Prerequisites: ASTR 111, 112 and PHYS 112 or 222.* Three hours lecture. Application of astronomical concepts and techniques to the structure and evolution of galaxies

and other large-scale structures; cosmology, including the origin and evolution of our universe.

## ATHLETIC TRAINING

### **ATTR 150. Fundamentals of Athletic Training. (1)**

One hour lecture/observations. Focuses on the history, development and scope of the athletic training profession, as well as current and future trends related to athletic training. Students will also become familiar with the Athletic Training Program at RU. Students will observe athletic trainers in the athletic training room and the clinical athletic training setting. Students cannot receive credit for both ESHE 150 and ATTR 150.

### **ATTR 205. Introduction to Athletic Training Skills. (2)**

Two hours lecture. *Prerequisite: Cumulative GPA of 2.50. Corequisite: ESHE 201 and ATTR 225.* Didactic and psychomotor skill instruction with practical examinations covering taking and recording of vital signs, emergency care procedures, taping, wrapping, splinting, and basic modality theory and application. Students cannot receive credit for both ESHE 205 and ATTR 205.

### **ATTR 225. Practicum I (Athletic Training). (1)**

*Prerequisite: Cumulative GPA of 2.50. Corequisite: ESHE 201, ATTR 205.* Clinical experiences designed to provide students with an appreciation of the various duties of athletic trainers in a traditional setting. This course requires the completion of 60 hours of observation. Students cannot receive credit for both ESHE 225 and ATTR 225.

### **ATTR 250. Practicum II (Athletic Training). (3)**

*Prerequisites: ESHE 201, ATTR 205, ESHE 225, Entrance into ATEP. Corequisite: ATTR 323.* Laboratory and clinical experiences designed to provide students with formal instruction and evaluation in the Entry Level Athletic Training Clinical Proficiencies. This course requires the completion

of 150 hours of clinical experience performed under the supervision of a program approved Clinical Instructor. Students cannot receive credit for both ESHE 250 and ATTR 250.

**ATTR 323. Assessment of Athletic Injuries I – The Extremities. (3)**

Two hours lecture; two hours laboratory

*Prerequisite: ESHE 201.*

Laboratory and clinical experiences in the recognition and evaluation of athletic injuries occurring to the hand, wrist, forearm, elbow, shoulder, ankle, shin, knee, thigh and hip. Students cannot receive credit for both ESHE 323 and ATTR 323.

**ATTR 325. Practicum III (Athletic Training). (3)**

*Prerequisite: ATTR 250.*

*Corequisite: ATTR 422.*

Laboratory and clinical experiences designed to provide students with formal instruction and evaluation in the Entry Level 331 Athletic Training Clinical Proficiencies This course requires the completion of 180 hours of clinical experience performed under the supervision of a program approved Clinical Instructor, and has a corequisite of ATTR 422. Students cannot receive credit for both ESHE 325 and ATTR 325.

**ATTR 333. Athletic Training Skill Assessment. (1)**

One hour lab/assessment evaluation.

*Prerequisite: ATTR 150.*

Students in this course will be evaluated over psychomotor athletic training skills. These skills will be taught in ATTR 205, ATTR 250, ATTR 323, ATTR 325, ESHE 345, ATTR 365, ATTR 420, and ESHE 422.

**ATTR 335. Seminar in Athletic Training. (2)**

Two hours lecture.

*Prerequisites: ATTR 250, ATTR 323.*

Covers modern trends in rehabilitative techniques, orthotic devices, nutritional supplements and allied health professions that may be applicable to athletic training professionals. Students cannot receive credit for both ESHE 335 and ATTR 335.

**ATTR 340. General Medical Conditions and Concerns of the Athlete (Athletic Training). (3)**

Three hours lecture.

*Prerequisite: ATTR 250, ATTR 323 or permission of the instructor.*

*Corequisite: ATTR 345.*

Introduction to illnesses and disease processes common in athletic populations. Emphasis will be placed on prevention, recognition, immediate care and appropriate referral techniques. Students cannot receive credit for both ESHE 340 and ATTR 340.

**ATTR 345. General Medical Rotation. (Athletic Training). (1)**

*Prerequisite: ATTR 250, ATTR 323.*

*Corequisite: ATTR 340.*

Laboratory and clinical experiences designed to provide students with formal instruction and evaluation in the entry level athletic training clinical proficiencies. This course requires the completion of 50 hours of clinical experience performed under the supervision of an approved medical professional at a program approved site. Students cannot receive credit for both ESHE 345 and ATTR 345.

**ATTR 355. Practicum IV (Athletic Training). (4)**

*Prerequisite: ATTR 325.*

Laboratory and clinical experiences designed to provide students with formal instruction and evaluation in the Entry Level Athletic Training Clinical Proficiencies. This course requires the completion of 240 hours of a program approved Clinical Instructor. A portion of these clinical hours must be done at an off campus rotation with pre-season football at a program approved clinical site. Students cannot receive credit for both ESHE 355 and ATTR 355.

**ATTR 365. Therapeutic Exercise. (4)**

Three hours lecture; two hours laboratory

*Prerequisite: ATTR 323 or consent of instructor.*

Effects, advantages, disadvantages, indications, contradictions, precautions, and the application parameters of therapeutic exercises in injury rehabilitation. Students cannot receive credit for both ESHE 365 and ATTR 365.

**ATTR 420. Therapeutic Modalities. (4)**

Three hours lecture; two hours laboratory.

*Prerequisite: ATTR 323 or permission of instructor.*

Enables students to study the effects, advantages, disadvantages, indications, contradictions, precautions, and application parameters of therapeutic modalities in injury rehabilitation of the physically active. Emphasis is placed on treatment modalities available to athletic trainers in clinical settings. Students cannot receive credit for both ESHE 365 and ATTR 365.

**ATTR 422. Athletic Injury Assessment II – Head, Spine, Thorax. (3)**

Two hours lecture; two hours laboratory.

*Prerequisite: ATTR 323 or permission of instructor.*

*Corequisite: ATTR 325.*

Laboratory and clinical experiences in the recognition and evaluation of athletic injuries occurring to the head, spine, thorax, and abdomen. Students cannot receive credit for both ESHE 422 and ATTR 422.

**ATTR 425. Organization and Administration of Athletic Training Programs. (3)**

*Prerequisite: ATTR 325 or permission of instructor.*

Three hours lecture.

This course will provide an overview of the administrative concepts and organization of an athletic training program and health care facilities in a variety of settings, including university, secondary school and clinical athletic training environments.

**ATTR 430. Senior Professional Athletic Training Seminar. (3)**

Two hours lecture; two hours laboratory.

*Prerequisites: ATTR 355, Senior standing, or permission of instructor.*

Resume writing, interviewing, and a comprehensive review of the Athletic Training educational competencies. This course requires the completion of 120 hours of clinical experience performed under the supervision of an Approved Clinical Instructor. Students cannot receive credit for both ESHE 430 and ATTR 430.

**BIOLOGY**

**BIOL 103. Environmental Biology. (4)**

Three hours lecture; two hours laboratory.

For any student who is not a Biology major. An introduction to how the natural world works and of the scientific methods used to study the natural world. Emphasis is on the study of ecology and the process and products of evolution. Applications are made to the importance of biological diversity, the impact of humans on the natural world, and the methods used to understand and ameliorate such impacts. Biology majors should take BIOL 131. Students who are not Biology majors but need to take upper level Biology courses should take BIOL 105. This course has been approved for Core Curriculum credit in Natural Sciences.

**BIOL 104. Human Biology. (4)**

Three hours lecture; two hours laboratory.

For students who are not Biology majors. An introduction to the basic principles of biology, with emphasis on human beings as biological organisms. Humans will be considered as products of evolution, as physiological systems, as reproducing entities, as members of their ecosystem, and as biological engineers able to change other organisms. The nature of scientific investigation will be stressed and current applications to biological technology and its effect on society will be considered. BIOL 104 is not a prerequisite for upper level study in Biology. Biology majors should take BIOL 131. Student who are not Biology major but need to take upper level Biology courses should take BIOL 105. This course has been approved for Core Curriculum credit in Natural Sciences.

**BIOL 105. Biology for Health Sciences. (4)**

Three hours lecture; two hours laboratory.

Intended for any student who is not a Biology major, but who needs to take microbiology or human anatomy courses for their majors. Students who are not Biology majors must pass BIOL 105 prior to taking Microbiology (BIOL 334), Human Structure and Function (BIOL 310, 311), or Human Anatomy and Physiology (BIOL 322). An introduction to the basic processes of life and science. Emphasis is on

scientific investigation and processes common to most organisms including humans: cellular structures and functions, mechanisms of inheritance, and mechanisms of adaptation. Applications are made to genetic technologies, human disorders, and bioethics. Biology majors cannot get credit for BIOL 105. Biology majors should take BIOL 131. This course has been approved for Core Curriculum credit in Natural Sciences.

**BIOL 131. Ecology and Adaptation. (4)**

Three hours lecture; three hours laboratory.

A study of the distribution, abundance, and diversity of organisms in nature. The laboratory component will teach basic laboratory skills while enhancing students' ability to conduct field sampling, observational studies, and experiments. This is the first course in a four-course sequence intended for biology and other science majors. This core sequence serves as a foundation and prerequisite for further study in biology.

**BIOL 132. Biology of Cells and Microorganisms. (4)**

Three hours lecture; three hours laboratory.

*Prerequisite:* "C" or better in either BIOL 131 or CHEM 101. Biology majors must have a "C" or better in BIOL 131.

A study of life at the molecular and cellular level. Topics include the chemistry of life, metabolism, cell structure, cell membranes, cell communication, the basis of multicellularity, and a survey of unicellular organisms. The laboratory component will teach basic laboratory skills while enhancing students' ability to plan experiments. This is the second course in a four-course sequence intended for biology and other science majors. This core sequence serves as a foundation and prerequisite for further study in biology.

**BIOL 160. Introductory Seminar in Biology. (2)**

Two hours seminar.

*Prerequisite:* Freshman standing.

Designed for students new to the Biology major, this is a seminar course that will discuss various professional skills needed to succeed in the major. Topics may include: introduction to scientific literature, discussions of career options, and expectations for biology majors.

**BIOL 215. Plants and Society. (4)**

Three hours lecture; three hours laboratory.

*Prerequisite:* BIOL 131 or BIOL 232 or 4 hours of biology or permission of instructor.

An interdisciplinary exploration into the vital role plants and plant products play in human society. Throughout recorded history, humans have depended on plants as sources of foods, beverages, herbs and spices, medicinal and recreational drugs, wood and textiles, and other products. Topics may include plant structure, growth, and nutrition; the diversity and evolutionary relationships of organisms traditionally studied by botanists, techniques for growing and producing plant products; plant breeding and genetic modification; and conservation of plant-based resources. The origins, history, morphology and chemistry of plants of economic importance may be considered.

**BIOL 216. General Zoology.**

Three hours lecture, three hours laboratory.

*Prerequisite:* BIOL 103 or BIOL 131.

Introduces classification, nomenclature, structure, function, development and evolution of the nonphotosynthetic protists and the major animal phyla.

**BIOL 217. Flora of Virginia. (4)**

Three hours lecture, three hours laboratory.

*Prerequisite:* 4 hours of biology.

A lecture and field/laboratory course focusing on identification and classification of trees, shrubs, and wildflowers of eastern North America. Emphasis on the use of dichotomous keys to identify native and naturalized plant species, distinguishing characteristic of major temperate plant families, and common ecological communities and habitats of Virginia. This course is suitable for both biology majors and non-majors.

**BIOL 231. Genetics, Evolution and Development. (4)**

Three hours lecture; three hours laboratory.

*Prerequisite:* "C" or better in BIOL 132.

An introduction to the basic principles of genetics, microevolution, molecular biological techniques, and developmental biology. Topics include classical Mendelian genetics, cytogenetics, molecular genetic analysis, bioinformatics and genomics, microevolution, phylogenetics analysis, and plant and

animal development. Laboratory experiments and projects apply course concepts and scientific methodology to biological research questions. This is the third course in a four-course sequence intended for biology and other science majors. This core sequence serves as a foundation and prerequisite for further study in biology.

**BIOL 232. Organismal Biology. (4)**

Three hours lecture; three hours laboratory.

*Prerequisite: "C" or better in BIOL 231.*

A phylogenetic approach to the study of organismal structure and function, with emphasis on the anatomy, physiology, and diversity of major groups of plants, animals, and selected protists and fungi. Topics include functional organization and body plans, reproduction, growth, development regulation, nutrition, and transport. Laboratory experiments and projects apply course concepts and scientific methodology to biological research questions. This is the final course in a four-course sequence intended for biology and other science majors, and serves to integrate topics and skills introduced in earlier core courses. The core sequence serves as a foundation and prerequisite for further study in biology.

**BIOL 301. Bioethics. (2)**

Two hours seminar.

Examines the historical, social, cultural, and philosophical bases of various bioethical controversies. Students will analyze the assumptions underlying positions, the arguments presented in defense of these positions and the possibility of resolving conflicts that arise over the issues involved.

**BIOL 302. Science, Technology and Society. (2)**

Two hours seminar.

Provides an introduction to science and technology studies emphasizing the nature of science, the process of discovery, the relationship between science and technology, and the interrelationships between science, technology and society.

**BIOL 310, 311. Human Structure and Function I and II. (4,4)**

Three hours lecture; three hours laboratory.

*Prerequisite: BIOL 105 or BIOL 132:231.*

Focuses on the structure of the human body and the physiological mechanisms used to maintain homeostasis. Designed to meet the needs of students preparing for careers in physical therapy, athletic training, or any other area requiring two four credit courses in human anatomy and physiology. Students receiving credit for Biology 322 may not receive credit for Biology 310 or 311.

**BIOL 322. Human Anatomy and Physiology. (6)**

Five hours lecture; three hours laboratory.

*Prerequisite: BIOL 105 or BIOL 132:231.*

Focuses on structure of the human body and the physiological mechanisms used to maintain homeostasis. Designed to meet needs of science, paramedical, nutrition, dance and physical education students. Lecture devoted to physiological processes; laboratory major vehicle for presenting structure. Students may receive credit for only BIOL 322, or BIOL 310 and BIOL 311.

**BIOL 333. Population and Community Ecology. (4)**

Three hours lecture; three hours laboratory.

*Prerequisites: BIOL 131 and STAT 200 (STAT 200 may be taken concurrently)*

This course studies the distribution and abundance of species, and how populations interact with each other and their environment. Investigations will encompass a broad diversity of organisms from all parts of the world. Laboratory exercises will study local species interactions, with a strong emphasis on field work.

**BIOL 334. Microbiology. (4)**

Three hours lecture; three hours laboratory.

*Prerequisite: BIOL 105 or BIOL 132:231.*

Fundamentals of microbiology including the morphology and taxonomy of the major groups of microorganisms, including viruses. Discussions of the growth, cultivation, reproduction, effects of physical and chemical agents and transmission of disease. BIOL 334 will not satisfy requirements for the Biology major, with

the exception of the clinically-oriented Medical Technology concentration.

**BIOL 337. Immunology. (4)**

Three hours lecture; three hours laboratory.  
*Prerequisites: BIOL 132; and either BIOL 232 or BIOL 322.*

Explores basic principles, such as cells and molecules of the immune system, humoral and cellular immunity, serology, diseases caused by immune responses and current applications of immunologic procedures.

**BIOL 351. Comparative Animal Physiology. (4)**

Three hours lecture; three hours laboratory.  
*Prerequisites: BIOL 132:231:232; or BIOL 105 and permission of instructor.*

A comparative approach to animal physiology: physical and chemical properties of animal systems, respiration, circulation, osmoregulation, neural and endocrine functions. Emphasis on homeostatic mechanisms.

**BIOL 353/PSYC 353. Comparative Behavior. (3)**

Two hours lecture; two hours laboratory.  
*Prerequisites: PSYC 121; and either BIOL 103 or BIOL 131.*

Study of animal behavior from viewpoints of zoology, ethology and comparative psychology. Topics may include, but are not limited to, animal sensory capacities, motor capabilities and coordinating mechanisms; classification of behavioral traits; analysis of instinctive behavior, learned behavior, social behavior, animal communications and evolutionary significance of social organization.

**BIOL 361. Parasitology. (4)**

Three hours lecture; three hours laboratory.  
*Prerequisite: BIOL 231 or BIOL 232 or a "B" or better in BIOL 105.*

Studies of the anatomy, systematics, ecology and life cycles of the major parasitic group.

**BIOL 380. Ornithology. (4)**

Two hours lecture, four hours laboratory.  
*Prerequisite: Eight credits of Biology or permission of instructor.*

Offered as an integrated lecture and laboratory/field study emphasizing the evolution, anatomy, physiology, identification, behavior, and ecology of birds. At least one weekend field trip will be scheduled.

**BIOL 383. Molecular Forensic Biology. (4)**

Three hours lecture; three hours laboratory.  
*Prerequisite: BIOL 231 or BIOL/CHEM 471/472, or permission of instructor.*

An introduction to the basic principles and molecular techniques currently utilized by the majority of forensic laboratories performing DNA and/or protein analysis. Lectures will provide students with an understanding of the scientific foundation for, and the development of, each technique. Topics include DNA/protein structure, origins of genetic variation, methods for quantifying variation, population genetic theory used in forensic analysis, forensic informatics, statistical approaches to data analysis and legal issues associated with molecular forensics. The laboratory portion will provide students hands on experience with a variety of forensic techniques, and will train the student in proper record keeping, laboratory quality assurance/quality control requirements, and performing routine laboratory calculations.

**BIOL 390. Conservation Biology. (3)**

Three hours lecture.  
*Prerequisite: BIOL 231; or BIOL 103 and either BIOL 104 or BIOL 105.*

Examines the importance of biodiversity to the global environment. Students will gain an appreciation of the complexity of biotic communities associated with important ecosystems and will examine man's role in influencing these communities. Current controversies regarding species preservation will be explored through readings and discussion.

**BIOL 392. Environmental Toxicology. (4)**

Three hours lecture, three hours lab.

*Prerequisites: Eight credits of Biology and eight credits of Chemistry, or permission of instructor.*

Designed to provide Biology majors with an understanding of important pollution problems facing society, and to provide the student with practical experience in environmental sampling and analysis.

**BIOL 401, 402, 403. Medical Technology. (3,3,3)**

*Prerequisites: Senior standing in Biology, Medical Technology Concentration, and acceptance into a clinical internship by a program-affiliated or –associated hospital.*

A 12-month clinical internship working in one of the hospitals affiliated/associated with Radford University. Students study various clinical phases of medical technology with daily lectures and laboratory classes taught by pathologists and medical technologists at the hospital.

**BIOL 405. Histology. (4)**

Three hours lecture; three hours laboratory.

*Prerequisite: BIOL 132:231:232 or BIOL 322.*

Introduction to components, arrangement and adaptations of animal tissues with special emphasis on mammalian tissues and mammalian organ systems.

**BIOL 408. Principles of Microbiology. (4)**

Three hours lecture; three hours laboratory.

*Prerequisites: BIOL 132 and BIOL 231*

A course on prokaryotic biology. Topics include bacterial cell biology, bacterial genetics, bacterial metabolism, microbial evolution and ecology, and bacterial interactions with humans, with a particular emphasis on bacteria as pathogens. Emphasis will be placed on reading primary literature and writing. Laboratory exercises will include sterile and bacterial culturing techniques, and exercises in bacterial genetics and physiology.

**BIOL 409. Virology. (4)**

Three hours lecture; three hours laboratory.

*Prerequisite: BIOL 132, BIOL 231*

An introduction to viruses, with emphasis on pathogens of humans. Topics include viral

replication cycles, host-virus interactions, evolution, transmission, non-viral agents, and medically and agriculturally important viruses. Emphasis will be placed on reading, presenting, and discussing primary literature. The laboratory will demonstrate handling, propagation, diagnosis, and evolution of viruses.

**BIOL 419. Introduction to Molecular Bioinformatics. (3)**

Three hours lecture.

*Prerequisites: STAT 200 and either BIOL 132:231 and CHEM 102, or BIOL/CHEM 471/472; or permission of instructor.*

Provides a broad introduction to the area of bioinformatics. Topics include: molecular biology background, protein structure and function, sequence alignment algorithms, protein structure prediction, structure-structure alignment, public sequence/structure databases and search tools, introductory phylogenetic analysis, and introduction to systems biology.

**BIOL 425. Evolution. (3)**

Three hours lecture.

*Prerequisite: BIOL 231 and BIOL 232.*

Introduction to modern hypotheses on the mechanisms of genetic change in populations, speciation, evolution of societies, origins of higher taxa, causes of extinctions and modern approaches to classification. Concepts will be applied to a discussion of human evolution.

**BIOL 430. Genes and Development. (4)**

Three hours lecture; three hours laboratory.

*Prerequisite: BIOL 132 and BIOL 231; or permission of instructor.*

An introduction to the molecular, physiological, and morphological events of developmental systems with emphasis on vertebrates. Emphasis will be placed on gene regulation during gametogenesis, fertilization, early development, organogenesis, and cellular differentiation. Laboratory will involve a comparative morphological study of embryos and analysis of gene expression during development.

**BIOL 432. The Eukaryotic Cell. (3)**

Three hours lecture.

*Prerequisites: BIOL 132 and CHEM 102.*

Structure and function of eukaryotic cells, with emphasis on cell reproduction, survival, signaling, and cooperation in multicellular organisms. Readings will include the primary literature of cell biology. The interpretation of modern cell biology experimentation will be emphasized.

**BIOL 434. Evolutionary Development Biology. (3)**

Three hours lecture.

*Prerequisite: BIOL 231 or permission of instructor.*

An introduction to the basic concepts and ongoing research in the field of evolutionary developmental biology, or “evo-devo.” This course addresses basic questions of evolutionary developmental biology. How do new body parts evolve? How does change at a genetic level lead to change at a phenotypic level? How do experience and environment influence physiology and morphology? The course emphasizes current research on these and related questions. The course also provides an overview of current research techniques in the field including immunohistochemistry and gene knock-outs/ins.

**BIOL 450. Molecular Biology. (4)**

Three hours lecture, three hours laboratory.

*Prerequisites: CHEM 102; and either BIOL 231 or BIOL 334.*

Covers the structure and function of deoxyribonucleic acid (DNA), the flow of information from DNA to ribonucleic acid (RNA) to protein, and the regulation of gene function in prokaryotic and eukaryotic cells. Laboratories will focus on the techniques and application of recombinant DNA technology, including cloning and DNA fingerprinting.

**BIOL 460. Advanced Seminar in Biology. (2)**

Two hours seminar.

*Prerequisites: BIOL 131, BIOL 132, BIOL 231, and BIOL 232 (BIOL 232 may be taken concurrently with junior or senior status).*

Explores various biological topics with a focus on critical and analytical reading of primary bio-

logical literature sources and developing and using scientific writing skills. May be taken more than once for credit providing the topic is different.

**BIOL 462. Invertebrate Zoology. (4)**

Three hours lecture; three hours laboratory.

*Prerequisite: BIOL 131:132:231:232.*

Survey of the structure, function and relationships of members of the major groups of invertebrate animals. Laboratory studies will include experience in identification techniques as well as traditional investigation of comparative anatomy. Some field studies included.

**BIOL 464. Vertebrate Zoology. (4)**

Two hours lecture; four hours laboratory.

*Prerequisite: 131 or 103 or permission of instructor.*

An introduction to vertebrate zoology including an examination of origin; class characteristics; evolution; and adaptations of body form, locomotion, feeding, protective, spacing, social, reproductive, activity cycles and special adaptations for various types of habitats. Emphasis on collection, preservation and identification of vertebrates.

**BIOL/CHEM 471:472. Biochemistry. (4:3)**

471, four hours lecture

472, three hours lecture.

*Prerequisites: BIOL 105 or BIOL 121 or BIOL 132; CHEM 302.*

Study of the main classes of biomolecules, cellular organism, enzyme action, bioenergetics, metabolic pathways and the flow of genetic information.

**BIOL/CHEM 474. Biochemistry Laboratory. (1)**

Three hours laboratory.

*Prerequisite or corequisite: CHEM 471 or BIOL 471.*

Experience in isolating and determining properties of biochemical materials using important techniques of biochemical analysis.

**BIOL 476. Forest and Wetland Ecology. (4)**

Three hours lecture; three hours laboratory.

*Prerequisites: BIOL 131 and STAT 200 (STAT*

200 may be taken concurrently)

This course studies the structure and function of forest and wetland communities and factors influencing the distribution and abundance of species in these systems. We will examine the influence of environmental characteristics (climate, topography, hydrology, soils, disturbance) and plant physiological adaptations in forests and wetlands; methods of vegetation sampling, description, and classification; and current management and conservation issues. Laboratory investigations will emphasize collection of field data, vegetation and site characterization, and analytical techniques.

**BIOL 477. Neuroscience.** (4)

Three hours lecture; three hours laboratory.

*Prerequisites: BIOL 132 and BIOL 231.*

An introduction to basic and fundamental concepts in the field of neuroscience. This course will provide an introduction and overview of several core neuroscience areas including cell and molecular biology of neurons, synaptic transmission, cognition, perception, movement, arousal, emotion, behavior, thought, learning and memory. The laboratory component will emphasize the importance of discovery and students will participate in animal research.

**BIOL 478. Endocrinology.** (4)

Three hours lecture. Three hours laboratory.

This course provides an introduction to the fundamental concepts endocrinology, including neuroendocrinology, behavioral endocrinology and metabolic regulation. The course provides an overview of hormone production, hormonal regulation, receptor mechanisms and mediating mechanisms, as well as hormonal effects on organismic systems including stress and reproductive physiology and behavior, growth, and energy regulation. The course will also address evolution and variation in endocrine function across taxa and emphasize ongoing research in the field. The laboratory component will emphasize analysis, discussion and discovery, with students participating in animal research projects.

**BIOL 479. Advanced Physiology.** (3)

Three hours lecture.

*Prerequisites: BIOL 232 or BIOL 322 or permission of instructor*

This advanced course is intended to provide stu-

dents with fundamental knowledge of physiology with emphasis on the central concept of homeostasis and the mechanisms of select diseases. It is expected that most students enrolling this course have aspirations to become health care professionals or will continue on to graduate programs related to physiology. Since health care professionals must be able to explain basic physiology and disease conditions to their patients, students in this course will be responsible for preparing and giving some lectures on mechanisms of disease.

**BIOL 481. Special Topics in Biology.** (1-6)

One to six hours of lecture and/or laboratory.

*Prerequisites: 4 credits of Biology and permission. Course outline available each time course offered. Interested students should consult department chairperson for information about registering.*

**BIOL 488. Final Honors Project.** (2-3)

*Prerequisites: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, a 3.5 GPA in all courses and in biology.*

See "Honors Academy" on p. 80. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

**BIOL 491. Directed Study and Research.** (1-6)

*Prerequisites: 8 credits in Biology, permission of instructor, approval by the Biology Department Chair and a minimum GPA of 2.5 in Biology courses.*

An introduction to research or other forms of scholarly study in biology under the close supervision of a faculty mentor. A maximum of six credit hours of Biology 491/492/495 may be applied to the Biology major; any additional credit hours will apply as university electives.

**BIOL 492. Undergraduate Research.** (1-6)

*Prerequisites: 8 credits in Biology, permission of instructor, approval by the Biology Department Chair and minimum GPA of 2.5 in Biology courses.*

Independent research or other scholarly study in biology carried out under the supervision

of a faculty mentor. This course requires a demonstration of student involvement in the planning and execution of the research project beyond that expected in BIOL 491. As determined in advance by the student and mentor, and approved by the department chair, this demonstration will take the form of a written proposal and/or oral proposal evaluated by a faculty committee, a written and/or oral defense evaluated by a faculty committee, and/or a draft manuscript for publication. A maximum of six credit hours of Biology 491/492/495 may be applied to the Biology major; any additional credit hours will apply as university electives.

**BIOL 495. Internship in Biology. (1-6)**

*Prerequisites: 16 credit hours of Biology or other laboratory science, 2.5 or higher GPA in Biology courses, and permission of the department chair.*

Application of skills and concepts learned in the classroom and laboratory in a real world situations through full- or part-time placement in a professional setting with a company, organization, or research faculty doing work in some area of biology. Students will be supervised by both the internship site personnel and by a biology faculty member.

A total of 6 credit hours of Biology 491, 492 and 495 may be applied to the biology major.

## **BUSINESS LAW**

**BLAW 203. Legal Environment of Business. (3)**

Three hours lecture.

A survey of the legal system of the United States of America. Civil procedure, tort law, administrative law and criminal law are briefly surveyed. Areas of the law studied in more depth include contracts, government regulation, international law and agency. Business ethics and diversity are emphasized in much of the topical coverage. (Does not include coverage of the Uniform Commercial Code.)

**BLAW 304. Business Law I. (3)**

Three hours lecture.

*Prerequisite: BLAW 203.*

The course is an in-depth study of the Uniform Commercial Code, Articles 2, 2a, 3, 4, 6, 7 and 9, bankruptcy, the CISG and other business law topics frequently addressed on the CPA examination.

**BLAW 305. Business Law II. (3)**

Three hours lecture.

*Prerequisite: BLAW 203.*

An in-depth study of the laws affecting business organizations, property, wills, trusts and estates and insurance. In addition, other areas of the law affecting business may be covered as these areas emerge and as time permits.

**BLAW 306. Entertainment Law. (3)**

Three hours lecture.

*Prerequisite: BLAW 203 or permission of instructor.*

Provides a study of the legal aspects of the entertainment industry. Particular attention will be paid to contracts and contract implications, copyright law, and licensing concerns. Union issues, agency, and international implications will also be addressed.

## **CHEMISTRY**

**CHEM 101:102 or 103.**

**General Chemistry. (4:4)**

Three hours lecture; three hours laboratory.

Introduction to principles and applications of chemistry. Students whose major requires upper-level chemistry courses must take CHEM 101:102. A student may receive a maximum of 8 hours credit for General Chemistry. CHEM 101 includes measurements, stoichiometry, atomic and molecular structure, chemical bonding, gases, and solutions. CHEM 102 includes additional chemical bonding topics, crystal lattices, kinetics, chemical equilibria, acid-base chemistry, electrochemistry, and radiochemistry. CHEM 103 is divided equally between inorganic and organic/biochemistry topics. CHEM 103 is designed primarily for nursing majors and non-

science majors. CHEM 101 and 102 have been approved for Core Curriculum credit in Natural Sciences.

**CHEM 115. Chemistry of the Environment. (4)**

Three hours lecture; three hours laboratory. The most fundamental concepts and techniques of chemistry will be presented by emphasizing the applications of chemistry in our lives and the impact of chemistry on society and the environment. Credit towards a Chemistry degree will not be given for CHEM 115. CHEM 101 and 102 are the prerequisites for all upper-level courses in chemistry.

**CHEM 120. Chemistry of Life. (4)**

Three hours lecture; three hours laboratory. The most basic concepts and techniques of general, organic, and biochemistry will be presented by concentrating on the chemistry necessary to understand living systems. This course has been approved for Core Curriculum credit in Natural Sciences.

**CHEM 215. Environmental Chemistry. (3)**

Three hours lecture.  
*Prerequisite: CHEM 102 or 103.*  
The chemical nature of major environmental problems, including their sources and possible solutions. Major topics include acid deposition, global warming, ozone depletion, air pollution, photochemical smog, water pollution, solid waste disposal, recycling, and alternatives to fossil fuels.

**CHEM 216. Inorganic Chemistry. (3)**

Three hours lecture.  
*Prerequisite: CHEM 102*  
A descriptive inorganic chemistry course of the main group elements and transition metals. Other topics include: atoms, bonding, solid state structures, acid-base theories, and redox reactions.

**CHEM 301:302. Organic Chemistry. (4:4)**

Three hours lecture; three hours laboratory.  
*Prerequisite: CHEM 102.*  
Study of the physical and chemical properties of organic compounds.

**CHEM 324. Analytical Chemistry. (4)**

Two hours lecture; six hours laboratory.  
*Prerequisite: CHEM 102.*  
An introduction to statistics of data, quality assurance, experimental design, and calibration with application to volumetric methods of analysis, traditional and instrumental methods of gravimetric analysis, and spectroscopy. Students cannot receive credit for both CHEM 201 and CHEM 324.

**CHEM 401:402. Physical Chemistry. (4:4)**

Three hours lecture.  
*Prerequisites: CHEM 102; MATH 152; PHYS 112 or 222.*  
A study of chemical thermodynamics, chemical kinetics, and quantum chemistry as applied to chemical reactivity, chemical equilibria, and molecular structure.

**CHEM 416. Advanced Inorganic Chemistry. (3)**

Three hours lecture.  
*Prerequisite: CHEM 216*  
Study of the chemistry of the transition elements. (To be taught once every two years.)

**CHEM 421. Polymer Chemistry. (3)**

Three hours lecture.  
*Prerequisite: CHEM 302.*  
An introduction and overview of polymers including synthesis, chemistry, properties, significance, and manufacturing processes.

**CHEM 424. Instrumental Methods of Analysis. (4)**

Two hours lecture; six hours laboratory.  
*Prerequisite: CHEM 102.*  
Theoretical principles, design, construction, applications, and operation of standard laboratory instruments.

**CHEM 441/PHYS 441. Electronics for Scientists. (3)**

Two hours lecture; four hours laboratory.  
*Prerequisite: CHEM 102; PHYS 112 or 222; MATH 152 or 155.*

Introduction to analog and digital circuit design appropriate for many scientific disciplines, including chemistry, computer science, physics, biology, and geology. Focus will be on analog electronics, including basic electronic circuit design, use of transducers, operational amplifiers, and wave forming circuits.

**CHEM 451. Qualitative Organic Analysis. (3)**

One hour lecture; six hours laboratory.  
*Prerequisite: CHEM 302.*

Introduction to qualitative analysis of organic compounds and separation of organic mixtures.

**CHEM 461. Advanced Organic Chemistry. (3)**

Three hours lecture.  
*Prerequisite: CHEM 302.*

Study of advanced topics in organic chemistry.

**CHEM 465. Forensic Chemistry. (4)**

Three hours lecture; three hours laboratory.  
*Prerequisites: CHEM 302, CHEM 324 and CHEM 424.*

Students will gain insight into the many areas of forensic chemistry and practice techniques commonly used in private, state, and federal forensic laboratories. The lecture portion of the course will highlight proper collection, handling, analysis, and data interpretation of physical evidence from an accident or crime scene. The theory and principles of analytical methods and techniques will be presented. Spectroscopic, chromatographic, microscopic, and other techniques will be utilized to analyze evidence such as documents, fingerprints, fibers, paint, glass, firearms, drugs, arson, and explosives.

**CHEM/BIOLOGICAL 471:472. Biochemistry. (4:3)**  
CHEM 471, four hours lecture; CHEM 472, three hours lecture.  
*Prerequisites: BIOL 105 or BIOL 121 or BIOL 131; CHEM 302.*

Study of the main classes of biomolecules, cellular organization, enzyme action, bioenergetics, and the flow of genetic information.

**CHEM/BIOLOGICAL 474. Biochemistry Laboratory. (1)**

Three hours laboratory.  
*Prerequisite or corequisite: CHEM 471 or BIOL 471.*

Experience in isolating and determining properties of biochemical materials using important techniques of biochemical analysis.

**CHEM 480. Selected Topics in Chemistry. (1-3)**

One to three hours lecture.  
*Prerequisites: CHEM 102 and five semester hours of additional chemistry courses. Additional prerequisites may be required depending on course topic.*

Course is designed for science majors in their junior or senior year who wish to pursue advanced chemical subjects or to study recent advances in chemistry. The specific topic will be selected each time the course is taught.

**CHEM 481, 482. Undergraduate Research. (1-3)**

*Prerequisites: CHEM 301 and junior standing.*  
A laboratory course designed for students wishing to pursue an independent research project.

**CHEM 488. Honors Thesis. (2-3)**

*Prerequisite: Enrollment in the Honors Program, completion of all other Honors Program requirements, a 3.5 GPA in all courses and in chemistry.*

See Honors Academy on p. 80. In order to receive honors credit, a student must earn a grade of "A" or "B" for the honors thesis.  
Course may not be repeated.

**CHEM 498/PHYS 498. Independent Study (1-6)**

*Prerequisites: CHEM 102 or 103 and MATH 152.*  
See "Independent Study" on p. 53.

## COLLEGE OF HEALTH AND HUMAN SERVICES

### **CHHS 475. Global Perspectives in Health and Human Services. (3)**

*Prerequisite: Consult Program Director. Open to all students and majors.*

Seminar and field experience focusing on international health issues as they relate to political, social, cultural, ecological and economic factors in selected international/ intercultural settings.

## CHINESE

### **CHNS 101. Elementary Chinese I. (4)**

Four hours lecture and language practice.

*Prerequisites: 2.75 GPA and approval by the Chair of the Department of Foreign Languages and Literatures.*

Balanced emphasis is on listening, speaking, reading, and writing for beginners. This course has been approved for Core Curriculum credit in Foreign Languages.

### **CHNS 102. Elementary Chinese II. (4)**

Four hours lecture and language practice.

*Prerequisites: 2.75 GPA and CHNS 101 with a grade of "C" or better.*

A continuation of Elementary Chinese I with a balanced emphasis on listening, speaking, reading, and writing. This course has been approved for Core Curriculum credit in Foreign Languages.

### **CHNS 201. Intermediate Chinese I. (4)**

Four hours lecture and language practice.

*Prerequisites: CHNS 101 and 102 with a grade of "C" or better, and approval by the Chair of the Department of Foreign Languages and Literatures.*

A continuation of Elementary Chinese I and II with a balanced emphasis on listening, speaking, reading, and writing. This course has been approved for Core Curriculum credit in Foreign Languages.

### **CHNS 202. Intermediate Chinese II. (4)**

Four hours lecture and language practice.

*Prerequisites: CHNS 101, 102, and 201 with a grade of "C" or better, and approval by the Chair of the Department of Foreign Languages and Literatures.*

A continuation of Intermediate Chinese I with a balanced emphasis on listening, speaking, reading, and writing. This course has been approved for Core Curriculum credit in Foreign Languages.

### **CHNS 301. Transitional Mandarin Chinese Language and Culture. (4)**

Four hours lecture and language practice.

*Prerequisites: CHNS 101, 102, 201, 202 with a grade of "C" or better, and approval by the Chair of the Department of Foreign Languages and Literatures.*

A continuation of Intermediate Chinese II with a balanced emphasis on listening, speaking, reading, writing, and culture. This class is taught mostly in Chinese.

## CLASSICS

### **CLSS 110. Classical Mythology. (3)**

Three hours lecture.

Study of Greek and Roman mythology, the role of mythology in classical antiquity and the influence of classical mythology upon Western culture.

### **CLSS 120. Etymology. (3)**

Three hours lecture.

A vocabulary-building course with study of Latin and Greek stems, prefixes and suffixes in English derivatives.

### **CLSS 210. Greek Literature in Translation. (3)**

Three hours lecture.

*Prerequisites: ENGL 101 and 102.*

Study of masterpieces of ancient Greek literature, including epic, drama, history and philosophy.

**CLSS 220. Latin Literature in Translation.** (3)

Three hours lecture.

*Prerequisites: ENGL 101 and 102.*

Study of masterpieces of Latin literature, including epic and other poetry, drama, historiography, satire and oratory.

**CLSS 460. Special Topics.** (3)

Three hours lecture.

Study of various aspects of ancient Greek and Roman civilization. The topic will vary each time taught. May be taken twice for credit with different topics.

## **COLLEGE OF BUSINESS AND ECONOMICS**

**COBE 150. Speaker Series.** (1)

Students are exposed to a variety of speakers at campus and off campus events. Topics cover a wide variety of issues pertaining to business practices and problem solving in a business/organizational environment. A grade of Pass or Fail is given.

**COBE 151. Service Learning.** (1)

Participation in a meaningful service project of benefit to the community. A grade of Pass or Fail is given.

**COBE 152. Environment, Ethics, and Governance.** (1)

Students are exposed to a variety of issues relating to ethical dilemmas in the workplace. Activities include attending speaking events and discussing current events pertaining to ethics. A grade of Pass or Fail is given.

**COBE 190. Business Internship.** (1-3)

*Prerequisite: Minimum 2.0 GPA and designation as a business major.*

Students are exposed to basic business practice through work assignments with a local or regional organization. The number of work hours, credit hours and grade for the work performed

determined by the faculty member or members sponsoring the student. A grade of Pass or Fail is given.

## **COUNSELOR EDUCATION**

**COED 260. Seminar in Career Development.** (2)

Instructs students in educational and occupational development and leads toward vocational maturity through presentations and discussions of varied topics, including current aspects of young adult development, educational and career awareness and decision-making.

**COED 270. Student-Athlete Career Education and Development Seminar.** (2)

Designed to provide student athletes with a career educational approach that will lead to increased understanding of career development, educational and career awareness, and career decision-making.

**COED 450. Instructing the First-Year Student.** (2)

A course which examines students throughout their first semester of higher education as they acclimate to the university environment by focusing on models of student development theory, personal management techniques, and methods of classroom instruction. This course will examine who first-semester students are, and what academic and personal issues they will confront during their transition to higher education. The course will instruct student leaders on various models of classroom management techniques to be used within the UNIV 100 classroom, and will develop mentoring skills through assessment of leadership abilities.

**COED 461. Highlander Internship.** (1-3)

*Prerequisite: Approval of department chair.*

This class is structured to expose students to a first supervised work experience that will help confirm their choice of major and potential career field. Students will gain an understanding of the relationship between their

academic field and work opportunities post graduation, and identify and develop skills/experiences that are necessary to secure employment in the field. Interns will engage with community-based organizations in direct service. Leaders and scholars from non-profit and voluntary organizations, government, and business will introduce concepts, perspectives, and strategies critical to revitalizing and sustaining communities of place. Organizing themes include: environmental sustainability, social justice and diversity, health and wellness, hunger and food security, and community development. The internship may be repeated for up to 6 hours with different objectives during the second semester.

## COMMUNICATION AND MEDIA STUDIES

### **COMS 104. Basic News Writing. (3)**

Four hours lecture and laboratory. Instruction and practice in basic writing for print and electronic media. Includes introduction to writing fundamentals, writing for news media, and use of expository, narrative descriptive and persuasive approaches. This is a core course required of all Media Studies majors in the journalism concentration.

### **COMS 114. Public Speaking. (3)**

Three hours lecture/performance. Techniques and fundamentals of public speaking, methods for improving poise and confidence, delivery, construction of speeches and critical evaluation of speeches and speakers. For students who wish to improve their ability to communicate in public.

### **COMS 130. Introduction to Communication. (3)**

Three hours lecture. An introduction to the field of communication, including a survey of communication history, systems, technology, and roles in society. Provides students with a foundation in the history and practices of a wide range of communication

areas. This is a core course required of all students majoring in the School of Communication.

### **COMS 146. Media Performance. (3)**

Three hours lecture/performance. Performance demonstrated and practiced through a variety of media in studio and field settings. Personal coaching provided on the basis of audio and video recordings, analysis and feedback.

### **COMS 173. Introduction to Advertising and IMC. (3)**

Three hours lecture. Provides a foundation for advertising, its history, development, problems and challenges. Includes an overview of advertising, its creativity, composition, decision making, media planning, and management.

### **COMS 204. News Reporting. (3)**

Four hours lecture and laboratory. *Prerequisite: COMS 104 or permission of instructor.* Practice in advanced level reporting and feature writing. The course requires submission of all stories for possible media distribution (e.g., The Tartan and NRV News). Advanced discussion of ethics, morality, law and responsibility, as well as an examination of national and international media issues.

### **COMS 223. Advertising Copywriting. (3)**

Three hours lecture and laboratory. *Prerequisite: COMS 173 or permission of instructor.* Introductory course that exposes advertising students to various copywriting styles using a combination of lecture and laboratory exercises.

### **COMS 225. Introduction to Public Relations. (3)**

Three hours lecture/discussion. Principles, history and practice of public relations in business, educational institutions, social welfare organizations, government and military services.

**COMS 226. Digital Imaging. (3)**

Four hours lecture and laboratory.

Instruction in the technology of digital imaging and photo journalism. Practice in the creation, editing and processing of digital images for use in various media with some emphasis on the World Wide Web. Visual communication theories and history of photography are also covered.

**COMS 230. Communication Theory. (3)**

Three hours lecture/discussion.

A survey of communication theories in a variety of contexts. Includes study of interpersonal, group, persuasive, organizational, rhetorical, mass media, and intercultural theory. This is a core course required of all students majoring in the School of Communication.

**COMS 231. Research Methods in Communication. (3)**

Three hours lecture/participation.

*Prerequisites: COMS 230 or permission of instructor.*

An overview of research methods necessary for understanding and performing communication research in a variety of contexts. Includes methods of basic research, survey construction, experimental techniques and qualitative analysis.

**COMS 235. Writing for Public Relations. (3)**

Three hours lecture/performance.

*Prerequisite: COMS 225 or permission of instructor.*

Provides students with the theory and technical knowledge necessary to produce messages as professional communicators. Students will develop skills in a variety of writing formats and learn to utilize desktop publishing and graphics software in the production of messages.

**COMS 236. Print Production. (3)**

Four hours lecture and laboratory.

*Prerequisite: COMS 104.*

Principles and practices in the production of print and digital media with emphasis on computer graphics and desktop publishing. Course also covers theories of typography and visual communication.

**COMS 240. Teamwork and Communication. (3)**

Three hours lecture/performance.

Development of communication skills in the context of teams in organizational and professional settings. Students study the structure of effective teamwork, group process, problem solving, and leadership.

**COMS 246. Basic Audio Production. (3)**

Three hours lecture.

*Prerequisites: COMS 146.*

*Corequisite: COMS 247 or permission of instructor.*

Instruction in the basic theories of audio production, including studio and remote recording. Training in use of production equipment for radio, television and film.

**COMS 247. Script Writing. (3)**

Three hours lecture.

*Prerequisites: COMS 146.*

*Corequisite: COMS 246 or permission of instructor.*

An introductory media writing course that exposes production students to various forms of script writing for television, radio, film, and corporate video.

**COMS 250. Interpersonal Communication. (3)**

Three hours lecture/participation.

Improves understanding of internal communication environments; enhances ability to communicate with others. Emphasis on theory and research through experiential projects and examination of communication process used by class itself.

**COMS 273. Advertising Account Planning. (3)**

Three hours lecture.

*Prerequisite: COMS 173.*

Analysis of advertising from an account planning function, that is, creating insights for advertising strategy."

**COMS 300. Media History. (3)**

Three hours lecture/discussion.

*Prerequisite: COMS 130, COMS 230, or permission of instructor.*

Tracing the tributaries of concepts and practices of American journalism, including events, personalities, and institutions that influenced media from the colonial period to the present.

**COMS 304. Electronic News Gathering. (3)**

Four hours lecture and laboratory.

*Prerequisites: COMS 104, COMS 130, and COMS 230, or permission of instructor.*

Instruction and practice in news reporting for electronic media (for example, television, radio, cable, web). Introduction to various formats and professional standards. Includes news gathering from participants, experts, libraries and online sources. Emphasis placed on campus news and beat coverage. Discussion of national and international issues when reporting in the different media.

**COMS 314. Organizational Communication. (3)**

Three hours lecture/discussion.

*Prerequisites: COMS 130 and COMS 230, or permission of instructor.*

An intensive consideration of the role of human communication in organizational effectiveness. Emphasizes both theory and practice and focuses on information exchange, behavior regulation negotiation and conflict management as examples of fundamental communication practices.

**COMS 326. Web Production. (3)**

Four hours lecture and laboratory.

*Prerequisite: COMS 130, COMS 230, and COMS 226 or ITEC 225, or permission of instructor.*

Instruction and practice in designing interactive websites for the mass media. Course also introduces web aesthetics, digital imaging and other applications for the web.

**COMS 327/POSC 327. Politics and the Media. (3)**

Three hours lecture/discussion.

*Prerequisites: POSC 120 and COMS 130 and COMS 230, or permission of instructor.*

Modern mass media as actors in the political

arena, with an emphasis on how elections and policy making are affected by the mass media.

**COMS 332. Argumentation and Advocacy. (3)**

Three hours lecture/performance.

*Prerequisites: COMS 130 and COMS 230, or permission of instructor.*

Emphasis on the development and application of critical thinking and argumentation techniques, including argument development, use of evidence, reasoning and argumentation strategies. In-class practice debates facilitate implementation of critical thinking strategies by students.

**COMS 333. Persuasion. (3)**

Three hours lecture/performance.

*Prerequisites: COMS 130 and COMS 230, or permission of instructor.*

Modification of attitudes and behavior through purposeful oral communication. Techniques studied include generation of attention and interest, motivational devices, persuasive campaigns and development of credibility.

**COMS 335. Media and Society. (3)**

Three hours lecture/discussion.

*Prerequisite: COMS 130 and COMS 230, or permission of instructor.*

Investigation of the impact of mass media on society; discussion of theoretical concepts, political and social issues related to promotion, distribution, programming and advertising.

**COMS 346. Electronic Field Production. (3)**

Two hours lecture and two hours laboratory.

*Prerequisite: COMS 130, COMS 230, and COMS 246, and COMS 247*

*Corequisite: COMS 347 or permission of instructor.*

Fundamental course in techniques of electronic video field production. Includes script writing, lighting, and shooting a variety of video projects. Development of client relationships. Students must enroll in COMS 346 and COMS 347 concurrently.

**COMS 347. Video Editing and Effects. (3)**

Three hours of lecture and laboratory.

*Prerequisite: COMS 130, COMS 230, COMS 246 and COMS 247.*

*Corequisite: COMS 346 or permission of instructor.*

Introduction to analog and digital editing and video effects theories and techniques. Training in the use of analog and computerized video editing systems and digital video effects programs. Exploration of hardware and software issues relating to 3-dimensional graphics manipulation, video compression and recording. Students must enroll in COMS 346 and COMS 347 concurrently.

**COMS 373. Advertising Media Planning. (3)**

Three hours lecture.

*Prerequisite: COMS 130, COMS 230, and COMS 273, or permission of instructor.*

Examines variety of local and national sales methods, market research, demography, sales planning, organization and management. Includes writing for sales campaigns, preparation of presentations, production and placement of advertisements, development of client relations and follow-up service.

**COMS 400. Media Law and Ethics. (3)**

Three hours lecture.

*Prerequisite: COMS 130 and COMS 230, or permission of instructor.*

Examination of basic legal concepts and legal problems affecting mass media and media professionals. Includes case studies from the areas of constitutional law, statutory law and regulatory agency decisions. Principles and case studies in mass media ethics explored.

**COMS 404. Specialized Journalism. (3)**

Four hours lecture and laboratory.

*Prerequisites: COMS 104, COMS 204, COMS 130, COMS 230, or permission of instructor.*

Strategies for computer assisted reporting, practice in gathering information from first-person participants and expert sources, and experience in writing investigative and exploratory articles and/or documentary scripts. The course concentrates on several themes evident in journalism today, including diversity reporting, community

journalism, financial reporting, reporting for the web, international issues and others.

**COMS 406. Communication Skills Tutoring. (3)**

Three hours lecture/participation.

*Prerequisites: COMS 130 and COMS 230, or permission of instructor.*

Principles and methods of training clients in the improvement of communication skills in such areas as public speaking, group discussion and listening. Applied component of the course provides supervised consultation and tutoring experience. May be repeated once for undergraduate credit.

**COMS 407. Science and Environmental Writing. (3)**

Four hours lecture and laboratory

*Prerequisites: COMS 130, COMS 230, and COMS 104, or permission of instructor.*

Principles and practice of writing for scientific, educational and environmental publications; advanced reporting in public affairs and investigative journalism. Application of theories and models to advanced writing.

**COMS 408. Public Relations Management. (3)**

Three hours lecture/discussion.

*Prerequisites: COMS 130, COMS 230 and COMS 225, or permission of instructor.*

Management of public relations in industry, labor, education, government, social welfare and trade associations. Case studies of planning and preparation of communication materials for various media; applications of public relations techniques

**COMS 411. Public Relations Media and Campaigns. (3)**

Three hours lecture/discussion.

*Prerequisites: COMS 130, COMS 230, COMS 225 and either COMS 235 or COMS 104, or permission of instructor.*

Use of media to achieve motivation within various target audiences; theory and nature of materials emanating from a public relations department or counseling firm; practical analysis and

development of specialized communication materials to gain reaction and support from specialized groups.

**COMS 413. Political Communication. (3)**

Three hours lecture/discussion.

*Prerequisites: COMS 130 and COMS 230, or permission of instructor.*

Contemporary theories and practices of political communication. Examines the structure and function of political messages, the strategic dissemination of political messages and the effects of those messages on corporate, social, professional and cultural institutions.

**COMS 414. Critical Analysis of Public Discourse. (3)**

Three hours lecture/discussion.

*Prerequisite: COMS 130 and COMS 230, or permission of instructor.*

This course focuses on the creation, consumption, and evaluation of public discourse. As such, its main concerns are the sources of messages, the audiences for messages, the contexts in which the messages are produced, the messages themselves, and the confluence of all four to create a rhetorical reality.

**COMS 415. Communication Training and Development. (3)**

Three hours lecture/discussion/participation.

*Prerequisites: COMS 130 and COMS 230, or permission of instructor.*

The study of internal and external communication training and consulting in business, education, government, and other professional environments. Instruction focuses on developing, proposing, conducting, and evaluating communication training and development programs.

**COMS 416. Business and Professional Communication. (3)**

Three hours lecture/participation.

*Prerequisites: COMS 130 and COMS 230, or permission of instructor.*

This course is designed to provide for students advanced preparation in business and professional communication skills. Emphasis is placed on practical experience in designing and

implementing message strategies. Subjects covered include interviewing, formal informative and persuasive presentation by individuals and groups, written message construction, interpersonal communication in the workplace, giving and receiving criticism, and presentation of oneself in professional/social settings.

**COMS 427. Advanced Web and Multimedia Production. (3)**

One hour lecture, four hours laboratory.

*Prerequisites: COMS 130 and COMS 230 and COMS 236 and COMS 326, or permission of instructor.*

Theories of Interactivity, information presentation and virtual reality; practice in the creation of advanced interactive publications, including audio, video and hypermedia applications for web and other digital media.

**COMS 430. Crisis Management and Communication. (3)**

Three hours lecture/discussion.

*Prerequisite: COMS 130 and COMS 230 and COMS 225, or permission of instructor.*

Focuses on the public relations theory, management concepts, information management, problem solving, and communication management that are central to individuals and organizations succeeding in the management of a crisis situation.

**COMS 433. Communication and Social Change. (3)**

Three hours lecture/discussion.

*Prerequisites: COMS 130 and COMS 230, or permission of instructor.*

Introduction to rhetorical theory through study and analysis of selected pieces of public address or social movements.

**COMS 434. Media Literacy. (3)**

Three hours lecture/discussion.

*Prerequisite: COMS 130 and COMS 230, or permission of instructor.*

Examination of various approaches to media criticism, including the development of critical and evaluative thinking and writing related to all forms of mass media.

**COMS 439. Communication and Leadership. (3)**

Three hours lecture/participation.

*Prerequisites: COMS 130 and COMS 230, or permission of instructor.*

An introduction to the study and practice of leadership from a communication perspective.

Analysis of major theories and research in leadership with primary emphasis on application in real-world settings. Through discussions and participation in group activities, students explore leadership concepts and theories, analyze their personal leadership styles, and develop leadership communication skills.

**COMS 440. Listening and Nonverbal Communication. (3)**

Three hours lecture /discussion.

*Prerequisites: COMS 130 and COMS 230 or permission of instructor.*

Emphasis on theoretical and practical considerations of human awareness and attention, perception and reception of auditory, visual and nonverbal codifications, processing, reception and representation of the spoken word (psycholinguistics), image formation and visualization, as well as other semiotic processes, such as kinesics, proxemics, paralinguistics, haptics, and chronemics. Explores audience reception in personal as well as mediated contexts in terms of recent developments in brain/main research and theory.

**COMS 444. Media Management. (3)**

Three hours lecture.

*Prerequisite: COMS 130 and COMS 230, or permission of instructor.*

Examination of duties, responsibilities and skills necessary for efficient management of media. Emphasis placed on economic contingencies, media law, advertising, ratings, physical systems procurement and personnel decision-making.

**COMS 445. Advanced Audio Production. (3)**

Three hours of lecture and laboratory.

*Prerequisite: COMS 130, COMS 230, and COMS 246, or permission of instructor.*

Instruction in advanced audio production theories and techniques. Training in the use of digital cart machines and computer-assisted editing

systems; development of multi-rack mixing skills; coordination and integration of studio and computer systems; exploration of hardware and software issues relating to synchronization, sound compression and Internet publishing.

**COMS 446. TV Studio Production. (3)**

Three hours lecture and laboratory.

*Prerequisite: COMS 130, COMS 230, COMS 346 and COMS 347, or permission of instructor.*

Development of advanced skills in video production, including the operation, coordination and integration of studio equipment through computer systems. Involves theory and practice of production; direction of student video production in the studio.

**COMS 451. Intercultural and International Communication. (3)**

*Prerequisite: COMS 130, COMS 230, or permission of the instructor.*

Advanced study of the issues, problems, theories and policies of intercultural and international communication in the interpersonal, group, organizational and mediated contexts.

**COMS 452. International Film and Electronic Media. (3)**

*Prerequisite: COMS 130, COMS 230.*

Study of electronic media and film produced outside of the United States, including developing nations. Emphasis on aesthetic, social, cultural, economic, political and religious forces which shape media.

**COMS 457. Diversity in Communication. (3)**

Three hours lecture/discussion.

*Prerequisites: COMS 130 and, COMS 230 ,or permission of instructor.*

The impact of ethnicity, age, gender, and other aspects of diversity on communication, particularly in organizations. This course may be used to meet requirements for the minor in Women's Studies.

**COMS 459. Communication in Conflict Management. (3)**

Three hours lecture/discussion/field experience.

*Prerequisites: COMS 130 and COMS 230, or permission of instructor.*

Addresses the nature of conflict between people as it is manifested in communicative interaction in varied contexts, within individuals, between individuals, between groups and between organizational and social entities. It deals with both competitive and cooperative communication genres, as well as strategies of conflict intervention and mediation.

**COMS 460. Special Topics. (1-4)**

One- to four-hour(s) lecture/performance.

*Prerequisites: COMS 130 and COMS 230, or permission of instructor.*

Emphasis on selected topics in communication not covered in current course offerings. Can be taken more than once for a maximum of 12 hours credit.

**COMS 465. Communication and Health Care. (3)**

Three hours lecture/discussion.

*Prerequisites: COMS 130 and COMS 230, or permission of instructor.*

Survey of research findings and theoretic models relevant to communication practices and health care at interpersonal, group, organizational and social levels.

**COMS 473. Advertising Production. (3)**

Four hours lecture and laboratory.

*Prerequisites: COMS 130, COMS 230, COMS 226 and COMS 273, or permission of the instructor.*

Advertising design and production for print, broadcast and digital media.

**COMS 481. Journalism Portfolio. (3)**

Four hours lecture and lab. May be repeated, but no more than 9 hours of COMS 481 may be taken for credit.

*Prerequisites: COMS 104, 130, 204, 146 or 236, 304, 404 and COMS 230, or permission of instructor.*

Provides specific, directed activity for completion and evaluation of portfolio and resume material for advanced students in journalism.

**COMS 482. Production Technology Portfolio. (3)**

Four hours of lecture and laboratory. May be repeated, but no more than 9 hours of COMS 482 may be taken for credit.

*Prerequisites: 130, 146, 246, 346, 347, 446, and COMS 230, or permission of instructor.*

Provides specific, directed activity for completion and evaluation of portfolio and resume material for advanced students in Production Technology.

**COMS 483. Advertising Campaigns. (3)**

Four hours of lecture and laboratory. May be repeated, but no more than 9 hours of COMS 483 may be taken for credit.

*Prerequisite: COMS 130, 173, 223, 226, 230, 231, 273, 373, and 473, or permission of instructor.*

Provides specific, directed activity for advanced students in advertising production planning, and other experiential learning.

**COMS 484. Web Design Portfolio. (3)**

Four hours of lecture and laboratory. May be repeated, but no more than 9 hours of COMS 484 may be taken for credit.

*Prerequisites: COMS 130, 226, 326, 427, and ITEC 110 and 120 and COMS 230, or permission of the instructor.*

Provides specific, directed activity for advanced students in web production, editing, and other experiential learning.

**COMS 488. Final Honors Project. (2-3)**

*Prerequisites: COMS 130, COMS 230, Enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum of 3.5 GPA in all courses and in Communication.*

Project and topic to be determined by the student, the faculty member with whom the student works, and the School. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

**COMS 493. Corporate and Industrial Video Production.** (3)  
*Prerequisites: COMS 130, COMS 230, COMS 346, or permission of instructor.*

Preparation, planning, writing and production of video programs within corporate and industrial environments. Definition of external and internal program needs, development of training objectives, research proposals; directing of video projects, management of postproduction packaging and distribution; legal contracts and responsibilities.

**COMS 498. Independent Study.** (1-6)  
One to six hours.  
*Prerequisites: COMS 130, COMS 230 or permission of instructor.*

No more than six hours of Independent Study may be taken toward graduation. May be taken for honors credit with permission of the Honors Program. May be taken for letter grade or pass/fail. Independent Study course proposals must be approved by the School of Communication curriculum committee prior to the deadline for adding courses in the term in which the study is to be undertaken.

**COMS 499. Communication Internship.** (1-6)  
*Prerequisites: COMS 130, COMS 230, and any one of the following: COMS 235, COMS 104, COMS 223, COMS 247, or permission of instructor; 75 hours of college credit completed, and in good academic standing with a minimum of 2.0 GPA in the major. The instructor must approve a written internship proposal, and a signed formal agreement with the internship site supervisor must be on file in the Registrar's Office and the School of Communication.*

The internship is a capstone experience in which students apply knowledge and skill learned in the classroom under the supervision of a communication professional in an approved organization. Applications and policy statements are available from the instructor and on the School of Communication website. Students must consult with their academic advisor before applying and interviewing for internships, obtain school approval, and meet application deadlines.

For a complete listing of graduate courses, refer to the *Radford University Graduate Catalog*.

## **COMMUNICATION SCIENCES AND DISORDERS**

**COSD 221. Introduction to American Sign Language (ASL) and Deaf Culture.** (3)  
Three hours lecture.

Introduces students to American Sign Language and to the culture and literature of the deaf community. Required for students in the deaf and hard of hearing program.

**COSD 222. American Sign Language (ASL) II.** (3)  
Three hours lecture and language practice.  
*Prerequisite: COSD 221.*

Provides students with intensive study and practice of ASL vocabulary, syntax, and pragmatic language skills building upon skills developed in COSD 221. Required for students in the deaf and hard of hearing program.

**COSD 223. American Sign Language (ASL) III.** (3)  
Three hours lecture.  
*Prerequisite: COSD 221 and COSD 222.*

Provides students with intensive study and practice of ASL vocabulary, syntax, and pragmatic language skills building upon skills developed in COSD 221 and COSD 222. Required for students in the deaf and hard of hearing program.

**COSD 224. American Sign Language (ASL) IV.** (3)  
Three hours lecture and language practice.  
*Prerequisite: COSD 221, COSD 222, and COSD 223.*

Provides students with intensive study and practice of advanced ASL vocabulary, syntax, and pragmatic language skills building upon skills developed in COSD 221, COSD 222, and COSD 223. Required for students in the deaf and hard of hearing program.

**COSD/EDSP 225. Communication Processes, Development, and Disorders. (3)**

Three hours lecture.

Introduces students to professions that serve persons with communication disorders with the causes, nature, symptoms, and management of speech, language, and hearing disorders. Information regarding the normal speech, language, and hearing processes will also be reviewed. Information regarding the referral process, identification, and prevention will also be covered.

**COSD 301. Anatomy and Physiology of the Speech/Language/Hearing Mechanism. (4)**

Four hours lecture.

*Prerequisite: Junior standing and COSD major.*  
Study of the anatomy and physiology of the speech/language/hearing mechanism.

**COSD 315. Language Science and Technology. (3)**

Three hours lecture.

*Prerequisite: Junior standing.*

An introductory study of human language processing and performance, the use and variations of language in society, and the role of computer technology in conventional and alternative communication.

**COSD 316. Hearing Science. (3)**

Three hours lecture.

*Prerequisites: Junior standing or permission of instructor.*

Introduction to the study of the physics of sound, anatomy and physiology of the auditory system, and psychoacoustics.

**COSD 330. Introduction to Audiology. (3)**

Three hours lecture.

*Prerequisites: COSD 316.*

Provides the anatomical, physiological, embryologic, developmental and acoustic foundations for the study of hearing screening procedures, hearing evaluation measures, and measures of hearing handicap. Students will learn about auditory disorders common to all ages and related medical and non-medical management approaches. Students will be exposed to basic

hearing conservation and prevention of hearing loss. Selected hearing screening procedures and use of a wide range of clinical equipment, including amplification and sensory devices, will be addressed.

**COSD 401/510. Neuroanatomy in Communication Disorders. (3)**

Three hours lecture.

*Prerequisites: Senior standing and COSD major*  
An in-depth study of the neurological structures and functions related to normal speech, language, and hearing processes and communication disorders. Cross-listed with COSD 510.

**COSD 403/511. Public School Methods in a Diverse Society. (3)**

Three hours lecture.

*Prerequisite: COSD 315.*

A study of clinical delivery and administration of services to the communicatively disordered children and adolescents in the culturally diverse school setting, including current regulations and issues. Must be taken for Virginia Teacher Certification. (Previously offered as COSD 603 and 503).

**COSD 416. Topics in Speech-Language- Hearing. (3)**

Three hours lecture.

*Prerequisite: Senior class standing, or permission of instructor.*

Specialized knowledge in speech-language pathology and/or audiology relevant to the prevention, assessment and/or intervention for communication disorders will be offered. Topics will vary, but may include speech and language disorders, central auditory processing disorders, and cognitive disorders.

**COSD 421. Language Development: Birth to Five Years. (3)**

Three hours lecture.

A study of normal language development from birth through five years of age. Students cannot receive credit for this course if they have previously taken COSD 321.

**COSD 422/512. Audiologic Rehabilitation. (3)**

Three hours lecture.

*Prerequisite: COSD 330 or enrollment in the Teacher of Hearing Impaired certification program.*

An in-depth study of sensory devices and intervention approaches for children with hearing loss.

**COSD 425. Later Language Development. (3)**

Three hours lecture.

*Prerequisite: COSD 421*

A study of spoken and written language development during the school years and into adulthood. Students cannot receive credit for this course if they have previously taken COSD 325.

**COSD 438. Phonetics. (3)**

Three hours lecture.

*Prerequisite: Senior standing or permission of instructor.*

Introduction to phonetic principles; transcription using the International Phonetic Alphabet. Student cannot receive credit for this course if they have previously taken COSD 311.

**COSD 454. Speech Language Disorders: Prevention and Assessment. (3)**

Three hours lecture.

*Prerequisite: Senior standing or permission of instructor.*

Introduction to clinical practice in communication disorders. Emphasis on prevention, ethics, and assessment measures. A minimum of 5 hours of supervised clinical observation is required.

**COSD 455. Speech-Language Disorders: Intervention Methods and Application. (3)**

Three hours lecture.

Introduction to clinical practice in communication disorders. Emphasis on basic skills, ethics, and intervention. A minimum of 15 hours of supervised clinical observation is required.

**COSD 488. Final Honors Project. (3)**

*Prerequisites: Completion of COSD Core Curriculum requirements; enrollment in Honors Academy; completion of all other Honors Academy requirements; minimum 3.5 GPA in all courses and in COSD.*

To earn a bachelor's degree with honors, a COSD student must conduct a faculty-directed research professional inquiry project. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated or retaken.

**COSD 498. Independent Study. (1-6)**

Subject to approval of the Communication Sciences and Disorders Department the semester before it is to be taken. Students may take no more than two Independent Studies, with no more than three hours of credit per study. See "Independent Study" on p. 53 .

For descriptions of graduate courses, consult the *Radford University Graduate Catalog*.

## CORE FOUNDATIONS

**CORE 101. Essentials of Written and Oral Communication. (3)**

Three hours lecture.

Introduction to college-level reading, writing, and speaking, with attention given to the writing process, genre, style, audience, and standard written English. The course will also introduce students to basic oral communication skills. This course has been approved for Core Curriculum credit in University Core A.

**CORE 102. Advanced Written and Oral Communication. (3)**

Three hours lecture.

*Prerequisite: CORE 101.*

Further development of students' writing and speaking skills with attention to applied critical thinking and information literacy. The course will introduce students to basic elements of reasoning and critical thinking and their use in persuasive communication. Students will develop competency in information literacy and will learn the basic mechanics of public speaking by making oral presentations. This course has been approved for Core Curriculum credit in University Core A.

**CORE 103. Written and Oral Communication-Honors.**

(3)

Three hours lecture.

*Prerequisite: Admission to the Honors Academy.*

Development of students' writing and speaking skills with emphasis on logic and information literacy. Students will form and support claims, attending to the assumptions underlying arguments. The course will introduce students to elements of logic, including fallacies and inductive reasoning, and their use in persuasive written and oral communication. This course has been approved for Core Curriculum credit in University Core A.

**CORE 201. Topics in Critical Inquiry.**

(3)

Three hours lecture.

*Prerequisites: CORE 102 or CORE 103.*

Further development of students' skills in critical thinking, including a rigorous introduction to informal fallacies, deductive logic and inductive reasoning. Students will also learn how to recognize, analyze, and evaluate arguments in written and oral communication. Students will continue to develop competency in information literacy as they read and critique persuasive writing and communication and create their own arguments. This course has been approved for Core Curriculum credit in University Core A.

**CORE 202. Topics in Ethical Inquiry.**

(3)

Three hours lecture.

*Prerequisite: CORE 201.*

Further development in students' skills in technology, reading, writing, oral communication, research, and critical thinking. This course includes a broad introduction to ethical theories and methods of ethical reasoning. Students will strengthen their skills in the recognition, analysis, and evaluation of written and oral arguments. Students will critique texts and create their own sustained line of reasoning regarding an ethical topic. This course has been approved for Core Curriculum credit in University Core A.

**CRIMINAL JUSTICE**

**CRJU 100. Introduction to Criminal Justice.**

(3)

Three hours lecture.

Survey of the American criminal justice system and processes. Crime, criminal law, law enforcement, prosecution, adjudication, corrections and juvenile justice.

**CRJU 150. Crime, Law and Justice.**

(3)

Three hours lecture.

*Prerequisites: Declared major or minor in criminal justice.*

Introduces students to key concepts in the study of criminal justice. Topics will include crime and social control, the role of criminal law, the nature of justice, and a survey of the criminal justice process. In addition, special attention will be devoted to the conduct of basic criminal justice research.

**CRJU 210. Juvenile Justice.**

(3)

Three hours lecture.

Covers the study and function of the juvenile justice system, the process within the system, and the youth who become involved

**CRJU 233. Courts and the Criminal Process.**

(3)

Three hours lecture.

An examination of the steps in the process followed in most criminal courts and the legal rules relating to each step. The manner in which judges are selected in the American legal system and the organization of state and federal courts will also be examined.

**CRJU 235. Police and Society.**

(3)

Three hours lecture.

This course is designed to examine the psychological, sociological, and philosophical role of the police as it relates to such topics as social conflict, criminal behavior, police brutality, police corruption, and stress.

- CRJU 238. Corrections.** (3)  
Three hours lecture.  
A comprehensive overview of the field of corrections, with special emphasis on community-based corrections as alternatives to institutionalization.
- CRJU 290. Seminar.** (3)  
Three hours lecture.  
*Prerequisite: CRJU 100 or CRJU 150.* Concentrated study of specific area of criminal justice. May be taken multiple times for credit as long as course content varies.
- CRJU 315. Constitutional Rights and the Criminally Accused.** (3)  
Three hours lecture.  
*Prerequisite: CRJU 100 or CRJU 150.*  
A study of legal rules and procedures that are essential to the criminal judicial process.
- CRJU 320. Criminal Investigative Theory.**(3)  
Three hours lecture.  
*Prerequisite: CRJU 100 or CRJU 150.*  
A study of criminal investigative theory essential to the solution of crime, including crime scene, processing, interviewing and crime-specific solution strategies.
- CRJU 330. Deviant Sexual Behavior and Criminal Activity.** (3)  
Three hours lecture.  
*Prerequisite: CRJU 100 or CRJU 150.*  
Introduces students to the world of the sexually deviant criminal. Emphasis is placed on understanding the various types of offense behavior, victim issues, investigative methods and techniques, and treatment of the sex offender.
- CRJU 341. Introduction to Forensic Science.** (3)  
Three hours lecture.  
*Prerequisite: CRJU 320.*  
Study of the application of biological and physical sciences in the legal system. The course introduces the student to the principles and methods of a forensic laboratory. (Students may not receive credit for both CRJU 241 and CRJU 341.)
- CRJU 345. Historical Perspectives on Criminal Justice.** (3)  
Three hours lecture.  
*Prerequisite: CRJU 100 or CRJU 150.*  
Provides both an overview of the historical ideas about justice in the western tradition and of the development of the criminal justice system in the United States in the context of social and political history.
- CRJU 350. Ethical and Moral Issues in Criminal Justice.** (3)  
Three hours lecture.  
*Prerequisites: CRJU 100 or CRJU 150.*  
Introduces students to theoretical and applied criminal justice professional ethical norms and standards as they relate to criminal justice decision making processes in discretion, due process, truthfulness, corruption, and discrimination.
- CRJU 360. Criminal Law and Evidence.** (3)  
Three hours lecture.  
*Prerequisite: CRJU 100 or CRJU 150.*  
The examination of criminal laws and rules of evidence; origins, definition, scope and impact upon the criminal justice practitioner.
- CRJU 365. Diversity Issues in the Criminal Justice System.** (3)  
Three hours lecture.  
*Prerequisites: CRJU 100 or CRJU 150, and SOCY 110; or enrollment in the Women's Studies Program.*  
Provides an overview of gender, race, and ethnicity issues as related to criminal justice. Major emphasis will be on developing a student understanding of cross-cultural variation; feminist thought and its impact on justice; and the effects that gender and race have on the lives of people within the context of contemporary issues of justice.  
This course may be used to meet requirements for the minor in Women's Studies.

**CRJU 370. Crime and Criminal Behavior.** (3)

Three hours lecture.

*Prerequisites: CRJU 100 or CRJU 150, and junior and senior standing.*

Focuses on the ways in which explanations of criminal behavior influence and are reflected in public policy and in the workings of the criminal justice system

**CRJU 380. Rural Crime and Law Enforcement.** (3)

Three hours lecture.

*Prerequisite: CRJU 100 or CRJU 150.*

Introduces students to the aspects of crime that are unique to rural areas as well as the specific challenges for rural criminal justice agencies with an emphasis on law enforcement organizations.

**CRJU 385. Research Methods in Criminal Justice.** (3)

Three hours lecture.

*Prerequisites: CRJU 100 or CRJU 150; junior standing; STAT 200.*

Introduces students to social science research methodology involved in conducting original research. Research skills include qualitative and quantitative research methodologies. Other skills will include, but are not limited to, oral communication, intensive writing, computer operations, and statistical model applications

**CRJU 412. Security Administration and Crime Prevention.** (3)

Three hours lecture.

*Prerequisite: CRJU 100 or CRJU 150.*

An introduction to private security administration and crime prevention measures utilized by industrial, commercial and community agencies.

**CRJU 430. International Criminal Justice.** (3)

Three hours lecture.

*Pre- or-corequisites: CRJU 100 or CRJU 150, and CRJU 365.*

Examines the major criminal justice systems of the world, detailing history, culture, policy, and operation of police, corrections, and judiciary.

**CRJU 439. Community-Based Corrections.** (3)

Three hours lecture.

*Prerequisite: CRJU 238.*

Designed to examine the variety of correctional services available in the community, as alternatives to incarceration. Emphasis will be placed on probation and parole, as well as the range of intermediate sanctions (including, but not limited to, programs such as boot camps, drug courts, electronic monitoring, etc.).

**CRJU 470. Criminal Justice Management.** (3)

Three hours lecture.

*Prerequisite: CRJU 100 or CRJU 150.*

Designed to explore in-depth the major management and organizational issues that impact on criminal justice administration in the United States. A critical view of the major problems and issues confronted by contemporary criminal justice administrators will be considered.

**CRJU 481. Forensic Evidence.** (3)

Three hours lecture/lab.

*Prerequisite: CRJU 241 or CRJU 341.*

Designed to introduce the student to the major concepts of law and evidence. The topics for discussion will include, but are not limited to: kinds of evidence, burden of proof, admission and exclusion of evidence, relevancy, witnesses, documentary evidence, judicial notice, the hearsay rule and its exceptions, and the best evidence rule. Students will be assigned a mock trial project.

**CRJU 483. Criminal Justice Experiential Learning.** (3)

*Prerequisites: CRJU 100 or CRJU 150; CRJU 233; CRJU 235; CRJU 238; junior or senior standing; minimum of 3.0 GPA (overall and in Criminal Justice coursework); permission of instructor Corequisite: CRJU 484*

The student will complete a field experience related to criminal justice. Students will be expected to integrate their field experiences with the body of criminal justice theory to produce a scholarly research project. This course must be taken concurrently with CRJU 484 (Criminal Justice Internship).

**CRJU 484. Internship in Criminal Justice. (6-15)**

Field placement.

*Prerequisites: CRJU 100 or CRJU 150; junior or senior standing, with minimum 2.5 grade point average; faculty approval.*

Placement of student with criminal justice agency with academic supervision. Graded pass/fail. Does not fulfill CRJU elective requirement. This course may be taken concurrently with CRJU 483. CRJU 484 may count for 3-12 credit hours for student concurrently enrolled in CRJU 483.

**CRJU 488. Final Honors Project. (2-3)**

*Prerequisites: Enrollment in Honors Program, completion of all other Honors Program requirements, a minimum 3.5 GPA in all courses and in criminal justice.*

Project and topic to be explored determined by the student, the faculty member with whom he or she works and the student's major department. Topics may include any of the basic fields offered within the field of criminal justice: law enforcement and administration; criminology and the courts; or probation, parole and corrections. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

**CRJU 490. Seminar. (3)**

Three hours lecture.

*Prerequisites: CRJU 100 or CRJU 150, and junior standing.*

Concentrated study on specific areas of criminal justice. May be taken again for credit as often as course content varies.

**CRJU 495. Critical Perspectives in Criminal Justice. (3)**

Three hours lecture.

*Prerequisites: CRJU 385; senior standing.*

Designed to emphasize a variety of applied and synthesizing skills, including oral communication, intensive writing, and service learning. Decision making skills and ethics will also be emphasized in the area of public policy.

**CRJU 498. Independent Study. (1-3)**

*Prerequisites: Nine hours of CRJU courses and permission of instructor.*

Students must obtain approval of department on

proposed program in semester preceding that in which Independent Study is anticipated. Course may carry one to three hours credit a semester and may be taken for up to six semester hours credit. Offered as needed. See "Independent Study" on p. 53.

For a complete list of graduate courses, please consult the *Radford University Graduate Catalog*.

**DANCE**

**DNCE 105. Beginning Ballet. (2)**

Four hours technique. (TQ)

Based on the Vagonova System, a scientific, thorough, and highly expressive classical ballet training method. Theory as well as fundamental barre and centre practice, including adagio and allegro techniques on a beginning level. May be taken for a total of six semester hours of credit.

**DNCE 111. Dance Appreciation. (3)**

Three hours lecture. (TH)

Promotes understanding and appreciation of dance and its various roles in societies of past and present. This course has been approved for Core Curriculum credit in Visual and Performing Arts.

**DNCE 120. Dance Improvisation. (1)**

Provides the opportunity for creative exploration, reflection and discussion on the basic dance compositional elements, time, space and design. As an introduction to the creative process, improvisation provides experiences in making quick solutions to compositional problems. May be taken for a total of three semester hours of credit.

**DNCE 131. Beginning Modern Dance. (2)**

Four hours technique. (TQ)

Fundamentals of movement, rhythm, form and design. Technique and compositional studies progressing in difficulty. May be taken for a total of six semester hours of credit.

**DNCE 180. Jazz Dance. (2)**

Four hours technique. (TQ)

Technique in jazz dance progressing in difficulty as to length and complexity of exercises. May be taken for a total of six semester hours credit.

**DNCE 201. Pointe Technique. (2)**

Four hours technique. (TQ)

Based on the Vagonova System, a scientific, thorough, and highly expressive classical ballet training method. Concentrates on basic essentials of pointe technique, using specific exercises to develop strength, proper alignment, and correct execution. May be taken multiple times for credit.

**DNCE 205. Low-Intermediate Ballet. (2)**

Four hours technique. (TQ)

Based on the Vagonova System, a scientific, thorough, and highly expressive classical ballet training method. Basic barre and centre practice, including adagio and allegro techniques on a low-intermediate level. May be taken for a total of eight semester hours of credit.

**DNCE 210. Introduction to Pilates. (2)**

Covers fundamental theoretical and movement principles of the Pilates Method, including studio work in the Pilates Method of mat exercises and the Universal Reformer. Strengthens and stretches the total body, emphasizing control from the core center or powerhouse. Students learn to protect the body in all movement forms by developing a strong link between the physical and the mental aspects of movement and applying them to daily activity. May be taken for a total of four semester hours of credit.

**DNCE 220. Dance Composition. (2)**

Two hours. (PR)

*Prerequisite: One semester of DNCE 120.*

Provides opportunity for creative exploration and analysis of principles of fundamental dance techniques through improvisation, problem solving, and informal production of student works. May be taken for a total of four semester hours of credit.

**DNCE 231. Intermediate Modern Dance. (2)**

Four hours technique. (TQ)

Movement experiences and techniques progressing in difficulty. Implementation of principles and techniques of choreography in individual and group compositions. May be taken for a total of 12 semester hours of credit.

**DNCE 260. Production Participation. (1)**

Four hours. (PR)

*Prerequisite: Approval of Dance Department faculty.*

Provides students with an experiential application of the principles of theatrical production and its related fields. Typical experiences will include but not be limited to: dance performance, costume production, lighting implementation, publicity, scenic production, stage managing, and sound production. This course is intended for students who wish to combine their classroom learning with practical experience through participation in closely supervised projects. May be taken multiple times for credit.

**DNCE 280. Intermediate Jazz Dance. (2)**

Four hours technique. (TQ)

Provides continued development of the body as an instrument for jazz dance expression with emphasis on technique, style and compositional form. May be taken multiple times for credit.

**DNCE 305. High-Intermediate Ballet. (3)**

Six hours technique. (TQ)

Based on the Vagonova System, a scientific, thorough, and highly expressive classical ballet training method. Increasingly complex barre and centre practice, including adagio and allegro techniques on a high intermediate-level. May be taken multiple times for credit.

**DNCE 310. Study in Somatics. (3)**

Six hours technique. (TH)

*Prerequisites: DNCE major with junior or senior standing.*

Covers fundamental theoretical and movement principles in somatic therapies and techniques. Strengthens and stretches the total body, emphasizing control from the core center. Students learn theoretical and practical knowledge to protect the body in all movement forms by developing a strong link between the physical and the mental aspects of movement. May be taken for a total of six credit hours.

- DNCE 320. Choreographic Studies I. (3)**  
Six hours technique. (PR)  
*Prerequisite: DNCE 120 and DNCE 220.*  
Development of solo, duo, and group composition in dance for analysis and critical appraisal, including an informal production of original student choreography. May be taken for a total of six semester hours of credit.
- DNCE 331. High-Intermediate Modern Dance. (3)**  
Six hours technique. (TQ)  
Intensive study of modern dance technique for preprofessional levels emphasizing correctness of execution and expressiveness. May be taken multiple times for credit.
- DNCE 365. Performance Practicum. (2)**  
Provides students with an intensive experiential application of dance performance. This course is intended for students who wish to further explore and develop skills related to dance performance through participation in closely supervised creative dance projects. May be taken multiple times for credit.
- DNCE 366. Travel Study. (1-12)**  
Academic study involving domestic and/ or international travel. May be taken again for credit with different topics or areas of study.
- DNCE 370. Creative Dance for Children. (3)**  
Three hours lecture. (TH)  
Presents theory and methodology for creative dance in elementary education. Explores the nature of dance as a creative, aesthetic and movement experience which can integrate with other academic subjects. Provides experience with lesson plans, varied ages, developmental levels and field experience provide pedagogical knowledge and skills. Applicable to public schools, studios and recreation programs.
- DNCE 380. Advanced Jazz Dance Technique. (3)**  
Six hours technique.  
Provides continued development of the body as an instrument for jazz dance with an emphasis on technique, performance, and style. May be taken multiple times for credit.
- DNCE 400. Special Topics. (1-3)**  
Two to six hours technique. (TQ)  
Consideration of various technical, theoretical or stylistic topics in dance. Offered on demand. May be taken multiple times for credit.
- DNCE 401. Pointe Technique. (3)**  
Six hours technique. (TQ)  
Based on the Vagonova System, a scientific, thorough, and highly expressive classical ballet training method. Intensive study of pointe technique for preprofessional levels emphasizing correctness of execution and style. May be taken multiple times for credit.
- DNCE 405. Advanced Ballet. (3)**  
Six hours technique. (TQ)  
Based on the Vagonova System, a scientific, thorough, and highly expressive classical ballet training method. Barre and centre practice, including adagio and allegro techniques on an advanced level. May be taken multiple times for credit.
- DNCE 410. Accompaniment for Movement. (3)**  
Three hours lecture/laboratory. (TH)  
Rhythmic analysis, reading and writing metric patterns, computer software applications, and individual and group sound design projects.
- DNCE 420. Choreographic Studies II. (3)**  
Six hours technique. (TH)  
*Prerequisites: DNCE 120, DNCE 220, and DNCE 320.*  
Focused on advanced choreographic exploration and research with intensive work on individual projects, culminating in bringing completed works to production. May be taken for a total of six semester hours of credit.
- DNCE 431. Advanced Modern Dance Technique. (3)**  
Three hours technique.  
*Prerequisite: DNCE 331.*  
Provides advanced-level exploration of modern dance techniques with an emphasis on refining alignment, developing ability to self-correct, and expanding movement vocabulary. It is a preparatory course to enter the professional field of dance. May be taken multiple times for credit.

**DNCE 465. Dance Production. (3)**

Two hours lecture; two hours laboratory. (TH)  
Principles of preparation for a dance production, including costuming for dance, make-up for dance, organization and management. Offers experience in practical application of principles through work on a dance production. Fall, alternate years.

**DNCE 470. Methods of Teaching Dance. (3)**

Three hours lecture. (TH)

*Prerequisite: DNCE 370.*

Principles and techniques dance with emphasis on students in grades 6-12. Theory and field experience combine to provide pedagogical knowledge and skills. Students devise and implement learning experiences in dance which are appropriate and meaningful for middle and secondary students.

**DNCE 480, 481. History and Philosophy of Dance. (3, 3)**

Three hours lecture. (TH)

Traces development of dance during various historical periods. DNCE 480 covers primitive, Oriental, Egyptian, ancient Greek and Roman civilizations and the Christian era through the Middle Ages; DNCE 481 covers the developments in dance from the Renaissance to the present.

**DNCE 488. Final Honors Project. (2-3)**

Hours and credits to be arranged. (TH)

*Prerequisite: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 GPA overall and in dance.*

This project and the topic to be explored will be determined by the student, the faculty member with whom the student works and the student's major program area. (Honors Project may be a written or performance-based project.) In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

**DNCE 498. Independent Study. (1-4)**

See "Independent Study" on p. 53.

**DESIGN**

**DSN 100. Design Fundamentals. (3)**

Six hours studio.

An introduction to the elements and principles of design in two- and three-dimensional formats. The design process, including problem solving, creative expression and conceptual thinking, is emphasized. Students cannot receive credit for both DSN 100 and DSN 111.

**DSN 110. Introduction to Design. (3)**

Three hours lecture.

The purpose of this 3-credit lecture course is for students to receive an overview of the field of design, encompassing the built environment, fashion, interiors, print, textiles and everyday objects in the world around us.

**DSN 143. Business of Design. (2)**

Three hours lecture.

An introduction to the business aspects and issues relative to the operations of design/merchandising firm/industries. Students will not receive credit for both DSNF 133 and DSN 143.

**DSN 173. Design Psychology. (2)**

Two hours lecture.

This course establishes an overview of select theories of psychology that relate to design including sensory perception, the environment-behavior link, and consumer behavior as they relate to design as an applied art. Students will not receive credit for both DSNF 233 and DSN 173.

**DSN 220. Media Presentation. (3)**

Six hours lab.

*Prerequisites: 2.5 in-major GPA; "C" or better in DSN 100, DSN 110, DSN 143, DSNF 105 or DSNI 103 or DSNM 107.*

An introduction to presentation and design software, in a "hands-on" computer lab environment.

**DSN 223. Textiles. (3)**

Three hours lecture.

A study of fibers, yarn, fabrics and finishes for use in computer textile products. Emphasis is placed on investigation of fibers/yarns/fabrics for interior and apparel products. Students will

not receive credit for both DSNF 223 and DSN 223.

**DSN 340. Pre-Internship Seminar. (1)**

One hour lecture.

*Prerequisite: Passing of Second Year Portfolio Review and a minimum of a 2.5 GPA in major.*

A self-directed study to prepare the student for a summer internship experience in fashion design, interior design or fashion/interior merchandising. Students cannot receive credit for both DSN 340 and DSN 390.

**DSN 366. Travel Study – Design. (1-12)**

*Prerequisite: Permission of Instructor*

Academic study involving domestic and/or international travel. May be repeated for credit for a maximum of 12 hours. Grading option can be either A-F or pass/fail.

**DSN 400. Special Topics in Design. (1-6)**

*Prerequisite: Permission of Instructor.*

A study of a current topic that is of interest in the area of design, with emphasis on new developments, technology, or research in the various areas. May be repeated for credit for a maximum of 9 hours, provided a new topic is explored each time. Grading option can be either A-F or pass/fail.

**DSN 402. Global Design Studio. (2)**

Four hours studio.

*Prerequisites: Senior standing; 2.3 GPA in-major; DSNF 305 or DSNI 305 or DSNM 300; or permission of instructor.*

The purpose of this 2-credit studio is for students to become familiar with the events, trends, and problems facing citizens and designers in an increasingly interdependent, global world. Students will have a global view and weigh design decisions within the parameters of ecological, socioeconomic, and cultural contexts. In this interdisciplinary studio, students will address complex design problems through multi-disciplinary collaborations and consensus building.

**DSN 403. Senior Showcase and Portfolio. (2)**

Four hours studio.

*Prerequisites: DSN 402, and either DSNF 400 or DSNM 440; 2.5 in-major GPA; or permission of instructor.*

This course is the culminating activity of four years of fashion design or merchandising for design study. Students confront the challenge of designing and developing their individual portfolios, and producing a senior exhibit and fashion show.

**DSN 488. Final Honors Project. (2-3)**

*Prerequisite: Enrollment in Honors Academy; completion of all other Honors Academy requirements; senior standing in the Design major.*

This project and the topic to be explored will be determined by the student and the faculty member supervising the project. (Honors project may be a written or performance-based project). In order to receive honors credit, a student must earn a grade of “A” or “B” for the final project. Course may not be repeated and students may not receive credit if they have previously taken.

**DSN 498. Independent Study. (1-3)**

*Prerequisite: Permission of Instructor.*

Investigation by the student in areas of interest under the direction of an advisor.

## FASHION

**DSNF 105. Introductory Studio. (3)**

Six hours studio.

*Prerequisite: 2.5 in-major GPA; “C” or better in DSN 100 and DSN 110.*

Introduction to apparel design, sewing techniques and construction methods.

**DSNF 200. Sophomore Studio I. (3)**

Six hours studio.

*Prerequisite: 2.5 in-major GPA; “C” or better in DSN 143, DSN 173 and DSNF 105.*

Introduction to sloper development, garment fit, draping and flat pattern design, and garment construction techniques for woven fabrics.

**DSNF 202. Presentation Techniques. (3)**

Six hours studio.

*Prerequisite: 2.5 in-major GPA; “C” or better in DSN 143, DSN 173 and DSNF 105.*

Introduction to fashion sketching, design vision and process, target market interpretation, and line development.

- DSNF 205. Sophomore Studio II.** (3)  
Six hours studio.  
*Prerequisite:* DSNF 200, DSNF 202 & DSN 220; 2.5 in-major GPA, passing Basic Skills Assessment.  
Introduction to woven pant and basic knit garment sloper's development, and related apparel design; construction techniques.
- DSNF 207. Promotion Techniques.** (3)  
Six hours studio.  
*Prerequisites:* DSN 220, DSNF 200 and DSNF 202; 2.5 in-major GPA.  
Expansion and application of fashion sketching, design vision and process, presentation formats, and target market interpretation to successfully communicate a design concept.
- DSNF 300. Junior Studio I.** (3)  
Six hours studio.  
*Prerequisites:* DSN 223, DSNF 205, DSNF 207; 2.5 in-major GPA, passing Portfolio Review.  
Intermediate apparel design. Translation of original garment ideas from the two-dimensional to the three-dimensional form.
- DSNF 305. Junior Studio II.** (3)  
Six hours studio.  
*Prerequisites:* DSN 300, DSNF 320, DSN 320 and DSNF 350; 2.5 in-major GPA.  
The purpose of this course is to engage in 2-D and 3-D discovery-driving design processes that satisfy specific aesthetic and functional goals related to the use of non-traditional materials, sustainability, advanced apparel design techniques, and designing for competition.
- DSNF 307. Integrated Apparel Design.** (3)  
Six hours studio.  
*Prerequisites:* DSN 340, DSNF 300, DSNF 320, DSNF 350; 2.5 in-major GPA.  
The purpose of this course is to integrate various 2-D and 3-D design processes to create presentation boards and muslin mock-ups to address intermediate-level aesthetic and technical problems of apparel design realization.
- DSNF 320. Apparel Draping.** (3)  
Six hours studio.  
*Prerequisites:* DSN 223, DSNF 205, DSNF 207; 2.5 in-major GPA, passing Portfolio Review.  
Exploring of draping techniques for apparel design. Development of original designs on a three-dimensional form.
- DSNF 341. Fashion Design Internship.** (2)  
*Prerequisite:* DSN 340, DSNF 300, DSNF 320, DSNF 350, DSNF 305, DSNF 307, DSNF 355; 2.5 in-major GPA and passing Portfolio Review.  
Course includes 200 hours of field experience in a fashion design internship approved by the Departmental Internship Committee; two semester hours required. This course may be repeated for no more than 8 semester hours of credit. A grade of Pass/Fail is awarded by the departmental internship coordinator. Students cannot receive credit for both DSNF 341 and DSNF 391.
- DSNF 350. History of Fashion Design I.** (3)  
Three hours lecture.  
*Prerequisite:* 2.5 in-major GPA; or permission of instructor.  
A study of the history of fashion as it relates to the development of western dress from 1880 to the present. Fashion will be viewed within the historical, social and cultural environment of the time. Special attention will be given to notable fashion designers for this time period. Students cannot receive credit for both DSNF 353 and DSNF 350.
- DSNF 355. History of Fashion Design II.** (3)  
Three hours lecture.  
*Prerequisite:* 2.5 in-major GPA; or permission of instructor.  
A study of the history of fashion as it relates to the development of western dress over a period of time, circa 3000 BC to 1880. Fashion will be studied within the historical, social and cultural environment of the time. Students cannot receive credit for both DSNF 355 and DSNF 367.
- DSNF 400. Senior Studio I.** (3)  
Six hours studio.  
*Prerequisites:* DSNF 305, DSN 307, DSN 355; 2.5 in-major GPA, passing Professional Skills Review.  
Implementation of target market and fashion trend information to develop and present an apparel line concept.

**404. Apparel Production.** (3)  
Six hours studio.  
*Prerequisites:* DSNF 305, DSNF 307, DSNF 355; 2.5 in-major GPA; passing Professional Skills Review.  
Exploring in problem solving and implementation for apparel line production.

**DSNF 405. Senior Studio II.** (3)  
Six hours studio.  
*Prerequisites:* DSN 402, DSNF 400, DSNF 404; 2.5 in-major GPA, passing Professional Skills Review.  
Continued production of apparel line and refinement of portfolio.

## INTERIOR DESIGN

**DSNI 103. Visual Thinking for Design.** (3)  
Six hours studio.  
*Prerequisites:* "C" or better in DSN 100 and DSN 110; 2.5 in-major GPA.  
An application of design fundamentals and problem solving techniques to two- and three-dimensional design problems for the interior spatial environment, with attention to human factors. Emphasis is on the design process, including conceptual thinking and creative expression. Students cannot receive credit for both DSNI 112 and DSNI 103.

**DSNI 125. Technical Drafting.** (3)  
*Prerequisites:* "C" or better in DSN 100 and DSN 110; 2.5 in-major GPA.  
Six hours studio.  
An introduction to the skills and techniques required in representing designed space and form using conventional architectural drawing drafting standards. Students cannot receive credit for both DSNI 120 and DSNI 125.

**DSNI 200. Sophomore Studio I.** (3)  
Six hours studio.  
*Prerequisites:* "C" or better in DSN 143, DSNI 103, DSNI 125; 2.5 in-major GPA.  
Fundamentals of space planning and spatial development with emphasis on client needs, functionality, and human factors.

**DSNI 202. Presentation Techniques.** (3)  
Six hours studio.  
*Prerequisite:* "C" or better in DSN 143, DSNI 103, DSNI 125; 2.5 in-major GPA.  
An introduction to visualization and presentation techniques for interior design. Graphic skills are developed through the exploration of various media and techniques. Students cannot receive credit for both DSNI 210 and DSNI 202.

**DSNI 205. Sophomore Studio II.** (3)  
Six hours studio.  
*Prerequisite:* DSNI 200 and DSNI 202; 2.5 in-major GPA; passing Basic Skills Assessment.  
A continuation of Sophomore Studio I. This course is the application of the design process, with emphasis on schematic design to small-scale interior design problems.

**DSNI 230. Materials, Finishes and Textiles I.** (3)  
Two hours lecture; two hours laboratory.  
*Prerequisite:* DSNI 125.  
An introduction to the physical properties of and recommended applications for basic materials, finishes and textiles used in interior spaces. The student develops knowledge and skills needed to research and evaluate functional, aesthetic, economic and environmental characteristics of materials, finishes and textiles.

**DSNI 300. Junior Studio I.** (4)  
Eight hours studio.  
*Prerequisites:* DSN 173, DSN 223, DSNI 205; 2.5 in-major GPA; passing Portfolio Review Assessment.  
A comprehensive study of the design process as applied to residential and/or non-residential spaces. Problem solving skills are emphasized in designing spaces that accommodate user needs.

**DSNI 305. Junior Studio II.** (4)  
Eight hours studio.  
*Prerequisites:* DSN 340, DSNI 300, DSNI 320, DSNI 350, DSNI 322; 2.5 in-major GPA.  
A comprehensive study of the design process as applied to residential and/or non-residential spaces. Problem solving skills are emphasized in designing spaces that accommodate user needs.

**DSNI 375. Design Theory and Research. (3)**

Three hours lecture.

*Prerequisite: DSNI 300, DSNI 320, DSNI 322, DSNI 350; 2.5 in-major GPA; or permission of instructor.*

An introduction to facility programming, theory, and research. Emphasis on the formulation of building requirements based on user characteristics and potential constraints. An introduction to the theories that form the foundation for decision-making in interior design and the data collection methods that inform and impact the problem solving process. Various information-gathering techniques are examined. Students cannot receive credit for both DSNI 365 and DSNI 375.

**DSNI 400. Senior Studio I. (3-4)**

Six or eight hours studio.

*Prerequisite: Senior Standing; DSNI 305, DSNI 325, DSNI 355, DSNI 375; 2.5 in-major GPA; Passing Professional Skills Review and Internship Review Assessments; and/or with permission of instructor.*

A comprehensive study of the design process as applied to residential and/or non-residential environments. Problem solving skills are employed in designing spaces to accommodate user needs.

**DSNI 405. Senior Studio II. (3-4)**

Six or eight hours studio.

*Prerequisite: Senior Standing; DSNI 400, DSNI 402; 2.5 in-major GPA.*

A comprehensive study of the design process as applied to residential and/or non-residential environments. Problem solving skills are employed in designing spaces to accommodate user needs.

**DSNI 407. Senior Showcase and Portfolio. (1-2)**

One of two hours lecture.

*Prerequisite: DSN 402; DSNI 400; 2.5 in-major GPA.*

This capstone course is the culminating activity of four years of interior design study. Students confront the challenge of designing and developing their individual portfolios and produc-

ing a senior exhibit. This course also provides: learning experiences that engage student in collaboration, consensus building, leadership, and team work. Students cannot receive credit for both DSNI 407 and DSNI 492.

**DSNI 445. Professional Practice and Ethics. (2)**

Two hours lecture.

*Prerequisites: DSNI 400 and 2.5 GPA in major; permission of instructor.*

This course provides a study of business principles and professional ethics for the practice of interior design. Students cannot receive credit for both DSNI 445 and DSNI 490.

**DESIGN MERCHANDISING****DSNM 107. Visual Studio. (3)**

Six hours laboratory.

*Prerequisite: DSN 100 and DSN 111; 2.5 in-major GPA.*

An application of design fundamentals and problem solving techniques to two- and three-dimensional design problems for the fashion and merchandising environments, with attention to human factors. Emphasis is on the design process, including conceptual thinking and creative expression.

**DSNM 200. Promotion for Design 2-D. (3)**

Six hours studio.

*Prerequisites: "C" or better in DSN 173, DSN 143 and DSNM 107; 2.5 in-major GPA.*

The student is guided through the design process to develop promotional communication solutions that benefit both the retailer and its targeted consumers. Schematic design process (concept development, graphic identification, layout, greeking) and the application of critical thinking skills are emphasized. The student will explore how graphics, symbols, and other imagery can be manipulated to create "a.i.d.a.s." (attention, interest, desire, action, and satisfaction) for selected apparel and interior products and services. Two-dimensional and multimedia advertising formats as well as target customer/

advertiser needs are also examined. Students cannot receive credit for both DSNM 200 and DSNM 243.

**DSNM 205. Promotion for Design - 3-D. (3)**

Six hours studio.

*Prerequisites: DSNM 200 and passing Basic Skills Assessment; 2.5 in-major GPA.*

This course introduces the student to the skills necessary to communicate graphically design in space.

**DSNM 247. Merchandising Mathematics. (3)**

Three hours lecture.

*Prerequisite: DSNM 200; 2.5 in-major GPA.*

A study of the retail mathematics practices used in the procurement and sales of apparel and interior products. Students cannot receive credit for both DSNM 263 and DSNM 247.

**DSNM 300. Visual Merchandising Studio. (3)**

Six hours studio.

*Prerequisite: DSN 220, DSN 223, DSNM 205, DSNM 247; 2.5 in-major GPA; Passing Portfolio Review Assessment.*

This studio course prepares students to learn how to graphically represent visual merchandise products within a retail setting. Students cannot receive credit for both DSNM 300 and DSNM 433.

**DSNM 341. Merchandising Internship. (2)**

*Prerequisite: DSN 340, DSNM 300; DSNM 340, DSNM 345; 2.5 in-major GPA; Passing Professional Skills Review.*

Course includes 200 hours of field experience in a merchandising center approved by the Departmental Internship Committee; two semester hours required. This course may be repeated for no more than 8 semester hours of credit. A grade of Pass/Fail is awarded by the departmental internship coordinator. Students cannot receive credit for both DSNM 393 and DSNM 341.

**DSNM 345. Buying and Procurement for Design. (3)**

Three hours lecture.

*Prerequisite: DSNM 247, DSNM 205; 2.5 in-major GPA; passing Portfolio Review.*

An advanced analysis and manipulation of the professional procedures, formulae, and purchasing negotiations used in product procurement and sales at the trade and retail levels. Students cannot receive credit for both DSNM 345 and DSNM 385.

**DSNM 440. Design Products and Services. (3)**

Three hours lecture.

*Prerequisites: DSNM 341, DSNM 345; 2.5 in-major GPA; passing Internship Review Assessment.*

A study of apparel and interior products and services offerings from budget to designer price points. Emphasis is on market segmentation and target market manipulations. Student cannot receive credit for both DSNM 420 and DSNM 440.

**DSNM 442. Economics of Design. (3)**

Three hours lecture.

*Prerequisite: Senior standing; Passing Internship Review Assessment; ECON 105 with a "C" or better; 2.5 in-major GPA.*

This three-hour lecture course studies the economic, governmental and environmental factors which affect the various segments of the textile, apparel and interiors complex, individually and as a whole. The factors are reviewed and evaluated from a domestic and international perspective. Students cannot receive credit for both DSNM 442 and DSNM 443.

**DSNM 445. Forecasting for Design. (3)**

Three hours lecture.

*Prerequisite: DSN 402, DSNF 350, DSNI 355 and DSNM 440; 2.5 in-major GPA.*

Methods and procedures for forecasting products and market trends in the apparel and interior industry. The capstone course for merchandising students. Students cannot receive credit for both DSNM 445 and DSNM 493.

**ECONOMICS**

**ECON 101. Survey of Economics. (3)**

Three hours lecture.

A study of economic theory, institutions and issues. Emphasis on gaining a broad understanding of economic reasoning and its application to

major contemporary issues. Students who have completed ECON 105 and 106 may not take ECON 101. This course has been approved for Core Curriculum credit in U.S. Perspectives.

**ECON 105. Principles of Macroeconomics. (3)**  
Three hours lecture.

An introduction into the study of scarcity and choice, supply and demand theory, national income accounting, money and banking, monetary and fiscal policy models and how government deals with the problems of inflation, unemployment and economic growth. This course has been approved for Core Curriculum credit in Social and Behavioral Sciences or U.S. Perspectives.

**ECON 106. Principles of Microeconomics. (3)**  
Three hours lecture.

Concentrates on microeconomics: elasticity of demand and supply, consumer and producer behavior, market structure, labor market analysis and general equilibrium. This course has been approved for Core Curriculum credit in Social and Behavioral Sciences or U.S. Perspectives.

**ECON 203. Public Finance. (3)**  
Three hours lecture.

*Prerequisite: ECON 105 or ECON 106.*

All three levels of government are discussed with emphasis on financing federal government. Students are introduced to government taxation.

**ECON 271. Rural Economics. (3)**  
Three hours lecture.

*Prerequisite: ECON 106.*

Investigates resource allocation and problems of the basic industries providing foods and fibers to the U.S. economy. The course analyzes problems arising in the ongoing evolution of demands for utilization of nonurban natural and man-made resources in achieving society's economic objectives.

**ECON 272. Natural Resource Economics. (3)**  
Three hours lecture.

*Prerequisite: ECON 106.*

Analysis of the development, conservation and preservation of natural systems, mineral and energy resources.

**ECON 295. Topics in Economics. (3)**

Three hours lecture.

*Prerequisite: Completion of one of the following: ECON 101,105,106; or permission of the instructor.*

Introduces students to topics of current national and global interest. This course will draw from other social sciences, humanities, and business disciplines while maintaining its emphasis on economics processes and applications. Students may take course up to six credit hours under two different topics.

**ECON 301. The Economics of Entrepreneurship. (3)**

Three hours lecture.

*Prerequisite: Junior standing.*

Examines the nature and significance of the entrepreneurial drive throughout history, focusing on the role that this drive has played in the economic growth of countries, how public policy has fostered this drive, and how this drive is unfolding, both locally and globally, in our current era of rapid technological innovation.

**ECON 305. Intermediate Macroeconomic Theory. (3)**

Three hours lecture.

*Prerequisite: ECON 105 and 106 and junior or senior standing.*

Analyzes the intersectoral determination of national income and employment and the general price level.

**ECON 306. Intermediate Microeconomic Theory. (3)**

Three hours lecture.

*Prerequisite: ECON 106 and junior or senior standing.*

A theoretical study of the firm, markets, the price system and the allocation of resources.

**ECON 307. Mathematical Economics. (3)**

Three hours lecture.

*Prerequisite: ECON 106; MATH 126, or 151; and junior or senior standing.*

Development of selected mathematical and quantitative techniques, with emphasis on the application of those techniques to economic theory and problems.

**ECON 309. Comparative Economic Systems.**

(3)

Three hours lecture.

*Prerequisite: ECON 105, ECON 106, and junior or senior standing.*

Critical study of capitalism, socialism and corporatism. Analysis of contemporary systems with case studies of Japan, France, China, the former Soviet Union, central and eastern European countries, the Baltic nations, and other selected countries.

**ECON 311. Economic Development.**

(3)

Three hours lecture.

*Prerequisite: ECON 105, ECON 106, and junior or senior standing.*

Study of issues, theories and policy alternatives in economic growth and development of less developed countries, poverty and income distribution, demographic factors, major theories of growth, resource limitations, development policies and agencies.

**ECON 313. Public Planning.**

(3)

Three hours lecture.

*Prerequisite: ECON 106 and junior or senior standing.*

History of planning in the public sector, cost-benefit analysis, program budgeting, efficiency criteria and discounting analyzed and specific cases reviewed. Class reports on projects undertaken by local planning agencies.

**ECON 330. Money and Banking.**

(3)

Three hours lecture.

*Prerequisite: ECON 105 and junior or senior standing.*

A study of the functions of money in economic society and of the impact of monetary policy on national income, prices, employment and interest rates. The role of banking in the money supply process is examined.

**ECON 340. Global Economy and Business.**

(3)

Three hours lecture.

*Prerequisite: Junior standing.*

An overview of the global economic environment within which business is practiced and the opportunities and challenges managers face in

doing business across national boundaries. A business core requirement.

**ECON 350. Investment Economics.**

(3)

Three hours lecture.

*Prerequisites: ECON 105 and junior or senior standing.*

Introduction to investment theory, securities markets, risk and returns, mechanics of investment and security analysis.

**ECON 375. Environmental Economics.**

(3)

Three hours lecture.

*Prerequisite: ECON 106 and junior or senior standing.*

Examines the nature and significance of threats to the environment, the history of environmental protection in the United States and the forces shaping public policy. Tools of economics analysis used to compare and contrast various legal and market-oriented approaches in dealing with environmental problems and sustainable development.

**ECON 391. Law and Economics.**

(3)

Three hours lecture.

*Prerequisite: ECON 106 and junior or senior standing.*

Analyzes the application of economic theory in the American judicial system. Investigates the choice of legal rules and regulations on the incentives faced by individuals. Considers the influence of economic development on the evolution of law.

**ECON 408. The History of Economic Thought.**

(3)

Three hours lecture.

*Prerequisite: ECON 105, ECON 106, and junior or senior standing.*

Economic thought studied in relation to: the environment of the contributor, historical perspective of the contribution and the part the contribution played in shaping contemporary economic thought.

**ECON 421. Econometrics.**

(3)

Three hours lecture.

*Prerequisite: STAT 200; ECON 105, 106; MATH 126 or 151; and junior or senior standing.*

This course deals with the application of statistical methods to business and economic data. The reading and interpretation of statistics will be stressed in ECON 442.

**ECON 442. International Trade Theory and Policy. (3)**

Three hours lecture.

*Prerequisite: ECON 105, 106 and junior or senior standing.*

An examination of classical and modern theories of international trade, and the consequences of tariffs, quotas, customs unions and other trade policies for the domestic and international economy.

**ECON 443. International Monetary Theory and Policy. (3)**

Three hours lecture.

*Prerequisite: ECON 105, 106, and junior or senior standing.*

An examination of the determinants of a nation's balance of payments, exchange rate determination, implications of various exchange rate regimes for domestic stabilization policies and the international coordination of monetary and stabilization policy.

**ECON 455. Principles of Managerial Economics. (3)**

Three hours lecture.

*Prerequisites: ECON 106; STAT 200; and junior or senior standing.*

Demonstrates the use of microeconomic theory and quantitative methods in the formulation of business plans and the solution of business problems.

**ECON 461. Industrial Organization. (3)**

Three hours lecture.

*Prerequisite: ECON 106 and junior or senior standing.*

Investigates the relationships among market structures, market conduct and market performance. Examines the rationale for government intervention into or regulation of different industries.

**ECON 480. Labor Economics. (3)**

Three hours lecture.

*Prerequisite: ECON 106 and junior or senior standing.*

Covers history of the labor movement, union-management relations, the nonunionized worker, wage theory and unemployment in context of the application of economic theory to problems of labor.

**ECON 482. Industrial Relations. (3)**

Three hours lecture.

*Prerequisite: ECON 106, 480, and junior or senior standing.*

Study of the industrial relations system as a subsystem of the social system and its linkages with the economic and political subsystems. Covers the collective bargaining system, its history and development, structural problems in industrial relations, public policy framework for collective bargaining, contract negotiations and administration, arbitration and related issues.

**ECON 488. Final Honors Project. (3)**

*Prerequisite: Completion of economics requirements, enrollment in the Honors Academy, senior standing, a minimum 3.5 GPA in all courses and in economics.*

To earn a bachelor's degree with honors in economics, a student may conduct research and write a thesis or prepare for and take a comprehensive examination. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

**ECON 490. Economics Internship. (1-3)**

*Prerequisite: Junior or senior economics major and permission of the instructor.*

A one- or two-semester program of work and study in the student's major area and/or career interest. The number of hours of work, credit hours and grade for the work performed determined by the faculty member or members sponsoring the student. Students may take up to a total of six credit hours – no more than three credit hours per internship site.

**ECON 495. Current Topics in Economics. (3)**

Three hours lecture.

*Prerequisite: ECON 105, ECON 106, and junior or senior standing, or permission of instructor.*

Investigates topics of current and continuing interest not covered in regularly scheduled courses. Students may take course up to six credit hours under two different topics.

**ECON 498. Independent Study. (1-3)**

One to three hours credit per semester.

*Prerequisite: Junior or senior standing.*

See "Independent Study" on p. 53.

For a description of graduate courses, please consult the *Radford University Graduate Catalog*.

## EARLY CHILDHOOD

**EDEC 321. Early Development and Learning: Infants and Toddlers. (4)**

Three hours lecture, one hour laboratory.

*Pre- or Corequisites: 2.5 GPA; HUMD 300 or PSYC 317 or equivalent, or permission of instructor.*

Designed to provide knowledge of the dynamic interrelated physical, social, emotional, and cognitive development of infants and toddlers, and a foundation for understanding learning patterns of young children from birth through three years. Application of appropriate practices that enhance learning will be explored. Theories and methods of child study and observation within cultural and family contexts will be addressed. Students will go to field sites regularly to observe and interact with infants and toddlers.

**EDEC 322. Early Development and Learning: Preschool through Primary Grades (Three years through age eight). (4)**

Three hours lecture, one hour laboratory.

*Pre- or Corequisites: 2.5 GPA; EDEC 321; HUMD 300, or PSYC 317 or equivalent, or permission of instructor.*

Designed to provide knowledge of the dynamic interrelated physical, social, emotional, and cognitive development of children three through eight years of age. Theories of development and methods of child study within cultural and family contexts will be addressed. Learning patterns will be identi-

fied as will appropriate strategies and practices to enhance and support learning and development. Students will go to preschool settings regularly to observe and interact with preschoolers.

**EDEC 323. Language Arts and Literature for Young Children. (3)**

Three hours lecture.

*Pre- or Corequisite: EDEC 322; Sophomore or junior standing; 2.5 GPA*

Addresses the concurrent development and integration of listening, speaking, reading, and writing. Students will establish, organize, and manage the learning environment, including materials, resources, literature, and opportunities for developing young children's oral and written communication skills. Students will become familiar with a variety of genre of children's literature. Various literature extension activities and the love of reading will be fostered. The development, evaluation, and use of media and technology will be integrated throughout the course. Students who have received credit for HUMD 323 cannot also receive credit for EDEC 323.

**EDEC 400/500. Foundations, Programs, and Trends in Early Childhood Education. (3)**

Three hours lecture.

*Prerequisites: Junior or senior standing in IDEC or permission of instructor; 2.5 GPA.*

The historical, philosophical, and social foundations of early childhood education and how these foundations influence current thought and practice will be examined. Students will explore philosophical schools influencing the development of the profession and perspectives on early childhood. Public policies and current trends in America that impact young children and their families will be addressed. Students will research and critically examine various educational programs and curricula for young children.

**EDEC 425/525. Assessment-Based Instruction and Adaptations for Young Children (PreK-3rd Grade). (3)**

Three hours lecture.

*Prerequisite: IDEC major, successful completion of EDEC 322 and 323, EDSP 360 or 361; 2.5 GPA.*

*Corequisite: EDEC 430 or permission of instructor.*

Designed to provide pedagogical concepts and skills for preservice teachers working with pre-school through primary grade children in inclusive classrooms. Informal assessment strategies are applied to individualize instruction and adapt curriculum. The central concepts and tools of inquiry in the social studies/sciences are used to develop integrated curriculum and learning experiences that enhance children's development. Applied use of technology and media will be integrated throughout the course.

**EDEC 430. Practicum in Early Childhood Education. (6)**

2 hours lecture, 4 hours practicum.

*Prerequisites: IDEC major; successful completion of EDSP 360, EDEC 322, and 323, and 2.5 GPA.*

*Corequisite: EDUC 425; or permission of instructor.*

A clinical practicum providing experience and opportunity for application of skills working with young children in inclusive settings under direct supervision for a minimum of 15 hours a week throughout the semester. Students are expected to abide by their cooperating professional's schedule. Students begin the experience in observation and helping roles, and work toward assuming full teaching responsibilities. Weekly seminars focus on development of children's conflict-resolution skills; facilitate self-reflection and professionalism. This course is graded A-F.

**EDEC 445. Administration of Programs for Young Children. (3)**

Two hours lecture, one hour laboratory.

*Prerequisite: IDEC major; senior standing; successful completion of EDEC 321, 322, 323, EDSP 360 or 361; 2.5 GPA; or permission of instructor.*

Addresses early childhood program administration including regulations, personnel, budget, schedules, health, safety, nutrition, anti-bias curriculum for young children, working with families based on family systems theories, documentation, and professionalism. This course requires extensive field experience.

**EDEC 485. Practicum in Administration of Programs for Young Children. (3)**

Two hours seminar; eight hours laboratory.

*Pre- or Corequisite: Successful completion of EDEC 445 and 2.5 GPA.*

A clinical practicum 16 to 18 hours a week throughout the semester that provides the opportunity to gain first-hand administrative experience in programs that address the needs of pre-school children. Students gain direct experience in working with organizational management, budgeting, record-keeping, staffing, program evaluation, food management, legal issues and regulations. Students are expected to abide by their cooperating professional's schedule. Ongoing seminars facilitate students' applications of skills, reflection, and professional growth. Must be arranged with advisor and practicum coordinator two semesters in advance of enrollment.

**EDEC 488. Final Honors Project. (3)**

*Prerequisite: Senior level standing, enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 GPA in all courses and in IDEC coursework.*

The project and topic to be explored will be determined by the student in conjunction with the faculty member with whom the student works and the IDEC program coordinator. Topics may include any of the areas addressed in the IDEC program. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

**EDEC 498. Independent Study. (1-4)**

*Prerequisite: Junior or senior level standing, minimum 2.5 GPA.*

Investigation by the student in areas of interest under the direction of an advisor. Prior permissions are required and arrangements must be made before registration.

See "Independent Study" on p. 53.

## EDUCATIONAL FOUNDATIONS

### **EDEF 320. Introduction to Professional Education.** (3)

Three hours lecture.

*Prerequisite: A minimum GPA of 2.5 on all work at Radford University.*

*Pre- or Corequisite: Course in human growth and development (HUMD 300; or PSYC 218 and PSYC 317)*

Introduces students to teaching as a profession. Topics include teaching as a profession, the organization and culture of schools, legal rights and responsibilities of teachers and students, philosophical and psychological perspectives, historical developments underlying education in the United States, social issues in education, the application of learning theory to instruction and learning environments, basic concepts and principles regarding teaching strategies, assessment and evaluation of student learning, and teaching from a multicultural perspective. Students cannot receive credit for both EDEF 320 and EDUC 320.

## EDUCATIONAL TECHNOLOGY

### **EDET 411. Technology for Middle School Teachers.** (2)

Two hours lecture.

*Prerequisite: Admittance into Middle School Teacher Preparation Program.*

Strengthens skills involving technology and its integration in the middle school classroom. The concentration will be on learning about and manipulating many different types of technologies available in public middle schools. Students will gain ideas and brainstorm strategies to enhance instruction through integration. Students will build a solid resource of ideas for future use with a background of what technology is available.

### **EDET 445. Integration of Educational Technology.** (3)

Three hours lecture.

Prospective teachers will develop critical awareness of instructional technologies in order to successfully integrate technology into their

teaching. The course begins with an overview of the latest research on how people learn. This cognitive science research serves as a diagnostic lens to evaluate the efficacy of the instructional technologies the class uses over the course of the semester. Prospective teachers will be introduced to techniques and methods through modeling and direct hands on experience in a wide array of technologies. Along the way, students will develop skills for identifying appropriate technologies and making decisions concerning when to integrate technology.

### **EDET/EDSP 454. Educational Technology for Diverse Populations.** (3)

Three hours lecture.

Students will develop critical awareness of educational and assistive technologies that support students with disabilities, and other learners with diverse needs. The course begins with an overview of the latest research and evidence-based practice in educational technology applications with a focus on instruction. Participants will explore a wide range of these technology applications with a focus on assistive or adaptive technologies. The course focuses on the historical and legal mandates that guide the integration of assistive technologies into the educational programs of students with disabilities.

## MIDDLE EDUCATION

### **EDME 408. Approaches to Teaching.** (3)

Two hours lecture; two hours laboratory.

*Prerequisites: Admission to Teacher Education Program and a minimum 2.5 GPA.*

In this course the pre-service teacher studies the teaching/learning processes through examining models of teaching. Teacher decision-making in planning is a primary focus as students learn how to plan, how to accommodate diverse learning styles and how to evaluate learning.

### **EDME 409. The Middle School Learner.** (2)

Two hours lecture.

*Prerequisites: Admission to Teacher Education Program and a minimum 2.5 GPA.*

The purpose of this course is to help the

prospective middle level teacher develop in-depth knowledge and understanding of early adolescents as students. The developmental characteristics and needs of early adolescents provide a framework for examining the diversity of students in regard to their abilities and cultural background. Implications are drawn for developing appropriate learning environments to foster development.

**EDME 410. Community: A Middle School Perspective. (2)**

Two hours lecture.

*Prerequisites: Admission to Teacher Education Program and a minimum 2.5 GPA.*

To prepare early adolescents for the 21st Century, middle school educators are challenged to “create small communities for learning” which connect and empower teachers and students. Students study and practice community building through interdisciplinary teaming, advisor/advisee programs and parental involvement.

**EDME 413: Conceptualizing, Planning and Teaching. (2)**

Two hours lecture.

*Prerequisites: Admission to Teacher Education Program and a minimum 2.5 GPA.*

Designed to provide a focus on the teaching/learning processes during the student teaching experience. The goal is to continue to promote reflective teaching practices as students conceptualize, plan and implement lessons in middle level classrooms. Students plan in disciplinary and interdisciplinary groups and examine alternative teaching materials, strategies and methods of assessment.

**EDME 432: Middle Level Teacher Assistant Program. (6)**

Fifteen hours laboratory per week.

*Prerequisites: Admission to Teacher Education Program and a minimum 2.5 GPA.*

This experience involves a placement with a middle level interdisciplinary team and the completion of 15 clinical hours weekly. Students also attend a one hour seminar each week to facilitate the integration of field experiences and course work. Students complete a minimum of 225 hours of field experience.

## READING

**EDRD 314. Development and Instruction for Emergent and Beginning Readers. (3)**

*Prerequisite: 2.5 overall GPA.*

Students will learn developmental reading skills and abilities for emergent and beginning readers. The course specifically focuses on teaching strategies and activities in the areas of word attack, fluency, and comprehension.

**EDRD 413. Early Literacy and Reading. (3)**

Three hours lecture.

*Prerequisites: EDEC 321, EDEC 322, EDEC 323, HUMD 300, and admission to the teacher education program.*

Students will learn developmental reading skills in understanding and fostering emergent literacy skills with a focus on reading. The course specifically focuses on teaching strategies and activities in the areas of word attack, fluency, and comprehension. Students will also learn how to link reading assessment results to their instructional practices.

**EDRD 414. Reading II: Comprehension Instruction and Assessment Practices in Reading. (3)**

Two hours lecture.

*Prerequisites: EDRD 314, EDUC 304 (can be taken concurrently) and admission to Teacher Education Program.*

Designed to teach reading comprehension strategy instruction and developmentally appropriate assessment practices to preservice teachers. The course specifically focuses on approaches to reading instruction, strategies for teaching reading in the content areas, and the administration and use of assessment tools to inform instructional practices in literacy.

**EDRD 415. Interdisciplinary Connections Through Reading and Writing. (3)**

Two hours lecture; 1 hour laboratory.

*Prerequisites: Admission to Teacher Education Program and a minimum 2.5 GPA.*

The primary focus of this course is the active engagement of students as readers and writers across the content areas. Students evaluate texts and learn

ways to make reading and writing more purposeful and meaningful for middle level learners. Fiction and nonfiction books for early adolescents are used as primary tools in the processes.

### **EDRD 416. Content Reading and Literacy. (3)**

*Prerequisite: Admission to teacher education program.*

Introduces pre-service content area teachers to the why and how of promoting basic and higher-order literacy. Reading, writing, and thinking are fostered in the context of specific subject areas.

### **EDRD 498. Independent Study. (1-4)**

One to four hours credit.

*Prerequisites: Admission to Teacher Education Program and a minimum 2.5 GPA.*

Prior permission required; arrangements must be made before registration. See “Independent Study,” p. 53

For a description of graduate courses, consult the *Radford University Graduate Catalog*.

## **SPECIAL EDUCATION**

### **EDSP/COSD 225. Communication Processes, Development, and Disorders. (3)**

Three hours lecture.

Introduces students to professions that serve persons with communication disorders with the causes, nature, symptoms, and management of speech, language, and hearing disorders. Information regarding the normal speech, language, and hearing processes will also be reviewed. Information regarding the referral process, identification, and prevention will also be covered.

### **EDSP 360. Introduction to Early Childhood Special Education. (3)**

Three hours lecture.

*Prerequisites: A minimum 2.5 GPA.*

An overview of early intervention and early childhood special education, including legislation, trends and issues; the etiology and characteristics of disabilities and at-risk conditions; factors influencing development and learning; and services for children with special needs from birth to age eight and their families.

### **EDSP 361. Introduction to Students with Diverse Learning Needs and the Special Education Process. (3)**

Three hours lecture.

*Prerequisite: A minimum of 2.5 overall GPA.*

Provides an overview of the historical, social, and cultural foundations that frame our response to disability and diversity today. Students will gain an understanding of the laws and policies that have shaped educational practice for students with disabilities. An introduction to diverse learning needs (including ADHD and giftedness) and the categories of eligibility for services, the general characteristics and needs of students with exceptionalities and their families, and the current trends and issues in service delivery and special education professional practice will be included. This course must be taken before any other coursework in special education can be completed.

### **EDSP 400. Introduction to Autism Spectrum Disorders. (3)**

Three hours lecture.

Addresses characteristics and diagnosis of autism spectrum disorders including levels of severity; cognitive abilities; medical aspects; communication, language, and social development; and differential diagnoses. The primary emphasis is on autism and Asperger syndrome although Rett syndrome, Childhood disintegrative disorder, and PDD-NOS are also discussed. Students learn the impact of the characteristics of ASD on learning in order to develop an individualized program, which would allow students to access the general curriculum as well as an adapted curriculum. Proactive teaching strategies, accommodations, and modifications that support socialization, communication, and academics are addressed.

### **EDSP 401. Approaches for Supporting and Teaching Individuals with ASD. (3)**

Three hours lecture.

*Prerequisite: EDSP 400.*

Addresses a wide variety of approaches for teaching and supporting individuals with autism spectrum disorders. Included are relationship-based approaches, approaches based on the

theories of applied behavioral analysis, biological or physiological interventions, and other therapeutic interventions (e.g. art, dance, music, auditory integration, discrete trial teaching).

**EDSP 402. Expanding Social Competence for Students with Autism Spectrum Disorders.** (3)

Three hours lecture.

*Prerequisite: EDSP 400.*

Addresses strategies to assist individuals with autism to communicate and socialize. Emphasis is on analysis of environmental demands, assessing social competence, determining individual preferences, and offering instruction to address priority skills that will positively affect socializing in a variety of contexts.

**EDSP 403. Accommodations for Exceptional Learners in the Mainstream.** (1)

One hour lecture.

*Prerequisites: Admission to Teacher Education Program and a minimum 2.5 GPA.*

Provides the prospective secondary teacher with an overview of the educational needs of exceptional learners and the adaptations to accommodate these needs within the mainstream classroom.

**EDSP 404/504. Introduction to Special Education for Secondary Educators.** (3)

Three hours lecture.

*Prerequisite: Admission to the Teacher Education Program.*

*Corequisite: Must be taken with the fall early field experience in secondary education.* Prospective educators in secondary education are introduced to characteristics of exceptional learners, laws governing the delivery of special education and rights of people with disabilities, current trends and issues in special education services, and evidence-based instructional strategies that meet the needs of students with disabilities in a general education setting.

**EDSP 426/526. Introduction to Deaf and Hard of Hearing.** (3)

Three hours lecture.

*Prerequisites: EDSP 361.*

Introduction to the education of deaf and hard of

hearing students (PreK-12) for prospective teachers and other professionals serving deaf/hard of hearing students. Includes legislation, trends, issues, etiology, identification, characteristics, Deaf culture, school-related needs, communication modes, educational placement options, and organizations and agencies relevant to individuals who are deaf and hard of hearing and their families and the professionals who work with them.

**EDSP 427/527. Curriculum and Methods for Deaf and Hard of Hearing Students.** (3)

Three hours lecture.

*Prerequisites: EDSP 426.*

Study of curriculum, methods, techniques, and materials used in the education of deaf/hard of hearing students. Includes information on classroom organization, classroom management, family involvement, instructional planning, development of individualized education plans (IEPs) and individualized family service plans (IFSPs), curriculum adaptations and modifications, community agencies, assessment and evaluation, and standards for professionalism.

**EDSP 428/528. Language Development and Literacy for Deaf and Hard of Hearing Students.** (3)

Three hours lecture.

*Prerequisites: EDSP 426.*

Study of the complex nature of language acquisition and literacy in deaf/hard of hearing students, and techniques for enhancing language and the teaching of reading and writing to this population. Examines current theories and practices in reading and language arts instruction for hearing as well as deaf/hard of hearing children. Presents methods for assessing reading, writing, and language problems in deaf/hard of hearing children, making adaptations and modifications to curriculum, integrating technology, and including parents in the instructional process.

**EDSP 429. Practicum: Special Education: General Curriculum: Secondary.** (6)

*Prerequisite: EDSP 361 and enrollment in the Interdisciplinary Studies Special Education - General Curriculum program on pre-professional field experience status.*

Provides clinical experience in a secondary field placement appropriate to students in a pre-professional teacher preparation program. The field experience is integrated with course work in the Professional Core, which is scheduled simultaneously with this experience. Students apply skills and knowledge in individualized assessment, program planning, and instructional methodology for diverse learners. They gain and enhance their professional skills and dispositions related to communication and collaboration, ethical practice, cultural competence, and professional development. Graded.

**EDSP 430. Practicum: Special Education: General Curriculum: Elementary. (6)**

*Prerequisites :* EDSP 361; *Acceptance into the Teacher Education program on pre-professional field experience status.* Provides clinical experience in an elementary field placement appropriate to students in a pre-professional teacher preparation program. The field experience is integrated with course work in the Professional Core, which is scheduled simultaneously with this experience. Students apply skills and knowledge in individualized assessment, program planning, and instructional methodology for diverse learners. They gain and enhance their professional skills and dispositions related to communication and collaboration, ethical practice, cultural competence, and professional development. Graded.

**EDSP 432. Practicum: Deaf and Hard of Hearing Students. (4)**

*Prerequisites: EDSP 361 and admission to the Teacher Education program on pre-professional field experience status.*  
*Corequisite: EDSP 427, EDSP 462, and EDSP 469.*

Provides structured, sequenced, and supervised clinical field experience that is integrated with coursework in the Special Education Professional Core. Students apply skills and knowledge in assessment, behavior management, program planning, educational technology, communication approaches, and instructional methodology. They gain and enhance their professional skills and dispositions related to communication and collaboration, ethical practice, cultural competence, and professional development. Faculty-directed seminars are included. Pass/Fail.

**EDSP 436. Teaching Infants, Toddlers, and Preschoolers with Disabilities. (3)**

Three hours lecture.

*Prerequisites: EDSP 360 or EDSP 361; 2.5 GPA.*

Addresses methods for providing developmentally and exceptionality appropriate instructional programming for young children with special needs in all areas of development. Includes development of individualized education programs and individualized family service plans.

**EDSP 437. Assessment, Diagnosis, and Evaluation in Early Childhood Special Education. (3)**

Three hours lecture.

*Prerequisites: EDSP 360 or EDSP 361, and 2.5 GPA.*

Provides participants with knowledge of the selection, administration, and interpretation of formal and informal assessment techniques for young children with disabling and at-risk conditions and their families.

**EDSP 438. Program Management in Early Childhood Special Education. (3)**

Three hours lecture.

*Prerequisites: EDSP 360 or EDSP 361, and a minimum 2.5 GPA.*

Addresses administrative aspects of service delivery systems for young children with disabilities or at-risk conditions and their families. Examines legal requirements, funding mechanisms, service coordination, resource acquisition, interagency coordination, integration with peers without disabilities, child find, transition facilitation, professional development, and program evaluation. Includes techniques for working with children, families, educators, related service providers and other human services professionals.

**EDSP 439. Medical and Neurodevelopmental Aspects of Teaching Young Children with Disabilities. (3)**

Three hours lecture.

*Prerequisites: EDSP 360 or EDSP 361, minimum 2.5 GPA.*

Examines the medical and health care needs of infants, toddlers, and young children with and

without disabilities. Includes the role of health care professionals, child abuse and neglect, health and safety, emergency care, management of chronic health impairments, and management of neurodevelopmental and motor disabilities.

**EDSP 440. Practicum in Early Intervention. (3)**

Three course hours credit.

*Prerequisites: IDEC major, successful completion of EDSP 360 or EDSP 361, EDSP 436, EDSP 439, and EDEC 321; minimum 2.5 GPA.*

Pedagogical experience with infants and toddlers with disabilities, developmental delays, at risk conditions, or typical development. Students spend two to three days per week working with very young children in early intervention services, at-risk programs, family homes, and/or child care settings under the direct supervision of a cooperating professional. EDSP 440 is a structured and supervised field experience in the Interdisciplinary Studies Early Childhood (IDEC) program. Weekly seminars provide discussion of current educational practices and issues of concern to educators of infants, toddlers, and preschoolers with special needs and their families. Pass/Fail.

**EDSP 445. Adaptive Strategies in Mathematics. (3)**

Three hours lecture.

*Prerequisites: EDSP 360 or EDSP 361, and minimum 2.5 GPA.*

Prospective educators are prepared with the background knowledge and skills necessary to promote literacy in mathematics for diverse learners. An emphasis is placed on research-based techniques, strategies, and technologies to improve teacher instruction and student understanding of mathematical skills and concepts.

**EDSP 451. Collaborative Consultation and Communication Skills for Special Education. (3)**

Three hours lecture.

*Prerequisite: EDSP 360 or EDSP 361, 2.5 GPA.*

Prospective educators are prepared with the background knowledge and skills necessary to develop and work within collaborative environments designed to enhance the success of

individuals with diverse learning needs in the general education curriculum. Participants will gain understanding of collaborative structures, knowledge of consultations, and the communication skills necessary to become a contributing member of school teams which serve children and families with varying cultural backgrounds, attitudes, feelings, and needs.

**EDSP/EDET 454. Educational Technology for Diverse Populations. (3)**

Three hours lecture.

Students will develop critical awareness of educational and assistive technologies that support students with disabilities, and other learners with diverse needs. The course begins with an overview of the latest research and evidence-based practice in educational technology applications with a focus on instruction. Participants will explore a wide range of these technology applications with a focus on assistive or adaptive technologies. The course focuses on the historical and legal mandates that guide the integration of assistive technologies into the educational programs of students with disabilities.

**EDSP 455:456. Student Teaching in Special Education: Deaf and Hard of Hearing. (6:6)**

*Prerequisites: Admission to teacher education licensure program; successful completion of EDSP 427, 428, 432,462,469; COSD 421, 422, 423 (or demonstrated proficiency in American Sign Language); Admission into the Teacher Education program, passing scores on Praxis I, RVE and VCLA.*

Teacher candidates work with PreK-12 students who are deaf and/or hard of hearing during these courses under the supervision of cooperating teachers and university supervisor. Placements are provided at the preschool or elementary levels and middle (EDSP 455) or high school levels (EDSP 456). Each course represents a one-half semester, full-time placement. The course begins with observation in the classroom and culminates with full responsibility for the cooperating teacher's daily schedule, including provision of direct instruction to students. Grading: A-F.

**EDSP 460. Current Problems in Special Education (topic). (1-4)**

*Prerequisite: Senior Standing.*

Examines a major educational problem, its implications and possible solutions.

**EDSP 462. Proactive Classroom Management and Positive Behavior Support. (3)**

Three hours lecture.

*Prerequisites: EDSP 360 or EDSP 361 and a minimum 2.5 GPA.*

The future educator will learn the skills necessary to effectively manage a classroom environment, conduct functional behavior assessments regarding difficult behavior, and design an individual behavior intervention plan. Related topics include overall behavioral assessment, positive behavior supports, the development and teaching of social skills, prevention, teaching and reactive strategies related to addressing misbehaviors, the design of effective instruction to enhance behavioral success, and research-based models of effective classroom management.

**EDSP 464. Introduction to Students Who Access Adapted Curriculum. (3)**

Three hours lecture.

*Prerequisites: EDSP 360 or 361 and a minimum 2.5 GPA.*

Emphasis is on the psychological, educational, medical, functional, and sociological characteristics of persons classified as having intellectual disability and severe, multiple cognitive and physical or sensory disabilities. Major topics include causes and prevention of intellectual and developmental disability, assessment procedures for identification and instruction, physical and sensory disabilities, educational program planning, student and family involvement and current issues and trends in the field. Collaboration with families and other professionals, culturally sensitive education, and the uses of research-based practices are integrated throughout the course.

**EDSP 466. Teaching Students with Individualized Adapted Curriculum. (3)**

Three hours lecture.

*Prerequisites: EDSP 464, 2.5 GPA.*

Provides prospective teachers with the skills and knowledge necessary to design, implement, and evaluate individualized educational programming for K-12 students with disabilities who require individualized adapted curriculum goals. The course includes assessment strategies, curriculum models, teaching methods, and instructional materials. Emphasis is on development of early and emergent literacy and numeracy skills, functional skills, social skills and self-determination within inclusive settings.

**EDSP 469. Evaluative Techniques. (3)**

Three hours lecture.

*Prerequisites: EDSP 361 or PSYC 401 and a minimum 2.5 GPA.*

An understanding and application of the foundation of assessment and evaluation related to best special education practice is provided in this course. Students are familiarized with the use and interpretation of formal and informal diagnostic tests and procedures. Students will learn about the content, technical adequacy, administration and scoring of diagnostic educational instruments that assist with identifying disabilities and instructional planning.

**EDSP 471. Teaching the Gifted Child. (3)**

Three hours lecture.

*Prerequisites: EDSP 361 and a minimum 2.5 GPA.*

Introduces students to the gifted child, including identification, characteristics, special problem areas, and appropriate curricular approaches in teaching, and guiding the gifted.

**EDSP 472. Characteristics of Students with Disabilities who Access the General Education Curriculum. (3)**

*Prerequisites: EDSP 360 or 361 or PSYC 401, 2.5 GPA.*

Provides future educators an understanding of definitions, characteristics, and the learning and behavioral support needs of students with disabilities who are accessing the general education curriculum at the elementary, middle, and high school levels. Characteristics and educational needs of students with learning disabilities, intellectual disabilities, emotional and behavioral disabilities, other health impairments, traumatic brain injury, developmental delays, autism, multi-

ple disabilities, and orthopedic impairments will be addressed. Students will understand how the experiences of individuals with disabilities can impact families, as well as the individual's ability to learn, interact socially, and live as a fulfilled, contributing member of their communities.

**EDSP 488. Final Honors Project. (2-3)**

Note: Special Education Honors students wishing to take the Final Honors Project should enroll in EDUC 488. See p. 291 for catalog description of EDUC 488.

**EDSP 498. Independent Study. (1-4)**

One to four hours credit.

*Prerequisite: Junior or senior standing.*

Prior permission must be received; arrangements must be made before registration.

See "Independent Study," p. 53.

For a description of graduate courses, consult the *Radford University Graduate Catalog*.

## EDUCATION

**EDUC 200. Exploring Education. (2)**

Three hours lab/field experience and seminars. A field experience course (90 hours of lab/ field experience) with associated professional development seminars (15 hours). Provides opportunities for students to explore key aspects of the teaching profession and to begin the process of professional development as educators. Students examine the teaching profession and the "fit" between the career and their personal experiences, characteristics, and aspirations. Seminars provide a general overview of key concepts regarding teaching and teacher preparation and licensure in Virginia.

**EDUC 304. Teaching Language Arts. (3)**

Three hours lecture.

*Pre- or Corequisite: EDRD 314; 2.5 G.P.A. in previous course work.*

Designed to provide teacher candidates with the knowledge, skills, and dispositions essential to implementing a comprehensive approach to language arts instruction in Pre- K through grade

6 classrooms, the course focuses on principles and practices of comprehensive approaches to language arts instruction, including literacy acquisition and development, the social context of literacy, literacy assessment, the needs of English language learners, critical literacy, and the integration of the language arts - oral language (speaking and listening), reading, writing, word study, and visual literacy - through the use of best practice strategies and high quality children's literature.

**EDUC 310. Teaching and Learning Elementary Science. (3)**

Three hours lecture.

*Prerequisite: 2.5 overall GPA.*

Teacher candidates learn developmentally appropriate, research-based teaching methods for science in the elementary classroom. The pedagogy will build upon the science courses taken by students, and will provide concrete experiences for implementation and incorporation of national and state standards in planning and instruction.

**EDUC 400. Trends in Science Education. (3)**

Three hours lecture.

Study of trends in science education.

**EDUC 402/FORL 402. Second Language Teaching Methods. (3)**

Three hours lecture.

*Prerequisite: FORL 400.*

Provides students with concepts necessary to analyze traditional and innovative second language teaching methods. Provides rationale for selection, application, and assessment of methodological choice.

**EDUC 410. Teaching and Learning Elementary Mathematics. (3)**

Three hours lecture.

*Prerequisites: Admission to the Teacher Education program.*

This pedagogy course builds on the mathematics courses taken by students and provides the skills needed to be effective elementary school educators. Students discuss applications of learning theories to mathematics education and

are provided with concrete experiences that can be utilized in the elementary classroom. The incorporation of national and state standards in planning and instruction will be modeled.

**EDUC 425. Curriculum, Instruction, and Teaching: Social Studies Connections. (3)**

*Prerequisite: Admission to Elementary Teacher Education program.*

*Corequisite: EDUC 430.*

Teacher candidates will plan, develop, implement, and evaluate social studies lessons and instructional units that are appropriate for elementary-aged children, and align with state and national standards. Using historical inquiry as an instructional focus, teacher candidates will learn how to teach to the curiosity of learners and provide authentic learning experiences that engage students as well as develop their critical thinking skills. Teacher candidates will also examine curricular materials to detect and avoid bias in order to create safe, equitable learning environments for all students.

**EDUC 430. Field Applications of Professional Studies in the Elementary Classroom. (6)**

*Prerequisite: Admission to Teacher Education Program.*

*Corequisite: EDUC 410, EDUC 425, and EDRD 414.*

Provides clinical experience in an elementary classroom with a qualified clinical faculty member and a cohort leader/field supervisor. Field experience begins with observation and limited participation and culminates in two-week classroom immersion experience and teaching of an instructional unit of study. Provides opportunities for interns to make applications from previous and concurrent pedagogy courses. Involves learning about classroom management strategies and creating classroom cultures that promote student learning. Provides opportunities for interns to make applications from previous and concurrent pedagogy courses. Involves applications of teaching practices appropriate for diverse students.

**EDUC 440. Teaching Grades 6-12. (3)**

*Prerequisites: EDSP 361, and admission into the Teacher Education program.*

*Corequisite: EDUC 441, EDRD 416, EDET 445.*

Will assist pre-service teachers in developing requisite knowledge and skills for teaching in grades 6-8 in science, mathematics, social sciences and English. This course is taught in conjunction with a field experience in grades 6-12.

**EDUC 441. Field Experience for Grades 6-12. (3-6)**

*Prerequisites: Admission in the Teacher Education program.*

*Corequisite: EDET 445, EDRD 416, EDUC 440 and EDSP 362*

This field experience is taken in conjunction with EDUC 440 Teaching Grades 6-12 (Science, Mathematics, Social Science, and English). It is intended for the pre-service content area teacher to learn the secondary adolescent culture, and to develop and practice skills appropriate for these learners. Pass/Fail.

**EDUC 442. Teaching Grades 9-12. (3)**

*Prerequisites: EDUC 440 and 441, EDRD 416, EDET 445.*

*Corequisite: EDUC 452.*

Will assist pre-service teachers in integrating their content, professional, and pedagogical knowledge and skills to devise learning experiences which are meaningful to secondary students in grades 9-12. Utilizing investigations, central concepts of their content area, inquiry, and knowledge of the reform movements, this course will allow students to practice skills and to explore the problems in planning learning activities, implementing lessons and teaching secondary science, mathematics, social sciences and English.

**EDUC 450. Student Teaching: Grades PreK-6. (6-12)**

*Prerequisite: Meet eligibility for student teaching. (See p. 102.)*

Provides extensive clinical experience on one or more grade levels appropriate to the certification area. Experience begins with observation

and limited participation; culminates in assumption of full responsibility in the classroom. Special seminars are regularly scheduled to enhance professional development of student.

**EDUC 451. Student Teaching:  
Grades 6-8. (6-12)**

*Prerequisite: Meet eligibility for student teaching. (See p. 102.)*

Clinical experience on one grade level appropriate to licensure area; begins with observation and limited participation and culminates in assumption of full responsibility in the classroom. Taken in conjunction with EDME 413.

**EDUC 452. Student Teaching  
Grades 9-12. (12)**

*Prerequisite: Meet eligibility for student teaching (See p. 102).*

A clinical experience in grade levels 9-12 for persons seeking certification to teach secondary schools. Begins with observation and culminates in assumption of full responsibility in the classroom. Pass/Fail.

**EDUC 453. Student Teaching:  
Grades K-12. (6-12)**

*Prerequisite: Meet eligibility for student teaching (See p. 102).*

Provides clinical experiences in at least two settings: one in an elementary school and one in a middle school or high school. Begins with observation and limited participation and culminates in assumption of full responsibility in the classroom. Special seminars regularly scheduled to enhance professional development of student. Pass/Fail.

**EDUC 460. Current Problems in  
Education (Topic). (1-4)**

*Prerequisite: Senior standing.*

Examines a major educational problem or trend, its implications and possible solutions or impact on education.

**EDUC 488. Final Honors Project. (2-3)**

*Prerequisite: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 GPA in all courses and in educational studies.*

The project and the topic to be explored will be determined by the student, the faculty member with whom the student works, and the student's major program area. (Honors project may be a written or performance-based project.) In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated. No student may enroll in the Honors project during the semesters of blocking or student teaching. See "Honors Academy" p. 80.

**EDUC 498. Independent Study. (1-4)**

*Prerequisite: Junior or senior standing.*

*Prior permission required; arrangements must be made before registration.*

See "Independent Study," p. 53.

For a description of graduate courses, consult the *Radford University Graduate Catalog*.

## ENGLISH

**ENGL 200. Literary Texts and Contexts. (3)**  
Three hours lecture.

Study of selected works of literature with an emphasis on developing: 1) critical reading skills within historical, cultural, national, and ideological contexts, and 2) an understanding of the various ways of reading and writing about human experience. This course has been approved for Core Curriculum credit in Humanities.

**ENGL 201. Readings in World Literature. (3)**  
Three hours lecture.

*Prerequisite: CORE 101.*

Study of selected works in World literature with emphasis on the development of critical reading skills within a historical, cultural, and ideological national context. This course has been approved for Core Curriculum credit in Global Perspectives.

- ENGL 202. Readings in British Literature. (3)**  
 Three hours lecture.  
*Prerequisite: CORE 101.*  
 Study of selected works in British literature with emphasis on the development of critical reading skills within a historical, cultural and ideological national context.
- ENGL 203. Readings in American Literature. (3)**  
 Three hours lecture.  
*Prerequisite: CORE 101.*  
 Study of selected works in American literature with emphasis on the development of critical reading skills within a historical, cultural, and ideological national context. This course has been approved for Core Curriculum credit in Humanities or U.S. Perspectives.
- ENGL 300. Introduction to English Studies (WI). (3)**  
 Three hours lecture.  
*Prerequisites: CORE 101 and CORE 102.*  
 This writing-intensive course introduces students to fundamental skills of literary analysis, the conventions of different literary genres, the use of various literary critical practices, and research and writing in the discipline. The course also offers an overview of other aspects of the discipline – e.g., language and linguistics – with attention to possible career options.
- ENGL 306. Professional Writing. (3)**  
 Three hours lecture.  
*Prerequisites: CORE 101 and CORE 102, and junior or senior standing or permission of instructor.*  
 Introduces students to writing for their careers. Assignments may include instructions, a proposal, a resume, letters, memos, short reports, and computer graphics.
- ENGL 307. Business Writing. (3)**  
 Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102, and junior or senior standing or permission of instructor.*  
 Prepares students to cope with the strategy and writing of a wide range of informative and persuasive business letters and reports.
- ENGL 309. Fiction Writing. (3)**  
 Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102.*  
 For students who plan to teach creative writing at secondary level and needs introduction to fiction writing methods; for student who, regardless of background and vocational plans, is interested in developing fiction writing potential or improving writing skills; or for student of literature interested in writing fiction and sharpening critical appreciation.
- ENGL 310. Poetry Writing. (3)**  
 Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102.*  
 For student who plans to teach creative writing at secondary level and needs introduction to poetry writing methods; for student who, regardless of background and vocational plans, is interested in developing poetry writing potential; or for student of literature interested in writing poetry and sharpening critical appreciation.
- ENGL 312. Creative Nonfiction Writing. (3)**  
 Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102.*  
 For student who plans to teach writing and needs introduction to creative nonfiction methods; for student who wishes to write for newspapers, magazines, or other publications; for student interested in developing skills in writing essays and literary journalism; or for student interested in developing writing and critiquing skills.
- ENGL 314. Topics in Literature. (3)**  
 Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102.*  
 Investigation of a literary topic of current or continuing interest not normally covered in regularly scheduled courses. Topic announced with each offering of course. May be taken twice for credit. Depending upon the topic, this course may be used to meet requirements for the minor in Appalachian Studies or Women's Studies.

- ENGL 321. The Study of Fiction.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102.*  
A study of fiction as a literary genre, with its own specific types and critical theories.
- ENGL 322. The Study of Poetry.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102.*  
A study of poetry as a literary genre, with its own specific types and critical theories.
- ENGL 323. The Study of Drama.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102.*  
A study of drama as a literary genre, with its own specific types and critical theories.
- JENGL 330. British Literary History I.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102.*  
Traces British literary history from its origins until the end of the seventeenth century. Focusing on significant literary works and authors, it examines the literary genres, periods, and traditions that shaped a national literature in early Britain.
- ENGL 331. British Literary History II.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102.*  
Traces British literary history from the end of the seventeenth century to the present. Focusing on significant literary works and authors, it examines the literary genres, periods, and traditions that shaped national literature in Britain since the seventeenth century.
- ENGL 340. American Literary History.** (3)  
*Prerequisite: CORE 101 and CORE 102.*  
Traces American literary history from the colonial period to the present. Focusing on significant literary works and authors, it examines the literary genres, periods, and traditions that shaped national literature in America since its beginnings as European colonies.
- ENGL 402. Teaching Writing: Theories and Practices.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102.*  
Teaches students the latest theories and practices governing the teaching of written composition. Students write expository essays, work in writing support groups, develop writing assignments, study the writing process, and learn to respond to and evaluate student writing. Course required to satisfy certification requirements for English majors intending to teach at the secondary level.
- ENGL 403. Grammar and Style for Writers.** (3)  
Lecture and discussion.  
*Prerequisite: CORE 101 and CORE 102.*  
Analysis and practice of various prose styles to prepare students for professional courses; study of grammatical concepts relevant to effective writing.
- ENGL 406. Advanced Technical Writing.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102, junior or senior standing and ENGL 306.*  
Teaches students to master the advanced technical writing skills required to write professional reports, proposals, manuals and other communications studied in the course. Individual and team-written projects assigned.
- ENGL 407. Technical Editing.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102, junior or senior standing, ENGL 306 and ENGL 403.*  
Prepares students to analyze the readability of technical documents written in the workplace (e.g., instructions, user manuals, abstracts, proposals), and to deal with problems of correctness, consistency, clarity, organization and rhetorical effectiveness of language and layout. Realistic weekly assignments include excerpts from technical manuals, insurance and government documents, instructions and reports.

**ENGL 409. Advanced Fiction Writing. (3)**

Three hours lecture.

*Prerequisite: CORE 101 and CORE 102, ENGL 300 and ENGL 309.*

For students wishing to develop potential in fiction writing. May be taken twice for credit.

**ENGL 410. Advanced Poetry Writing. (3)**

Three hours lecture.

*Prerequisite: ENGL 310.*

For students wishing to develop potential in poetry writing. May be taken twice for credit.

**ENGL 420. Introduction to Literary Criticism. (WI) (3)**

Three hours lecture.

*Prerequisite: CORE 101 and CORE 102; ENGL 300 or permission of department chair.*

Survey of major texts of literary criticism from classical period to present; includes analysis of major problems of literary criticism and introduces dominant modes of critical thought today.

**ENGL 424. The Study of Children's Literature. (3)**

Three hours lecture.

*Prerequisite: CORE 101 and CORE 102.*

*Priority given to (1) IDSE majors and (2) IDSM majors.*

Course familiarizes students, particularly prospective elementary school teachers, with classic and contemporary children's literature. Students study children's literature by focusing on historical contexts, genres, evaluation criteria, media adaptations, selection aids and procedures, and book-related activities. The intent is to develop knowledgeable, thoughtful students who are skilled in using children's literature in classroom or library settings.

**ENGL 425. The Study of Adolescent Literature. (3)**

Three hours lecture.

*Prerequisite: CORE 101 and CORE 102.*

Familiarizes students with classical and contemporary literature whose audience is primarily adolescents. Students are led to understand why teenage readers make the literature choices they do. The course helps students develop a

positive attitude toward this kind of literature and understand why 324 this kind of literature should have a place in the reading program of adolescents. Course required to satisfy licensure requirements for English majors intending to teach at the secondary level.

**ENGL 426. Teaching English in the High School. (2)**

Two hours lecture

*Prerequisite: CORE 101 and CORE 102; admission to the Teacher Education Program. Corequisite: Junior clinical field experience or "blocking."*

Provides instruction in the methods of teaching English language arts in the secondary school. Designed to allow students to explore student-centered approaches to teaching literature and language, and to practice designing lessons and making long-range plans. Meeting two hours weekly, the course satisfies licensure requirements for English majors intending to teach at the secondary level. It does not satisfy English major requirements, but is a requirement in the professional education core.

**ENGL 428. Planning and Teaching Seminar. (1)**

One hour lecture.

*Prerequisite: All Core Curriculum requirements; EDEF 320, EDUC 440, 441, and ENGL 402, 425, 426 and 463.*

*Corequisite: EDUC 452.*

One-week planning seminar followed by weekly hour-long seminar meetings. Taken concurrently with EDUC 452, the student teaching field experience. All seminar meetings will allow students opportunities to collaborate on problems and planning directly related to the student teaching experience. Student may not receive credit if previously taken ENGL 427.

**ENGL 431. Medieval Literature. (3)**

Three hours lecture.

*Prerequisite: CORE 101 and CORE 102; ENGL 300 or permission of department chair.*

Study of major literary works composed in England during the Middle Ages (6th through 15th centuries). Special attention to the works and language of Chaucer.

- ENGL 433. Renaissance Literature.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102; ENGL 300 or permission of department chair.* Study of selected writers, themes and genres in 16th century England.
- ENGL 434. Seventeenth Century Literature.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102; ENGL 300 or permission of department chair.* Introduction to varied prose and poetry of 17th century. Special attention to the works of Milton.
- ENGL 435. Restoration and Eighteenth Century.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102; ENGL 300 or permission of department chair.* Survey of several chief works of English literature from Dryden through Samuel Johnson, including the development of the English novel.
- ENGL 437. Romanticism.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102; ENGL 300 or permission of department chair.* Study of the British Romantic Movement.
- ENGL 438. Victorian Literature.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102; ENGL 300 or permission of department chair.* Study of major British poets and prose writers from 1825-1900.
- ENGL 439. Modern British Literature.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102; ENGL 300 or permission of department chair.* Study of works of British writers of first half of 20th century and appraisal of outstanding literary tendencies of the age.
- ENGL 442. Early American Literature.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102; ENGL 300 or permission of department chair.* Study of colonial writers of Virginia and New England and major figures of American literature to 1830.
- ENGL 443. The American Renaissance.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102; ENGL 300 or permission of department chair.* Study of several major 19th century American writers and general intellectual climate of the period.
- ENGL 444. American Realism and Naturalism.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102; ENGL 300 or permission of department chair.* Study of work of selected American realists and naturalists from late 19th and 20th centuries.
- ENGL 445. Modern American Literature.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102; ENGL 300 or permission of department chair.* Study of major poets and novelists between 1900 and World War II with consideration of how their works relate to intellectual currents of the period.
- ENGL 446. Appalachian Folklore.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102.* Study of the mountain verbal lore of tales, ballads and sayings; nonverbal or partially verbal lore of customs, games and rituals; material lore of structure, designs and landscapes. Field collections and written analyses required. This course may be used to meet requirements for the minor in Appalachian Studies.
- ENGL 447. Appalachian Literature.** (3)  
Three hours lecture.  
*Prerequisite: CORE 101 and CORE 102; ENGL 300 or permission of department chair.* Establishment of standards for identifying Appalachian literature; study of selected works

representative of the mountain culture. This course may be used to meet requirements for the minor in Appalachian Studies.

**ENGL 449. African American Literature. (3)**

Three hours lecture.

*Prerequisite: CORE 101 and CORE 102;*

*ENGL 300 or permission of department chair.*

Study of literature written by African Americans. Scope includes all genres and periods. Enables students to understand African American literature both in itself and within the larger context of American literature and culture.

**ENGL 450. Native American Literature. (3)**

Three hours lecture.

*Prerequisite: CORE 101 and CORE 102;*

*ENGL 300 or permission of department chair.*

Study of various tribal literatures, including traditional oral texts and transitional and contemporary works in English by Native American authors.

**ENGL 451. Contemporary Literature. (3)**

Three hours lecture.

*Prerequisite: CORE 101 and CORE 102; ENGL 300 or permission of department chair.*

Study of representative works of second half of the 20th century: American, British and world.

**ENGL 453. The Female Literary Tradition. (3)**

Three hours lecture.

*Prerequisite: CORE 101 and CORE 102; ENGL 300 or permission of department chair.*

Study of the distinctive literary heritage shared by women writers in England and North America from the Renaissance to the present. The theoretical grounding of the course is current French and Anglo-American feminist criticism, from which perspective the course traces the development of a women's literary tradition in English and considers a number of issues pertinent to the study of women's writing: women's relationship to a dominant literary tradition, representations of female experience in both the dominant and the female tradition, gender and genre, and female creativity. This course may be used to meet requirements for the minor in Women's Studies.

**ENGL 454. Literature and the Environment. (3)**

Three hours lecture.

*Prerequisite: CORE 101 and CORE 102.*

Examines literature concerning the relationship between humans and the environment. Study of landmark non-fictional works of an emerging ecological ethic, as well as fictional works that invite an ecocritical approach. They will examine how changing literary interpretations of the land have influenced attitudes toward non-human nature, and how cultural values have shaped our definitions of nature, our perceptions of it, and our interaction with the natural world.

**ENGL 463. Grammar and Language for Teachers. (3)**

Three hours lecture.

*Prerequisite: CORE 101 and CORE 102.*

Primarily intended for prospective teachers of English language arts, this course offer illuminated by the history and development of the language, by language acquisition theory (psycholinguistics) and by social dimensions of language (sociolinguistics). Required for English majors preparing to teach in secondary schools; recommended also for all students preparing to teach at the following levels: elementary, middle and special education.

**ENGL 464. The History of the English Language. (3)**

Three hours lecture.

*Prerequisite: CORE 101 and CORE 102.*

Study of history and development of English language from its origins to present.

**ENGL 465. English Linguistics. (3)**

Three hours lecture.

*Prerequisite: CORE 101 and CORE 102.*

Study of major theories, methods, and techniques of linguistic analysis. Emphasis placed on application to the English language.

**ENGL 470. The Author in Context (WI). (3)**

Three hours lecture.

*Prerequisite: CORE 101 and CORE 102; ENGL 300 or permission of department chair.*

Study of a single author's work in view of the

literary, biographical, historical and cultural contexts that shaped it, and the critical contexts within which it is read. The course emphasizes instruction and practice in writing for complex rhetorical situations within the discipline of English Studies. May be taken more than once for credit with focus on a different author. Depending upon the topic, this course may be used to meet requirements for the minor in Women's Studies.

**ENGL 472. Readings in Shakespeare. (3)**

Three hours lecture.

*Prerequisite: CORE 101 and CORE 102; ENGL 300 or permission of department chair.*

Critical study of representative works of Shakespeare.

**ENGL 488. Final Honors Project. (2-3)**

*Prerequisite: CORE 101 and CORE 102, senior standing, enrollment in Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 GPA in all courses and in English.*

To earn a bachelor's degree with honors in English, a student may conduct research, and write a thesis or prepare for and take a comprehensive examination. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

**ENGL 490. Summer Workshop. (3)**

*Prerequisite: CORE 101 and CORE 102.*

Designed to give students concentrated study in a specialized area of English. Grading on Pass/Fail basis but may be taken for a letter grade with the permission of the chair.

May be taken twice for credit. Depending upon the topic, this course may be used to meet requirements for the minor in Appalachian Studies.

**ENGL 495. English Internship. (1-12)**

*Prerequisite: CORE 101 and CORE 102, ENGL 306. ENGL 407 highly recommended.*

Offers opportunity through experiential learning to apply English skills and learn about careers in business and technical writing or other non-teaching fields. Internship consists of placement with a business or governmental agency interested in utilizing the liberal arts background and writing skills

obtained through English coursework. Credit hours vary according to the number of hours a week and the number of weeks in the internship. Interns must have junior or senior standing, a 3.0 minimum average in English courses, and approval of department chairperson. Grading on Pass/Fail basis. May be taken twice for credit, but for no more than 12 hours total.

**ENGL 496. Senior Seminar. (WI) (3)**

Three hours seminar.

*Prerequisite: ENGL 420 and Senior status as an English major.*

The objective of this course is twofold: (1) to invite students of language, writing, and literature to participate in the theoretical debates surrounding the study of English; (2) to afford each student the opportunity to pursue a semester-long research project culminating in a senior essay which focuses on an interest the student has developed during prior course work.

**ENGL 498. Independent Study. (1-6)**

See "Independent Study" on p. 53.

For a description of graduate courses, please consult the *Radford University Graduate Catalog*.

**EXERCISE, SPORT AND HEALTH EDUCATION**

**ESHE 102. Aquatic Fitness. (1)**

Three hours lecture/laboratory.

*Prerequisite: Student should be comfortable in the water.*

Acquaints students with basic fitness principles and offers them a variety of aquatic exercise forms to help maintain or improve their level of fitness.

**ESHE 103. Conditioning. (1)**

Three hours lecture and laboratory.

Develops basic understanding of the value of fitness. Various methods of training give students an opportunity to improve level of physiological fitness.

**ESHE 110, 111, 115, 116, 117, 120, 121, 122, 124, 130, 136.**

**Sport Activities. (1 hr. each)**

Two contact hours per week.

15-week and 7.5-week courses are offered. 7.5-week courses may be blocked together for 2 credit hours. Practice and study of sport and physical activity skills. Activities include: badminton, 110; bowling, 111 (special fee); beginning tennis, 115; track and field, 116; racquetball, 117; basketball, 120; beginning volleyball, 121; softball, 122; soccer/indoor soccer, 124; karate, 130; Tae Kwon Do, 136.

**ESHE 201. Introduction to Athletic Injuries. (3)**

Three hours lecture.

*Prerequisite: BIOL 310 or BIOL 322.*

Introduction to the field of athletic training with emphasis on the history of the National Athletic Training Association, certification guidelines, policies and procedures, risk management, roles and responsibilities of athletic trainers. Common sports-related injuries and illnesses will be discussed with an emphasis on the proper methods for prevention, recognition, and immediate care and rehabilitation of those conditions.

**ESHE 210. Introduction to Teaching K-12 Physical Education. (2)**

One hour lecture; two hours laboratory.

*Prerequisite: 15 semester hours completed.*

Teacher candidates will gain an understanding of the history, philosophy, sociology, and current models of teaching physical education. The course provides an overview of the teacher licensure process for health and physical education in the Commonwealth of Virginia.

**ESHE 212. Introduction to Sport Management. (3)**

Three hours lecture.

*Prerequisite: Fifteen credit hours.*

Designed to provide students with an overview of the sport management/administration profession and the array of careers currently available in the sport industry. Studies the impact of social, historical, health and economic trends on the growth of sport in the United States and through-

out the world. Special emphasis is placed on ethical and diversity issues as they relate to the sport management profession. Information related to the governance of sport organizations is studied.

**ESHE 243. Lifeguard Training. (2)**

One hour lecture; two hours laboratory.

*Prerequisite: Continuously swim 500 yards using crawl, breaststroke, elementary backstroke and sidestroke; tread water, surface dive and swim underwater 15 yards.*

Prepares individuals for the job of life guarding at pools and small lakes. American Red Cross certification is available for those who meet course requirements.

**ESHE 262. Introduction to Asian Martial Arts. (3)**

Two hours lecture; two hours laboratory.

Survey of Asian martial arts concepts and cultural interpretations for self defense, defensive tactics, and personal protection. Introduction of international issues, rituals, values, and performance of major escapes, locks, holds, counters, and defense against weapons.

**ESHE 294. Motor Development. (2)**

Two hours lecture/laboratory.

*Pre- or Corequisite: ESHE 210.*

A study of motor skill development as a result of human growth and maturation throughout the lifespan. It provides students with a background to explain motor performance via differences in development and motor development. Students are given opportunities to observe performances and apply motor development principles in practice. The course is requisite to the Theory and Practice methods courses within the ESHE teaching concentration.

**ESHE 301. Theory and Practice of Fitness/Wellness. (2)**

One hour lecture; two hours laboratory.

*Prerequisite: HLTH 200 and ESHE 294.*

Provides students with a comprehensive study of principles and methods of teaching basic skills as applied to aerobic conditioning, anaerobic conditioning activities, and lifetime wellness activities. Students will become familiar with methods used

for the assessment of the components of fitness. Contains both physical activity and simulated/clinical practice-teaching requirements.

**ESHE 302. Theory and Practice of Individual/Dual Activities. (2)**

One hour lecture; two hours laboratory.  
*Prerequisite: ESHE 210 and ESHE 294.*

Teacher candidates will design and implement developmentally appropriate physical education teaching practices for individual and dual activities. Candidates will also develop motor skill competence in a variety of individual and dual physical activities.

**ESHE 303. Advanced Conditioning. (1)**

Three hours lecture and laboratory.  
Provides students with an opportunity to achieve advanced levels of physical fitness and to study various training techniques.

**ESHE 304. Theory and Practice of Team Sport Activities. (2)**

One hour lecture; two hours laboratory.  
*Prerequisite: ESHE 210 and ESHE 294.*  
Provides an overview of school-based curricular offerings related to team sport activities. Students will become familiar with the skills and the content of a wide variety of team sports. Contains both physical activity and peer/clinical teaching requirements.

**ESHE 305. Principles and Practice of Strength and Conditioning. (3)**

Three hours lecture.  
*Prerequisite: HLTH 200; minimum 2.5 cumulative GPA.*

This course is designed to develop the practical skills necessary to design strength and conditioning programs. Special emphasis is placed on the ability to evaluate exercise movements, prescribe appropriate exercise programs, and support program prescription with sound knowledge of anatomical and physiological adaptation to exercise.

**ESHE 306. Theory and Practice of Cooperative Games and Activities. (2)**

One hour lecture; two hours laboratory.  
*Prerequisite: ESHE 210.*

Teacher candidates will design and implement developmentally appropriate physical education teaching practices for cooperative and adventure activities. Candidates will also develop motor skill competence in a variety of physical activities.

**ESHE 310. Multicultural Self Defense Education. (3)**

Three hours lecture/laboratory.  
Introduces students to the self defense applications of Japanese karate and jujitsu; Korean taekwondo and hapkido; and Chinese kung fu and tai chi. The concept of the multicultural martial arts matrix will be employed.

**ESHE 315. Physical Activity and Aging. (3)**

Three hours lecture.  
*Prerequisite: BIOL 105 and Junior standing; minimum 2.5 cumulative GPA.*

Provides the student the opportunity to study the many individual facets of exercise, fitness and the aging process. Given the rapid increase in the number of elderly persons in our society, the student of the 21st century should be able to relate to and understand the many factors that affect the elderly from the health and fitness point of view.

**ESHE 330. Advanced Karate. (1-3)**

Three hours laboratory.  
*Prerequisite: Permission of instructor.*  
(May be taken for a total of six semester hours of credit.) Provides the standards for Kumite through the level of Black Belt.

**ESHE 341. Legal and Ethical Issues in Sports. (3)**

Three hours lecture.  
*Prerequisite: ESHE 212 and junior standing; minimum 2.5 cumulative GPA.*

Designed to introduce students to the legal doctrines, major statutes, standards and case law that establish legal responsibilities, rights, privileges and controls related to the field of exercise and sport sciences.

- ESHE 343. Lifeguard Training Instructor. (2)**  
One hour lecture, two hours laboratory.  
Prepares aquatic professionals to teach Life-guard Training. American Red Cross Instructor certification is available to those who meet the course requirements.
- ESHE 350. Sport and Exercise Psychology. (3)**  
*Prerequisite: PSYC 121; minimum 2.5 cumulative GPA.*  
Provides students with an overview of concepts and principles essential to understanding the behavioral aspects of sport and exercise. Emphasis is given to the conceptual frameworks and the applied aspects of performance enhancement, mental skills, exercise behavior and motivation, social factors, and psychology of injury. Applications are made to the athlete/participant, exercise leader and sport coach.
- ESHE 358. Technology for Exercise, Sport and Health Education. (3)**  
Two hours lecture, two hours laboratory.  
*Prerequisite: ESHE major and junior standing; minimum 2.5 cumulative GPA.*  
Students shall acquire the knowledge and skills to understand and use “high tech” exercise equipment, personal computer, related software, and main frame systems employed in commercial fitness/wellness centers, hospitals, and education centers.
- ESHE 360. Marketing of ESHE. (3)**  
Three hours lecture.  
*Prerequisite: Minimum 2.5 cumulative GPA.*  
Examines the entrepreneur’s role with emphasis on marketing and promotion. Studies and applies methods employed to promote, market, select and administer all aspects of exercise, sport and health programs.
- ESHE 361. World Martial Arts. (3)**  
Three hours lecture.  
Analyzes the physical skills and cultural changes affecting the adaptation and development of classical and contemporary martial arts in the United States.
- ESHE 362. Principles of Self Defense. (3)**  
Three hours lecture.  
Examines avenues of self defense, personal survival methods and danger prevention strategies including: defense for assault, rape, home security, environmental awareness, ethics, moral and legal ramifications of self protection.
- ESHE 363. Seminar in Professional Fieldwork. (1)**  
One hour lecture.  
*Prerequisite: Junior standing; minimum 2.5 cumulative GPA.*  
Examines issues in Commercial Fitness/Sports Medicine. Provides information for resume, interviewing, job search skills and contracts. This course is required for admittance to ESHE 463. Pass/Fail.
- ESHE 364. Pre-Professional Fieldwork in ESHE. (3)**  
*Prerequisite: Junior standing and instructor’s permission; minimum 2.5 cumulative GPA.*  
Provides junior ESHE students with the opportunity to integrate previous course work with practical field experience. Offers students 120-150 on-site work hours to apply theory to practice.
- ESHE 370. Sociocultural Aspects of Sport. (3)**  
Three hours lecture.  
*Prerequisite: ESHE 212 and junior standing; minimum 2.5 cumulative GPA.*  
The purpose of this course is to introduce the student to sport specific sociocultural perspectives as they apply to the study of sport management. Topics may include race/ethnicity, gender and social class, and globalization as these report to sport. Students will demonstrate the ability to assess the effect of sport in both America and global societies.
- ESHE 382. Methods for Teaching K-12 Physical Education. (4)**  
Three hours lecture; two hours field experience.  
*Prerequisite: ESHE 210; minimum 2.5 cumulative GPA.*  
Teacher candidates will gain an understanding of developmentally appropriate physical education teaching practices for teaching elementary

through secondary school-aged youngsters. The course builds upon previous curriculum courses taken by teacher candidates and addresses the fundamental instructional skills needed for successful teaching in elementary, middle, and high school physical education.

**ESHE 385. Teaching Physical Education for Inclusion. (2)**

Two hours lecture.

*Prerequisite: ESHE 210.*

Provides students with an understanding of teaching K-12 physical education to children with disabilities. Explores the characteristics of children legally classified as having a disability and ways to program for inclusion in school-based physical education. Students develop the ability to plan and assess to facilitate inclusion, in particular utilizing instructional and curricular modifications for safe and effective learning environments of physical activity.

**ESHE 388. Coaching the Athlete. (3)**

Three hours lecture.

*Prerequisite: Junior standing; minimum 2.5 cumulative GPA.*

Develops an understanding of the obligations a coach has to the athlete, school and community.

**ESHE 390. Kinesiology. (3)**

Two hours lecture; two hours laboratory.

*Prerequisite: BIOL 322 or BIOL 310 or BIOL 311 (students in the Sports Medicine concentration must complete BIOL 310 and BIOL 311); minimum 2.5 cumulative GPA.*

Explores the study and analysis of human motion.

**ESHE 391. Exercise Science. (4)**

Four hours lecture.

*Prerequisites: BIOL 310/311 or BIOL 322; minimum 2.5 cumulative GPA.*

Provides an understanding of the biomechanical and physiological aspects of physical activity. The course includes study of the immediate and long term effects of physical training and sport performance. Students will be expected to analyze human motion from a mechanical perspective as well as describe the muscular and metabolic functioning of various systems.

Students are expected to be able to apply principles of their area of study.

**ESHE 392. Exercise Physiology. (3)**

Two hours lecture; two hours laboratory.

*Prerequisite: BIOL 322 or BIOL 310 and BIOL 311 (students in the Sports Medicine concentration must complete BIOL 310 and BIOL 311); minimum 2.5 cumulative GPA.*

Provides understanding of exercise physiology and its ramifications. Includes study of immediate and long-range effects physical exertion and training have on organic functions of the body.

**ESHE 395. Motor Behavior. (3)**

Three hours lecture.

*Prerequisite: PSYC 121; minimum 2.5 cumulative GPA.*

Provides essential knowledge about the process of learning and performing motor skills. Studies the process of change in the ability of a person to perform a motor skill as a result of deliberate practice. Students are also expected to understand the psychological factors contributing to performance. Combining motor learning and sport psychology principles, students are expected to design practice and performance conditions that optimize the learning and performance of sport and movement skills in their area of study.

**ESHE 396. Assessment and Prescription in Exercise, Sport and Health Education. (3)**

Two hours lecture; two hours laboratory.

*Prerequisite: HLTH 200 and ESHE 391 or ESHE 392; minimum 2.5 cumulative GPA.*

Designed to examine the techniques of assessing physical fitness and provide practice assessing physical fitness components. This information will be interpreted and developed into an exercise prescription. Advanced techniques of assessment will be used in this class.

**ESHE 397. Health/Fitness Program Development. (3)**

Three hours lecture.

*Prerequisite: ESHE 390 and 392, or ESHE 391; minimum 2.5 cumulative GPA.*

Students shall acquire the knowledge and skills to develop fitness and health promotion programs

for individuals with a variety of needs. In addition, they will develop an understanding of the procedures necessary to evaluate and contract with vendors who supply health and fitness services.

**ESHE 405. Personal Training Review. (3)**

Three hours lecture.

*Corequisite: ESHE 390 and ESHE 392, or ESHE 391 or permission of instructor; minimum 2.5 cumulative GPA.*

Provides a review of kinesiology and exercise physiology as they apply to personal training. In addition, students will have experience in applying the principles of personal training. Students will be eligible to sit for a personal training certification at the end of this course.

**ESHE 415. Issues in Sport Management. (3)**

Three hours lecture.

*Prerequisite: ESHE 212 or permission of instructor; minimum 2.5 cumulative GPA.*

Principles of organization and administration in a variety of sport related settings. Issues concerning facilities, equipment, philosophy, budget, scheduling, public relations, staffing, diversity and management style are discussed.

**ESHE 453. Student Teaching in Physical Education: Grades K-12. (12)**

*Prerequisite: Meet eligibility for student teaching (See p. 102).*

Provides clinical experiences in at least two settings: one in an elementary school and one in a middle or high school. Begins with observation and limited participation and culminates in assumption of full responsibility in the classroom. Special seminars are regularly scheduled to enhance professional development of students. Pass/Fail.

**ESHE 460. Exercise Leadership. (3)**

Three hours lecture.

*Prerequisite: HLTH 200 and ESHE 392.*

Develops the knowledge and skills that are essential to lead exercises. A wide variety of health, fitness and wellness activities will be included and range from procedures to be used for one-on-one personal training to large group classes.

**ESHE 461. Organization and Administration of Health/Fitness Programs. (3)**

Three hours lecture.

*Prerequisite: HLTH 200 and one of the following: ESHE 360 or ESHE 460.*

Focuses on the development, organization, implementation and administration of health, fitness, wellness and other health promotion programs. It includes basic information on facility and staffing requirements for such programs.

**ESHE 462. Senior Capstone Experience. (1)**

Two hours lab.

*Prerequisites: Completion of 86 credit hours and ESHE 395.*

This seminar course will provide students with a culminating research, writing, and presentation experience. Students will complete a written synthesis of research on a topic of their interest, and will create and present their synthesis to students and faculty. Pass/Fail.

**ESHE 463. Fieldwork in ESHE. (3, 6, 9, or 12)**

50 contact hours per credit hour.

*Prerequisite: Completion of all required ESHE and HLTH courses and a minimum cumulative grade point average of 2.5 and a 2.5 grade point average in the major. Students must be completing ESHE 364 and may not exceed 9 hours in ESHE 463.*

Course provides students opportunities to integrate previous course work with practical field experience. Pass/Fail.

**ESHE 475. Applied Physical Education Assessment. (3)**

Three hours lecture.

*Prerequisite: ESHE 210; minimum 2.5 cumulative GPA.*

Teacher candidates will develop the skills needed to design, implement, and assess an outcomes-based curriculum in physical and health education. It focuses on pedagogical assessment and will include various forms of alternative assessments, such as current technologies, computer-based tools, and student portfolios.

**ESHE 488. Final Honors Project. (2-3)**

*Prerequisites: Enrollment in the Honors Academy, completion of all other Honors Academy*

requirements, a minimum 3.5 GPA in all courses in the Department of Exercise, Sport, and Health Education.

Project and the topic to be explored will be determined by the student and the faculty member with whom the student works. Honors project may be written or a written and performance-based project. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

**ESHE 496. Topical Seminar in ESHE. (1-3)**

*Prerequisite: Minimum 2.5 cumulative GPA.*

One to three hours lecture or laboratory equivalent. Exploration of a specific area of current in topics to be selected. May be taken for up to six hours of credit.

**ESHE 498. Independent Study. (1-6)**

*Prerequisite: Junior standing 2.5 or higher GPA.*

See "Independent Study" on p. 53.

**FINANCE**

**FINC 251. Personal Finance. (3)**

Three hours lecture.

*Prerequisite: Sophomore standing or permission of instructor.*

Deals with personal financial planning including asset accumulation, insurance, savings, credit management, asset conservation and estate planning. This course may not be taken by finance majors for fulfillment of the finance option requirements.

**FINC 332. Intermediate Business Finance. (3)**

Three hours lecture.

*Prerequisite: FINC 331.*

Applies the analytical tools acquired in FINC 331 Introduction to Business Finance to further explore the theory and practice of financial decision making to enhance firm value. Topics include advanced capital budgeting techniques, cost of capital, capital structure, dividend policy, and mergers and acquisitions.

**FINC 335. Financial Markets and Institutions. (3)**

Three hours lecture.

*Prerequisite: FINC 331; junior or senior standing.*

Examines markets and intermediaries that service the supply and demand for funds in a free enterprise economy.

**FINC 336. Principles of Real Estate. (3)**

Three hours lecture.

Provides a study of the basic principles and practices of real estate that are involved in the ownership and transfer of real property. Attention given to the economic and social impact of real estate, the real estate market, property rights, property ownership, real estate investment and financing real estate.

**FINC 341. Insurance I. (3)**

Three hours lecture.

Provides a study of analysis of risks, policy provisions, different types of insurance, organizational structures of insurance companies, social insurance, and regulation of the insurance industry.

**FINC 351. Personal Financial Planning. (3)**

Three hours lecture.

*Prerequisites: FINC 331 or FINC 251; ACTG 211; ECON 105; ECON 106; STAT 200.*

Covers the general principles of financial planning. Topics include time value of money, financial planning process, client interactions, personal financial statements, personal cash flow management, education funding, retirement planning, special circumstances, buying vs. leasing decisions, and the business of financial planning.

**FINC 381. Investment Analysis. (3)**

Three hours lecture.

*Prerequisite: FINC 331.*

Provides a survey and an analysis of different types of financial securities and the markets in which they are traded. It focuses on both traditional securities, such as stocks and bonds, and derivative instruments, such as futures, options, and swaps.

- FINC 431. Retirement and Estate Planning.** (3)  
Three hours lecture.  
*Prerequisites:* Junior or senior standing, FINC 331 and FINC 351.  
Retirement planning provides individuals with knowledge of both public and private retirement plans and systems. Estate planning focuses on the efficient conservation and transfer of wealth, consistent with the client's goals. Issues that an individual faces in planning for retirement, or in planning his or her estate are discussed.
- FINC 434. Bank Management.** (3)  
Three hours lecture.  
*Prerequisite:* FINC 331.  
Intended to provide student with information on both the structure and functions of commercial banks, and on established and new practices of bank management with emphasis on reserves, credit, investment and service. Cases used occasionally to simulate and find solutions to real world problems.
- FINC 436. Real Estate Finance.** (3)  
Three hours lecture.  
*Prerequisite:* FINC 331; FINC 336.  
Provides a study of the basic principles involved in financing transactions in real estate. Attention given to sources of funds, methods of financing, real estate investment analysis and tax consequences of real estate transactions.
- FINC 438. Financial Decision Making.** (3)  
Three hours lecture.  
*Prerequisite:* FINC 332.  
The capstone study of the application of financial policy. Emphasis on problem solving through the use of cases. Course integrates all financial areas.
- FINC 439. International Finance.** (3)  
Three hours lecture.  
*Prerequisite:* FINC 331 or permission of instructor.  
Deals with the international dimension of business finance with a focus on the globalization of financial markets.
- FINC 441. Insurance II.** (3)  
Three hours lecture.  
*Prerequisite:* FINC 331.  
Covers the appropriate uses of insurance contracts, such as property, casualty, life, health, disability, and annuity contracts for individual and business insurance planning. It also covers rate-making, operating and investing practices of insurers.
- FINC 451. Advanced Financial Planning.** (3)  
Three hours lecture.  
*Prerequisites:* FINC 341; FINC 351; FINC 381; FINC 441; ACTG 411.  
The culminating experience in financial planning will include: a review and expansion of the overall financial planning process with a comprehensive client financial planning case, trusts, insurance, estate planning and taxation are discussed.
- FINC 471. Special Topics in Finance.** (1-4)  
One to four hours lecture.  
*Prerequisite:* Approval of instructor.  
Examines topics of special interest in finance not covered in current course offerings. May be taken more than once for a maximum of four hours credit.
- FINC 472. Independent Study.** (1-4)  
Gives an individual student the opportunity to examine a topic of personal interest in more depth than is possible in any existing course. See "Independent Study" on p. 53.
- FINC 481. Global Portfolio Wealth Management.** (3)  
Three hours lecture.  
*Prerequisites:* FINC 381 and FINC 439 or FINC 381 and permission of instructor.  
Provides a global view on investment opportunities and fundamental coverage of portfolio management, including stock valuation, derivatives, and wealth management techniques.
- FINC 488. Final Honors Project.** (2-3)  
*Prerequisites:* Completion of business core, enrollment in the Honors Academy, senior standing, a minimum GPA of 3.5 in all courses and in finance.  
Research project in finance. In order to receive honors credit, a student must earn a grade of "A"

or “B” for the final project. Course may not be repeated.

**FINC 490. Finance Internship. (3)**

*Prerequisites: The student must be a junior or senior finance major, a cumulative GPA of 2.5 or higher and permission of the instructor.*

A one-semester program of work and study in the student’s major area and/or career interest. Learning objectives, qualifications and hours of work approved by faculty coordinator and sponsoring agency. Final grade determined by supervising faculty. Graded A-F. Course may not be repeated for a better grade. For a description of graduate courses, please consult the *Radford University Graduate Catalog*.

## FOREIGN LANGUAGE

**FORL 100. Elementary Conversation in Critical Languages. (4)**

Four hours lecture and activity.

*Prerequisite: Written permission of the Critical Language Program Coordinator.*

Elementary practice in listening comprehension of and in speaking a critical language. Three hours of drill and conversation with tutors plus self-study and practice. This course has been approved for Core Curriculum credit in Foreign Languages.

**FORL 103. Trademarks in Chinese Culture.(3)**

Three hours lecture.

This course explores major trademarks of Chinese culture and will be taught in English. Topics include cultural traditions, superstition, philosophy, history, geography, family and gender, arts, music, movies, religions, medicine, food, education, business and interpersonal communication styles, and the role of government in historical and contemporary contexts. This course has been approved for Core Curriculum credit in College Core A-Global Perspectives.

**FORL 109F/109G/109M/109S/. Study Abroad Practicum. (3-8)**

A directed program of travel study designed to augment a student’s knowledge of the language and culture of a particular country (generally

French, German, or Spanish). Students will receive a minimum of 15 hours per week of formal language instruction in addition to being involved in a total immersion living situation. Permission by the department chair is required prior to enrollment. This course has been approved for Core Curriculum credit in Foreign Languages.

**FORL 200. Intermediate Conversation I in Critical Languages. (4)**

*Prerequisite: FORL 100 in the same language or the equivalent and written permission of the Critical Language Program Coordinator.*

Intermediate practice in listening comprehension of and in speaking a critical language. Three hours of drill and conversation with tutors plus self-study and practice. This course has been approved for Core Curriculum credit in Foreign Languages.

**FORL 204. Masterpieces of German Literature in Translation. (3)**

*Prerequisites: Completion of ENGL 101 and 102 (or the equivalent).*

Study of masterpieces of German literature translated into English.

**FORL 209F/209G/209M/209S. Study Abroad Practicum. (3-8)**

*Prerequisite: 4 hours of language instruction or two years in high school.*

A directed program of travel study designed to augment a student’s knowledge of the language and culture of a particular country (generally French, German, or Spanish). Students will receive a minimum of 15 hours per week of formal language instruction in addition to being involved in a total immersion living situation. Permission by the department chair is required prior to enrollment. This course has been approved for Core Curriculum credit in Foreign Languages.

**FORL 210. Intermediate Conversation II in Critical Languages. (4)**

*Prerequisite: FORL 200 in the same language or the equivalent and written permission of the Critical Language Program Coordinator.*

Intermediate practice in listening comprehension of and in speaking a critical language. Three hours of drill and conversation with tutors plus self-study and practice. This course

has been approved for Core Curriculum credit in Foreign Languages.

**FORL 309F/309G/309M/309S. Study Abroad Practicum. (3-18)**

*Prerequisite: 12 hours of language instruction or three years in high school.*

A directed program of travel study designed to augment a student's knowledge of the language and culture of a particular country (generally French, German, or Spanish). Students will receive a minimum of 15 hours per week of formal language instruction in addition to being involved in a total immersion living situation. Permission by the department chair is required prior to enrollment. This course has been approved for Core Curriculum credit in Foreign Languages.

**FORL 409F/409G/409M/409S. Study Abroad Practicum. (3-18)**

*Prerequisite: 18 hours of language instruction or four years in high school.*

A directed program of travel study designed to augment a student's knowledge of the language and culture of a particular country (generally French, German, or Spanish). Students will receive a minimum of 15 hours per week of formal language instruction in addition to being involved in a total immersion living situation. Permission by the department chair is required prior to enrollment. This course has been approved for Core Curriculum credit in Foreign Languages.

**FORL 488. Final Honors Project. (2-3)**

*Prerequisites: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, a 3.5 minimum GPA in all courses and in foreign languages.*

Project and topic to be explored will be determined by the student and the faculty member with whom the student works. (Honors project may be a written or a written and performance-based project.) In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

## **FORENSIC SCIENCE**

**FOSC 201. Innovations in Forensic Science. (3)**

Three hours lecture.

*Prerequisites: BIOL 104:105 or BIOL 131:132 or CHEM 101:102 or permission of instructor.*

Designed for students new to the Forensic Science Minor or those interested in the discipline, this course provides an overview of current and innovative concepts, methods, and controversies in the Forensic Sciences, including Forensic Anthropology, Biology, Chemistry, and Digital Forensics. Topics include the nature of scientific inquiry, testing, and interpretation of evidence in the Forensic Sciences. Students participate in mock scientific forensic investigations from initial field search and recovery to final laboratory analyses of human remains and associated evidence.

**FOSC 210/ANSC 210. Introduction to Forensic Anthropology. (3)**

Three hours lecture.

*Prerequisite: ANSC 101, or permission of instructor.*

Serves as an introduction to the field of forensic anthropology, the identification and analysis of human remains in a legal context. It includes a brief study of the major bones of the human body, their growth, development, variation, and initial treatment and examination. Through lectures, readings, and discussions, emphasis is placed on the major methods and techniques forensic anthropologists use to identify unknown human remains for law enforcement, including preliminary discussions of determination of age, sex, ancestry, and stature from the human skeleton. It also includes discussions of determination of time since death (or postmortem interval), manner of death, as well as differentiating antemortem, perimortem, and postmortem trauma. The role of the forensic anthropologist in mass disasters and human rights abuse cases is also considered. Students cannot receive credit for both ANTH 230 AND ANSC 210.

**FOSC 211/ANSC 211. Forensic Archaeology. (3)**

Three hours lecture.

*Prerequisites: ANSC 101, or permission of instructor.*

An introduction to the major methods of forensic archaeology, the application of archaeological theory and method to crime scene investigation and recovery. A focus will be on field methods for search and recovery of human remains and other forensic evidence, including mapping and geophysical remote sensing methods, initial recognition and excavation of human and other forensic remains, and collection of soil, botanical, and entomological evidence. Through a combination of lecture and field exercises, the course will also consider the major variables which affect recognition and recovery of forensic remains, including the taphonomic effects of weathering, natural decay, water, fire, faunal and floral degradation. Students cannot receive credit for both ANTH 232 and ANSC 211.

**FOSC 401. Forensic Science Research. (3)**

Three hours lecture.

*Prerequisite: FOSC 201 and permission of the instructor.*

This course provides an overview of current research in the Forensic Sciences. Through seminar discussions of current literature, cutting-edge developments in Forensic Anthropology, Biology, and Chemistry, as well as Digital Forensics are investigated. Students will learn, through reading the primary literature, to critically evaluate research in the discipline and receive the background and training necessary to conduct their own original research in Forensic Science. Students are required to design and conduct their own directed research project in the field of Forensic Science of their choice. This course serves as the capstone experience for students with the Interdisciplinary Minor in Forensic Science.

**FOSC 420/ANSC 420. Advanced Forensic Anthropology. (4)**

Three hours lecture; three hours laboratory.

*Prerequisites: ANSC 201, ANSC 210, and ANSC 320; or ANTH 120, ANTH 230, ANTH 320; or permission of instructor.*

Offers advanced hands-on experience and training in the identification of unknown human

skeletal remains. Students will conduct skeletal analyses focusing on basic vital statistical parameters like age, sex, race, and stature. Other topics reviewed will include the role of the forensic anthropologist in crime scene investigation and recovery of skeletonized human remains, determination of time since death, skeletal trauma and pathology, and special techniques in forensic anthropology. Students cannot receive credit for both ANTH 420 and ANSC 420

**FRENCH**

**FREN 100. Elementary French. (4)**

Four hours lecture and language practice. An introduction to French; acquisition of a basic active command of French; emphasis on listening comprehension, speaking, reading and writing. This course has been approved for Core Curriculum credit in Foreign Languages.

**FREN 200. Intermediate French I. (4)**

Four hours lecture and language practice.

*Prerequisite: FREN 100 or two years of high school French.*

A continuation of the study of the fundamentals of the language and continued development of the language skills. This course has been approved for Core Curriculum credit in Foreign Languages.

**FREN 210. Intermediate French II. (4)**

Four hours lecture and language practice.

*Prerequisite: FREN 200 or two years of high school French.*

A review of basic French grammar and practice in speaking, listening, reading, and writing. This course has been approved for Core Curriculum credit in Foreign Languages.

**FREN 300. Readings in French. (4)**

Four hours lecture and language practice.

*Prerequisite: FREN 210 or three years of high school French.*

Devoted to developing reading, writing, oral and aural skills. This course has been approved for Core Curriculum credit in Foreign Languages.

**FREN 320. Topics in French Cinema. (4)**

Four hours lecture.

*Prerequisite: FREN 210.*

Survey of contemporary French films and the history of French cinema from 1930 to the present, with the integration of French films in their cultural background. Can be taken twice for credit with different topics. This course has been approved for Core Curriculum credit in Foreign Languages.

**FREN 361. Advanced Grammar and Composition. (4)**

Four hours lecture.

*Prerequisite: FREN 300 or four years of high school French.*

Intensive study of grammar and composition.

**FREN 362. Advanced Readings. (4)**

Four hours lecture.

*Prerequisite: FREN 300 or four years of high school French.*

For students who wish to improve their reading ability in French. An intensive reading course in French.

**FREN 451. Survey of French Literature. (4)**

Four hours lecture.

*Prerequisite: FREN 300 or four years of high school French.*

A comprehensive view of French literature through analysis of selected major literary French works of the 19th and 20th centuries. All work conducted in French.

**FREN 460. Special Topics. (3-4)**

Three or four hours lecture.

*Prerequisite: FREN 300 and junior standing.*

Advanced study of topics in language, literature, or culture. All work conducted in French. May be taken twice for credit.

**FREN 470. Masterpieces of French Literature. (3-4)**

Three or four hours lecture.

*Prerequisite: FREN 300.*

A critical study of masterpieces of French literature by genre. May be taken twice for credit. All work conducted in French.

## **GEOLOGY**

**GEOL 100. Earth Resources and Natural Hazards. (4)**

Three hours lecture; two hours laboratory.

Examines the effect of geologic processes and hazards on human activities, the appraisal of human impact on the natural physical environment, and the geologic occurrence, availability and use of mineral and energy resources. This course has been approved for Core Curriculum credit in Natural Sciences.

**GEOL 105. Exploring Earth. (4)**

Three hours lecture; two hours laboratory.

Develops understanding of physical aspects of the science of geology, including study of the earth's materials, processes and structure. GEOL 105 will satisfy half the general education laboratory science requirement. Students who have earned credit for GEOL 101 may not also earn credit for GEOL 105. This course has been approved for Core Curriculum credit in Natural Sciences.

**GEOL 106. The Earth Through Time. (4)**

Two hours lecture; Six hours laboratory.

*Prerequisite: GEOL 105.*

Examines the historical aspects of geology, including the history of the physical events and life during the planet's evolution. GEOL 106 will satisfy the College Core B laboratory science requirement. – Physical and Natural Sciences.

**GEOL 310. Mineralogy. (4)**

Two hours lecture; six hours laboratory.

*Prerequisite: GEOL 105.*

*Corequisite: CHEM 101 or permission of instructor.*

Introduces students to concepts and techniques involved in the study of minerals, both on a macroscopic and microscopic scales. Study of mineral formation, major mineral groups, their crystallography, compositions, structures, classification, identification and environmental aspects. Introduction to principles involved in the investigation of optical properties of minerals in thin section under petrographic microscope. Techniques include microphotography and automated, digital image analysis of minerals.

Introduction and demonstration of the X-Ray Diffractometer, Scanning Electron Microscope and Electron Microprobe as instruments for mineralogical analysis.

**GEOL 312. Igneous and Metamorphic Petrology.** (4)

**Two hours lecture; six hours laboratory.**

*Prerequisite: GEOL 310.*

Introduction to composition, texture, classification, origin, evolution and distribution of igneous and metamorphic rocks based on established field relationships and experimental determinations. Laboratory emphasis on hand samples and thin-sections.

**GEOL 320. Sedimentary Petrology and Stratigraphy.** (4)

**Three hours lecture; two hours laboratory.**

*Prerequisite: GEOL 310.*

Introduction to origin, composition, texture, classification, transportation and deposition of sediments and interpretation of sedimentary deposits. Laboratory emphasis on collecting and analyzing sediments and sedimentary rocks, including hand samples and thin-sections.

**GEOL 335. General Paleontology.** (4)

**Three hours lecture; two hours laboratory.**

*Prerequisite: GEOL 106.*

Study of fossil plant and animal phyla; emphasis on principles of paleontology as well as the taxonomic classification, principal morphologic characters and general evolutionary development of important fossil groups.

**GEOL 360/GEOS 350. Geomorphology.** (4)

**Three hours lecture; two hours laboratory.**

*Prerequisite: GEOL 105.*

Introduction to surficial processes and landforms. Fluvial, eolian, glacial, karst and coastal zone processes analyzed. Map and air photo interpretation included.

**GEOL 361. Geology of Virginia.** (4)

**Three hours lecture; three hours laboratory.**

*Prerequisites: GEOL 105 and either GEOL 100 or GEOL 106.*

Survey of geologic features of Virginia, emphasizing minerals, rocks, fossils and physiograph-

ic/geologic provinces; development of Virginia through geologic time; mineral wealth, and environmental issues in Virginia. Students cannot receive credit for both GEOL 261 and GEOL 361.

**GEOL 365. Oceanography.** (4)

**Three hours lecture; two hours laboratory**

*Prerequisite: Eight hours from any of the following natural sciences: Astronomy, Biology, Chemistry, Geology, Meteorology, Physical Science Processes, or Physics.*

Introduction to the physical, chemical, geological, and biological processes in the marine environment and their interaction. Includes analysis of topical issues such as global climate and sea level changes, mineral and energy resources from the sea, marine pollution, and law of the sea. Student may not receive credit if previously taken GEOL 361 and GEOL 362.

**GEOL 406/PHYS 406. Geophysics.** (4)

**Three hours lecture; two hours laboratory.**

*Prerequisites: GEOL 105 or ASTR 111; and PHYS 221:222 or PHYS 111:112; and MATH 152; or permission of instructor.*

Examination of the basic principles and techniques of modern geophysical methods, and the applications of these methods to site investigations for engineering and environmental geologic projects. Some Saturday labs may be required.

**GEOL 408. Spatial Data Applications in Geology.** (4)

**Three hours lecture; two hours laboratory.**

*Prerequisites: 12 hours of geology and permission of the instructor.*

Introduction to the study of the theoretical and practical analysis of spatial data in geology. Included will be map reading, photo interpretation and the use of remote sensing, image processing, and geographic information systems to interpret geologic spatial information for resource exploration and environmental management.

**GEOL 440. Structural Geology. (4)**

Three hours lecture; three hours laboratory.

*Prerequisite: GEOL 310.*

Description and field recognition of geological structures of the earth's crust; includes fundamentals of rock mechanics and applications of stress and strain theory to the origin of structures, tectonics of mountain-building, and global plate tectonics.

**GEOL 441. Geologic Field Methods. (4)**

Two hours lecture; four hours laboratory.

*Prerequisite: GEOL 440.*

Introduction to techniques and basic concepts of geologic field methods. Emphasis is placed on data collection and mapping in a variety of field situations and in the reporting, interpretation, and presentation of field data in paper and electronic form.

**GEOL 445. Applied Geology Summer Field School. (6)**

Approximately two months correspondence and 40 hours of field work and classroom instruction per week.

*Prerequisite: GEOL 105; and either GEOL 100 or GEOL 106.*

Intensive training in geologic field methods with emphasis on mapping, data collection and the geology of Virginia with applications to engineering and environmental concerns and to land use planning. The university campus serves as the base from which field studies are conducted. The course requires overnight excursions permitting the examination of a wide variety of geologic field conditions including field trip stops in all the geologic provinces of Virginia. Course may require transportation, food and camping fees. Course will not substitute for GEOL 441, Geologic Field Methods, for students majoring in geology.

**GEOL 451. Regulatory Issues in Environmental Geology. (3)**

Three hours lecture.

*Prerequisites: GEOL 474 (Hydrogeology); and either senior standing or permission of the instructor.*

Investigates the societal and regulatory framework within which much of the professional practice of environmental geology occurs. The

relevant current and developing legislation will be addressed, along with the roles of federal, state, and municipal authorities in promulgation of the law. Class discussions and assignments will emphasize the functions of the practicing professional geologist in the various research, regulatory, and consulting roles related to environmental regulation.

**GEOL 455. Principles of Engineering Geology. (4)**

Three hours lecture; three hours laboratory.

*Prerequisites: GEOL 105; and either GEOL 100 or GEOL 106; and mathematics through trigonometry. Minimum of one semester of physics is strongly recommended.*

A study of the application of geologic principles and data collection techniques to the evaluation of design and construction problems relating to engineering projects including dams, highways, landfills, tunnels and reservoirs, including an overview of availability and suitability of soil and rock as construction materials.

**GEOL 460. Senior Seminar In the Geological Sciences. (3)**

Three hours lecture.

*Prerequisite: GEOL 312.*

Introduces students to the geological profession, and how geoscientists communicate and present scientific data. Students will gain expertise in critical analysis of scientific and technical data, and critiquing information from both non-scientific and scientific sources. Students will gain practice in various written and oral presentation styles such as for professional presentations at meetings, and scientific articles and industry reports.

**GEOL 461. Regional Geology of the United States. (4)**

Three hours lecture; three hours laboratory.

*Prerequisite: GEOL 320.*

Regional survey of structural and stratigraphic framework of geologic provinces of United States; emphasis on geologic features and evolution of Appalachian and Western Interior regions.

**GEOL 474. Hydrogeology. (4)**

Three hours lecture; two hours laboratory.  
*Prerequisite: GEOL 105; and either GEOL 100 or GEOL 106; MATH 151; or permission of the instructor. Minimum of one semester of physics is strongly recommended.*

A qualitative and quantitative study of groundwater availability and movement, and the development of groundwater as a resource. Included will be pertinent geologic and engineering aspects of groundwater flow and the effect of man on the groundwater regime. Laboratory includes a field investigation.

**GEOL 481. Seminar in Modern Topics in Geology. (1-3)**

One to three hours lecture and/or field instruction.

*Prerequisite: GEOL 105; and either GEOL 100 or GEOL 106; and permission of instructor.*

Emphasis on geologic literature, classroom presentation, and group discussion of current geologic topics and/or on-site study of classic geological localities. May be taken maximum for no more than nine semester hours of credit. Topic may not be repeated by a student.

**GEOL 488. Final Honors Project. (2-3)**

*Prerequisites: Enrollment in Honors Academy and completion of all other Honors Academy requirements; a minimum 3.5 GPA in all courses and in geology.*

To earn a bachelor's degree with honors in geology, a student must conduct research and write a thesis based on the research. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

**GEOL 495. Internship in Geology. (1-6)**

*Prerequisites: 8 credit hours in Geology or other laboratory science, 2.5 GPA in Geology courses, and permission of the department chair.*

Involves the application of skills and concepts learned in the classroom and laboratory in a real world situation through full- or part-time placement in a professional setting with a company or organization doing work in some area of geology. Students will be supervised by both the internship site personnel and by a geology faculty member. This course is offered for pass/fail grade only.

**GEOL 498. Independent Study. (1-6)**

*Prerequisite: Any one of the following: GEOL 105; and either GEOL 100 or GEOL 106 or BIOL 102.*  
See "Independent Study" on p. 53.

## **GEOSPATIAL SCIENCE AND GEOGRAPHY**

Physical science courses, designated (PS), may meet the requirements for the required six to eight additional hours of science credits for the Bachelor of Science degree in some majors other than geography. Social science courses, designated (SS), meet requirements for the Social Science major. Courses in techniques used by geography are designated (T). Courses that qualify as a U.S. geography course for the Social Science major are designated with an asterisk.

**GEOG 101. Europe and the Americas (World Geography.) (SS) (3)**

Three hours lecture.

Recommended for students preparing to teach. Comprehensive review of physical and cultural features of Europe, the former Soviet Union, the Americas and Australia. This course has been approved for Core Curriculum credit in Social and Behavioral Sciences or Global Perspectives.

**GEOG 102. Africa and Asia (World Geography.) (SS) (3)**

Three hours lecture.

Recommended for students preparing to teach. Comprehensive review of physical features and cultural history of Africa, Southwest, Southeast, South and East Asia. This course has been approved for Core Curriculum credit in Social and Behavioral Sciences or Global Perspectives.

**GEOG 103. Introduction to Human Geography. (SS) (3)**

Three hours lecture.

Introduction to concepts and methods of examining human modification of earth's surface; emphasis on processes fostering differences, similarities and change in cultural patterns through space and time in a comparative framework. This course has been approved for Core Curriculum credit in Social and Behavioral Sciences.

**GEOS 125. Introduction to Geospatial**

**Data. (T) (3)**

Three hours lecture/laboratory.

*Prerequisites: Three hours of GEOG or GEOS or permission of instructor.*

Study of how physical and cultural information is presented on maps. Construction of maps, charts and graphs depicting geographic phenomena.

**GEOS 130. Physical Geography. (PS) (4)**

Three hours lecture.

Introduction to the physical geography of the Earth (atmospheric systems, biosphere, and landforms) and the interrelationships among various environmental elements.

**GEOG 140. Introduction to Environmental Studies. (SS) (3)**

Three hours lecture.

Review of contemporary local, national and international environmental problems and of the various analytic and policy approaches for resolving such problems. This course has been approved for Core Curriculum credit in Global Perspectives.

**GEOG 201. North America.\* (SS) (3)**

Three hours lecture.

Presentation of integrated spatial construction of the continent. Study of physical and human elements in the creation of the present diversity of life. This course has been approved for Core Curriculum credit in U.S. Perspectives.

**GEOG 202. The Commonwealth of Virginia\* (SS) (3)**

Three hours lecture.

Examination of physical and human features of the state; emphasis on past and present human interpretations of the potentials of the land. This course has been approved for Core Curriculum credit in U.S. Perspectives.

**GEOG 203. Appalachian Geography.\* (SS). (3)**

Three hours lecture.

A regional geography of Appalachia, this course examines the spatial interactions of people and the environment within Appalachia in historical and current contexts. Depending upon the topic, this course may be used to meet requirements

for the minor in Appalachian Studies. This course has been approved for Core Curriculum credit in U.S. Perspectives.

**GEOG 211. Perspectives in Geography. (3)**

Three hours lecture.

Seminar which examines the points of view of the discipline of geography and introduces the methods used by professional geographers in the collection, analysis, and presentation of spatial data. Assists students in designing courses of study that support their interests and career goals. Required of all incoming majors.

**GEOS 241. Environmental Regulation. (3)**

Three hours lecture.

*Prerequisites: GEOG 140 or permission of instructor.*

Review of pertinent U.S. and international environmental laws and regulations and of principal analytic tools that inform the creation and enforcement of such laws and regulations.

**GEOS 250/ITEC 250. Introduction to GIS. (T) (4)**

Four hours lecture/laboratory.

Course is designed to introduce students in geography as well as students from other disciplines working with the general concepts of Geographic Information Systems (GIS). Course will teach the theory and involve the practical use of GIS and geospatial data.

**GEOS 270. Fundamentals of Cartography. (T) (4)**

Four hours lecture and laboratory.

*Prerequisites: GEOS 125 and GEOS 250.*

Cartographic theory with a focus on map design will be discussed in lecture and in practice with a lab. Topics will include but not be limited to studying map layout, balance, typography, color use, use of map projections for presenting spatial information, use of map symbols, as well as learning to design different categories of maps including dot maps, proportional symbols, and choropleth maps. Students who have received credit for GEOG 214 may not also receive credit for GEOS 270.

- GEOG 280. Regional Geography. (SS) (3)**  
In-depth examination of a selected non-U.S. world region. Includes physical, socioeconomic, historical and contemporary spatial patterns. Region covered will vary from semester to semester. May be taken for credit more than once when regions differ. This course has been approved for Core Curriculum credit in Global Perspectives.
- GEOG 302. Economic Geography. (SS) (3)**  
Three hours lecture.  
Introduction to principles governing distribution of economic activity. Emphasis on development of theoretical models and their real world application. Includes transportation and land use models, principles of industrial location, methods of measuring location and dispersion of economic activity and urban location.
- GEOG 305. Population Geography. (SS) (3)**  
Three hours lecture.  
*Prerequisite: GEOG 101 or GEOG 102 or permission of instructor.*  
Study of basic demographic processes and exploration of their spatial/geographic dimensions.
- GEOS 315. Intermediate GIS Concepts. (T) (4)**  
Four hours lecture/laboratory.  
*Prerequisite: GEOS 250*  
Intermediate GIS concepts will be studied and experienced, use of various extensions to basic GIS routines, data structures in GIS, use and customization of several commercial GIS and data packages, data sources for GIS, and data and software compatibility issues in GIS.
- GEOG 322. Cultural Geography. (SS) (3)**  
Three hours lecture.  
Study of evolution of various cultures. Compares differences and similarities of contemporary cultures and human landscapes.
- GEOS 334. Climatology. (PS) (3)**  
Three hours lecture.  
*Prerequisite: GEOS 130 or any physical science course or permission of the instructor.*  
Deals with meteorological phenomena and their
- role in the formation of weather. The effects of weather on the environment are studied in the larger context of climate.
- GEOS 335. Biogeography. (PS) (3)**  
Three hours lecture.  
*Prerequisite: GEOS 130, or BIOL 105, 215, or 216, or permission of the instructor.*  
Study of the processes influencing the distribution patterns of terrestrial organisms. Introduction to applied biogeography.
- GEOS 336. Human Ecology. (PS) (3)**  
Three hours lecture.  
*Prerequisite: BIOL 105 or 121; or GEOG 335 or permission of instructor.*  
Investigation of ways in which humans interact with Earth's other species. Focus is on the modification of natural ecosystems and organisms from prehistory to the 21st century, including the domestication of plants and animals, dispersal of wild and domestic species, and the development of human-dominated agricultural and urban ecosystems. Some field work is expected.
- GEOS 340. International Environmental Problems. (SS) (3)**  
Three hours lecture.  
*Prerequisite: GEOG 140.*  
Overview of international environmental problems, climate change, energy use, deforestation, loss of biodiversity, poverty and trade, population growth, industrial policy. Discussion of appropriate U.S. and international policy response.
- GEOS 350/GEOL 360. Geomorphology. (PS) (4)**  
Three hours lecture, three hours laboratory.  
*Prerequisite: GEOL 105.*  
Introduction to surficial processes and landforms. Fluvial, eolian, glacial, karst and coastal zone processes analyzed. Map and air photo interpretation included.
- GEOS 361. Public Lands. (3)**  
Three hours lecture.  
*Prerequisite: Junior or Senior standing or permission of instructor.*  
Presents an overview of the nations' major

public lands systems. It covers history of the federal lands, legal and institutional framework, and planning and management concepts and processes such as environmental impact analysis. Current policy issues will be examined from several perspectives.

**GEOS 362. Water Resources. (4)**

Four hours lecture, laboratory, and field work.  
*Prerequisites: GEOS 130, GEOL 100, or GEOL 105, and GEOS 250, or permission of the instructor.*

An introduction to the science and policy aspects of water resources with emphasis on U.S. context.

**GEOS 380. Spatial Analysis Techniques. (4)**

Four hours lecture/laboratory.  
*Prerequisite: GEOS 250 and STAT 200.*

The course, which will consist of both lecture and GIS lab applications, is devoted to description and application of methods for analyzing spatial distributions and to evaluation and assessment of geographic research problems in the context of GIS technology.

**GEOS 410. Advanced GIS. (T) (4)**

Four hours lecture and laboratory.  
*Prerequisite: GEOS 125, GEOS 250, GEOS 315.*  
Theory and practice of a geographic information system. Spatial data capture, manipulation of data sets, GIS Modeling, geodatabase considerations, manipulation of spatial data, and hardcopy map generation with a full-feature geographic information system.

**GEOS 412. Advanced Geoprocessing. (T) (3)**

Three hours lecture and laboratory.  
*Prerequisite: GEOG 410.*  
Theory and practice of advanced cartographic techniques. Research and cartographic design of complex cartographic projects and graphic design of cartograms will be practiced.”

**GEOS 425. Remote Sensing. (T) (4)**

Three hours lecture; three hours laboratory.  
*Prerequisite: MATH 137, GEOS 130 (or GEOL 105), and GEOS 125.*

Provides students the opportunity to (1) learn theory and practice of contemporary remote

sensing products (digital aerial photographs, digital orthophotos, airborne and satellite sensor platforms and their images), (2) learn and experiment with the technologies utilized in the analysis, image processing, and interpretation of these products, and (3) learn the use of the products in analog and digital format for other geographic technologies.

**GEOS 480. Seminar. (1-4)**

Three hours seminar.  
*Prerequisite: Junior or senior standing.*  
Intensive study of a special field of geography. Topics determined by instructors and students’ interests. May be taken maximum of three times for no more than nine semester hours of credit. Depending upon the topic, this course may be used to meet requirements for the minor in Appalachian Studies.

**GEOS 488. Final Honors Project. (2-3)**

*Prerequisite: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 GPA in all courses and in geography.*  
Project and topic to be determined by the student, the faculty member with whom the student works, and the department. In order to receive honors credit, a student must earn a grade of “A” or “B” for the final project. Course may not be repeated.

**GEOS 490. Field Research Methods. (T) (3)**

Three hours lecture and field work.  
*Prerequisite: Junior or Senior standing.*  
Basic elements of geographic field research performed in Radford area. Course focuses on tools of field analysis. Students prepare single or group projects as indication of acquisition of logic of spatial analysis. This course may be used to meet requirements for the minor in Appalachian Studies.

**GEOS 492. Land Use. (3)**

Three hours lecture.  
*Prerequisite: Junior or Senior standing.*  
Study of concepts and perception of land use. Course stresses compatibility of geologic systems and land use.

**GEOS 493. Planning Techniques. (3)**

Three hours lecture.

*Prerequisite: Junior or Senior standing.*

Study of issues involved in comprehensive planning of communities and lands beyond urban realms. Emphasis on discussion of major planning concerns; particular attention paid to nature of rural problems and directions in future.

**GEOS 495. Directed Field Research. (T) (1-6)**

Field course, variable number of weeks.

Field course to regions in the United States and elsewhere in the world. (May be taken twice for credit but only six units may be used to meet requirements for the major.)

**GEOS 496. Senior Capstone Project. (3)**

Three hours research.

*Prerequisites: Last semester senior standing; major in geospatial science.*

An individual or group project that applies the knowledge and skills obtained in any of the concentrations in the geography major. Required of all GEOS majors.

**GEOS 498. Independent Study. (1-6)**

See "Independent Study" on p. 53.

**GEOS 499. Internship. (2-9)**

Application of skills and concepts learned in classroom to a real life problem. As a junior or senior, participating student drafts and submits a work proposal to sponsoring agency and supervising instructor. Agency may pay student for work. Grade of "P" or "F" given upon successful completion of project.

## GERMAN

**GRMN 100. Elementary German. (4)**

Four hours lecture and language practice. Balanced emphasis on listening, speaking, reading and writing. This course has been approved for Core Curriculum credit in Foreign Languages.

**GRMN 200. Intermediate German I. (4)**

Four hours lecture and language practice.

*Prerequisite: GRMN 100 or two years of high school German.*

Balanced emphasis on listening, speaking reading

and writing. This course has been approved for Core Curriculum credit in Foreign Languages.

**GRMN 210. Intermediate German II. (4)**

Four hours lecture and language practice.

*Prerequisite: GRMN 200 or two years of high school German.*

Review of fundamentals using grammatical, literary and cultural materials. This course has been approved for Core Curriculum credit in Foreign Languages.

**GRMN 300. Readings in German. (4)**

Four hours lecture and language practice.

*Prerequisite: GRMN 210 or two years of high school German.*

Review of fundamentals using grammatical, literary and cultural materials. May be taken twice for credit with different texts and films/videos. This course has been approved for Core Curriculum credit in Foreign Languages.

**GRMN 301, 302. German Grammar and Composition. (4,4)**

Four hours lecture.

*Prerequisite: GRMN 210.*

Intensive oral and written practice of the complete grammar as used by native speakers.

**GRMN 303. German Conversation. (4)**

Four hours lecture.

*Prerequisite: GRMN 210 or three years of high school German.*

Intensive situational practice of conversational skills. May be taken twice for credit with different topics.

**GRMN 304. German Culture. (4)**

Four hours lecture.

*Prerequisite: GRMN 210.*

Contrastive presentation of modern German culture and its historical background.

**GRMN 450. Survey of German Literature. (4)**

Four hours lecture.

*Prerequisite: GRMN 300 or four years of high school German.*

A survey of literature in the German language through analysis of selected representative works in their historical, cultural and literary background.

**GRMN 460. Special Topics. (3-4)**

Three or four hours lecture.

*Prerequisite: GRMN 300.*

Advanced study of topics in language, literature or culture. All work conducted in German. May be taken twice for credit.

## HISTORY

Courses marked (A) are designated for credit in Group A (United States), those with (B) for credit in Group B (Europe), and those with (C) for credit in Group C (Africa, Asia, Latin America, Middle East). Courses marked with an (\*) may be taken for either Group A, B, or C based on content as determined by the student's advisor. Courses marked with more than one designator may be counted in either group as marked. Students may not count any one course for more than one group.

**HIST 101. World History to 1500. (3)**

Three hours lecture.

A general survey of world history; study of the world's major cultural areas, their unique achievements and their interaction with and relation to other societies. Covers the period up through the fifteenth century. This course may be used to meet requirements for the minor in International Studies. This course has been approved for Core Curriculum credit in Humanities or Global Perspectives.

**HIST 102. World History since 1500. (3)**

Three hours lecture.

A general survey of world history; a study of the world's major cultural areas, their unique achievements and their interaction with and relation to other societies. Covers the period encompassing the sixteenth through twentieth centuries. This course may be used to meet requirements for the minor in International Studies. This course has been approved for Core Curriculum credit in Humanities or Global Perspectives.

**HIST 111. U.S. History to 1865. (3)**

Three hours lecture.

Survey of national history from the colonial period through the American Revolution and early national period through the Civil War. Emphasis on economic, political and social developments as well as the growth of the representative and democratic process. This course has been approved for Core Curriculum credit in Social and Behavioral Sciences or U.S. Perspectives.

**HIST 112. U.S. History since 1865. (3)**

Three hours lecture.

General survey of national history since the end of the Civil War. Explores economic, political and social developments in the United States and growing American involvement in world affairs. This course has been approved for Core Curriculum credit in Social and Behavioral Sciences or U.S. Perspectives.

**HIST 295. The Historians Craft. (3)**

Three hours lecture.

*Prerequisite: Six hours of HIST at the 100-level. History Major.*

This seminar will introduce students to the numerous facets of historical inquiry. Basic components of the course center on the nature and philosophy of history; historical interpretation; research, analysis, and writing; and the practical application of history. Its focus is on preparing students for upper-division courses in history while integrating work in their major into their overall university experience. As a gateway class between the survey-level and upper-division History courses, HIST 295 is intended to be taken by History majors during their second semester sophomore to first semester junior year (before taking more than 6 credits of 300-level HIST courses).

**HIST 300. The 20th Century World. (A, B, C). (3)**

Three hours lecture/discussion.

*Prerequisite: Three hours of HIST at 100-level.*

An overview of the world in the 20th century with emphasis on the overriding themes from the historian's perspective: nationalism, globalization, economic development, environmentalism. Course establishes a basis for the understanding of current events in historical perspective.

- HIST 302. War in the Modern Age (A, B). (3)**  
 Three hours lecture.  
*Prerequisite: Three hours of HIST at 100-level.*  
 General history of Western warfare, surveying the evolution of war, technology, and societies from the Middle Ages in Europe to the conflicts of the present-day.
- HIST 303. Studies in Military History (\*). (3)**  
 Three hours lecture.  
*Prerequisite: Three hours of HIST at 100-level.*  
 In-depth study of a particular aspect of military history. Study may include such topics as leadership, World War II and causes of war.
- HIST 306. History of Women (\*). (3)**  
 Three hours lecture.  
*Prerequisite: Three hours of HIST at 100-level.*  
 Study of the roles and changing status of men and women. The region or time period of the course can vary from semester to semester. May be taken for credit more than once when topics differ. This course may be used to meet requirements for the minor in Women's Studies.
- HIST 308. Ancient Greece and Rome (B). (3)**  
 Three hours lecture.  
*Prerequisite: Three hours of HIST at 100-level.*  
 A study of the political, socio-economic, and cultural development of the ancient Mediterranean world and the development of Greco-Roman civilization from its archaic roots to about AD 500.
- HIST 309. Medieval Civilization (B). (3)**  
 Three hours lecture.  
*Prerequisite: Three hours of HIST at 100-level.*  
 A study of the political, socio-economic, and cultural development of Europe from 300 to 1500 with an emphasis on the achievements of the eleventh and thirteenth centuries.
- HIST 311. Ancient Near East (B, C). (3)**  
 Three hours lecture.  
*Prerequisite: Three hours of HIST at 100-level.*  
 A study of the political, socio-economic, and cultural development of ancient civilizations stretching from Egypt to Persia within an emphasis on the development of enduring religious, cultural, and political traditions.
- HIST 313. History of China (C). (3)**  
 Three hours lecture.  
*Prerequisite: Three hours of HIST at 100-level.*  
 Survey of Chinese culture and history. Covers diplomatic, economic, intellectual, political and social aspects of China.
- HIST 314. Imperial India: India from Mughal Times to the Present (C). (3)**  
 Three hours lecture.  
*Prerequisite: Three hours of HIST at 100-level.*  
 A general survey of South Asian history from the building of the Mughal empire to the present. Topics include the nature of Mughal and British rule in India, the many peoples who have coexisted in India, and the blending of Muslim, Hindu, and British traditions. Also emphasizes developments in South Asia since the end of British rule in 1947.
- HIST 316. Colonial Latin America (C). (3)**  
 Three hours lecture.  
*Prerequisite: Three hours of HIST at 100-level.*  
 A topical survey beginning with the conquests of Mexico and Peru by Spain and (to a lesser extent) Brazil by Portugal. Focus is on the impact on native Americans of Spanish colonialism and on the evolution of Hispanic-American institutions, family and kinship patterns and economic behavior.
- HIST 317. National Latin America (C). (3)**  
 Three hours lecture.  
*Prerequisite: Three hours of HIST at 100-level.*  
 A general survey of Latin American history from the creation of independent nations until the present. Emphasis on the economic modernization process and its consequences.
- HIST 319. The Middle East (C). (3)**  
 Three hours lecture.  
*Prerequisite: Three hours of HIST at 100-level.*  
 A survey of the Middle East from the birth of Islam to the present time, focusing on the 19th and 20th centuries. Emphasizes the great diversity in peoples, cultures and historical development, despite the overriding influence of Islam. Issues include nationalism and colonialism, the emergence of modern Israel, modernization and development, oil diplomacy, and intraregional rivalries.

- HIST 320. The Vietnam War (A, C). (3)**  
 Three hours lecture.  
*Prerequisite: Three hours of HIST at 100-level.*  
 History of the war covering the general background, French and American involvement and the present situation in southeast Asia. Focuses on military, diplomatic and domestic aspects of American involvement.
- HIST 325. African Civilizations (C). (3)**  
 Three hours lecture/discussion.  
*Prerequisite: Three hours of HIST at 100-level.*  
 Examines Africa's social, cultural and economic institutions as they have evolved and changed through the ages. Topics include human evolution in Africa, state formation, the slave trade, early European contacts and colonialism.
- HIST 326. 20th Century Africa (C). (3)**  
 Three hours lecture/discussion.  
*Prerequisite: Three hours of HIST at 100-level.*  
 Analysis of the events and trends that have shaped Africa and its peoples in the 20th century. Topics include the rise of nationalism, the impact of the two World Wars, struggles for independence, the impact of the Cold War, efforts at economic, social and political development in the post-Independence era, Africa in the Age of Globalization.
- HIST 330. African American History to 1865 (A). (3)**  
 Three hours lecture/discussion.  
*Prerequisite: Three hours of HIST at 100-level.*  
 Examines the social, political, economic and cultural history of African Americans in the United States from the early 1600s to Emancipation. Topics include the Atlantic Slave Trade, the Origins of Slavery in British North America, Colonial Slavery and the Revolutionary Era, the development of a free black community, Antebellum Slavery, the Antebellum Free African American Population, Civil War, and Emancipation.
- HIST 331. African American History from 1865 (A). (3)**  
 Three hours lecture/discussion.  
*Prerequisite: Three hours of HIST at 100-level.*  
 Examines the social, political, economic and cultural history of African Americans in the United States from Emancipation through Civil Rights Movement. Topics include Reconstruction, Segregation, both World Wars, the Great Migration, the Great Depression and New Deal, the Civil Rights Movement in both the North and the South, and Black Nationalism. Focuses on African American culture, racial identity, social consciousness, political thought, oppression and resistance.
- HIST 337. English History to 1625 (B). (3)**  
 Three hours lecture.  
*Prerequisite: Three hours of HIST at 100-level.*  
 A general survey of English history to 1625. Topics include Britain before and during Roman times, the unification and Christianization of England, the Anglo-Saxon, Viking, and Norman invasions, relations between church and state including the Reformation, medieval warfare, and the Tudor regime.
- HIST 338. Modern British History (B). (3)**  
 Three hours lecture.  
*Prerequisite: Three hours of HIST at 100-level.*  
 A general survey of British history since 1625. Topics include the English civil wars and Glorious Revolution, British culture, foreign affairs and the building of the British Empire, the development of democratic and liberal traditions, industrialization, and the world wars.
- HIST 339. Scotland and Ireland in the Modern Age (B). (3)**  
 Three hours lecture.  
*Prerequisite: Three hours of HIST at 100-level.*  
 A general survey of Scottish and Irish history in modern times. Topics will range from William Wallace through the Reformation to Bonnie Prince Charlie and from Drougheda through the Great Famine to the troubles in Northern Ireland. Themes will include state building, identity formation, and relations between Highlanders and Lowlanders, Celts and Saxons, and Protestants and Catholics.

**HIST 341. Early Modern Europe (B) (3)**

Three hours lecture.

*Prerequisite: Three hours of HIST at 100-level.*

A study of European history from 1300 to 1789 that explores the crisis of the late Middle Ages, the Renaissance, the Reformation, revolt and revolution, constitutional development, science and the Enlightenment.

**HIST 342. Revolutionary Europe, 1789 to 1890 (B). (3)**

Three hours lecture and/or discussion.

*Prerequisite: Three hours of HIST at 100-level.*

Study of modern European history from 1789 through 1890. Topics include the French Revolution, Napoleon, Revolutions of 1830 and 1848, the first Industrial Revolution, Urbanization, Liberalism, Socialism, Nationalism, and the second Industrial Revolution.

**HIST 343. Europe Since 1890. (3)**

Three hours lecture and/or discussion.

*Prerequisite: Three hours of HIST at 100-level.*

Study of political events which brought on two World wars, their economic and social impact on Europe; shift of world power away from Europe; adjustments in consolidation of European community since 1890.

**HIST 345. Czarist Russia (B, C). (3)**

Three hours lecture.

*Prerequisite: Three hours of HIST at 100 level.*

Russian history from formation of the Kievan State through fall of the Romanovs.

**HIST 346. Soviet Russia (B, C). (3)**

Three hours lecture.

*Prerequisite: Three hours of HIST at 100 level.*

Russian history during the Soviet era. Domestic and diplomatic policies are examined as well as Russian social conditions in the 20th Century.

**HIST 347. Stalin and Stalinism (B, C). (3)**

Three hours lecture.

*Prerequisite: Three hours of HIST at 100 level.*

Critically examines the era in Soviet history known as Stalinism. It explores the biography and the personality of Joseph Stalin. Topics include: Stalin's political machinations to grab power, the establishment of the Gulag prison camp system, the

show trials and great terror of the 1930's, Stalin and World War II, and the beginnings of the Cold War. Students learn the core concepts of the Stalinist ideology and how it varied from earlier and later Soviet theories and practices. They contemplate levels of collaboration with and resistance to the system. Students also examine the legacy of Stalinism at home and abroad.

**HIST 349. Modern Germany: From Bismarck through Hitler. (B) (3)**

Three hours lecture.

*Prerequisite: Three hours of HIST at 100 level.*

Study of German history from 1870 to 1945.

Topics include Bismarck and national unification, World Wars I and II, Hitler and National Socialism.

**HIST 350. Modern European Intellectual History (B). (3)**

Three hours lecture.

*Prerequisite: Three hours of HIST at 100-level.*

Explores the relationship between thought and its social context in Europe since 1750. The course draws on philosophical, scientific, and cultural texts, and focuses on the political implications of philosophical reflections, scientific investigation, and cultural criticism.

**HIST 352. Virginia History (A). (3)**

Three hours lecture.

*Prerequisite: Three hours of HIST at 100-level.*

Comprehensive survey of history in Virginia.

**HIST 354, 355. American Social History (A). (3,3)**

Three hours lecture.

*Prerequisite: Three hours of HIST at 100-level.*

An intensive study of American life, customs, character and social problems. HIST 354 covers the colonial era through the mid-19th century and HIST 355 from mid-19th century to the present.

**HIST 356. History of American Religious Thought (A). (3)**

Three hours lecture.

*Prerequisite: Three hours of HIST at 100 level.*

A survey of important developments in American religious thought including Puritanism, Unitarianism, Transcendentalism, New Thought

and Positive Thinking, the Social Gospel, Fundamentalism, and Neo-Orthodoxy.

**HIST 360. Colonial America (A). (3)**

Three hours lecture.

*Prerequisite: Three hours of HIST at 100 level.*

Study of Native American societies before contact, as well as an analysis of the establishment and development of English colonies in the New Work before 1750.

**HIST 361. Revolutionary America (A). (3)**

Three hours lecture.

*Prerequisite: Three hours of HIST at 100-level.*

Study and analysis of the causes of the Revolution, the War for Independence, the Confederation period and the impact of the war.

**HIST 364. American Slavery (A). (3)**

Three hours lecture/discussion.

*Prerequisite: Three hours of HIST at 100-level.*

Provides an in-depth study and analysis of the institution of slavery as it developed in the United States. Particular focus will be placed on the institution from the perspective of the slaves themselves. Topics include the Atlantic Slave Trade, Origins of Slavery, Colonial Slave Systems, Proslavery Defense, Abolitionism, Slave Culture, Resistance, and Emancipation.

**HIST 365. America's Civil War (A). (3)**

Three hours lecture/discussion.

*Prerequisite: Three hours of HIST at 100-level.*

A survey of the social, political, military, diplomatic, and economic events of the American Civil War. It explores the causes, character, conduct, and consequences of the American Civil War. Broad themes to be investigated are: the crisis of union and disunion in an expanding republic; slavery, race, and emancipation; and the experiences of modern, total war for individuals and society.

**HIST 368. The Populist and Progressive Era (A). (3)**

Three hours lecture.

*Prerequisite: Three hours of HIST at 100-level.*

Examines the political, economic, and social history from 1877-1917. Special emphasis on the role of the Populists within the social and cultural

context of American history and the contemporary treatment of origins and aims of the Progressive movements.

**HIST 372. Southern History and Culture (A). (3)**

Three hours lecture.

*Prerequisite: Three hours of HIST at 100-level.*

Explores the major historical and cultural characteristics that make the American South a distinct region. Topics include the agricultural tradition, politics, literature, family and gender, the arts, music, religion, race relations, and the role of social class in historical and contemporary contexts. Upon completion, students should be able to identify the characteristics that distinguish Southern history and culture. The course will proceed from a topical perspective. Each main topic will be examined within an historical and chronological framework.

**HIST 373. Appalachian History (A). (3)**

Three hours lecture.

*Prerequisite: Three hours of HIST at 100-level.*

Inquiry into uniqueness of the Appalachian region including the people and their history, livelihood, religion, speech, music, social mores, folklore, and politics. Emphasis on 20th century.

**HIST 375. American Immigration (A). (3)**

Three hours lecture.

*Prerequisite: Three hours of HIST at the 100-level.*

A study of immigration in American life. It traces the history of immigration to the United States from the colonial era to the present with a special emphasis on issues of assimilation, pluralism, and multiculturalism.

**HIST 381. Recent America (A). (3)**

Three hours lecture.

*Prerequisite: Three hours of HIST at 100-level.*

An in-depth study of major political, diplomatic, economic, social, and cultural developments in U.S. history during recent decades.

**HIST 385. Public History (\*). (3)**

Three hours lecture.

*Prerequisite: Three hours of HIST at 100 level.*

Introduces students to the field of applied or public history and to the role that historians play

in such diverse activities as historic preservation, historic site interpretation and management, historical societies, governmental historical organizations, and museums.

**HIST 392. Special Topics in History (\*). (3)**

One to three hours lecture and/or discussion.

*Prerequisites: At least three hours of history at the 100 level and advance permission of the instructor.* Detailed study of topics or period of history of current interest for advanced students.

**HIST 466. History Travel Study (\*). (3-6)**

*Prerequisite: Three hours of HIST at 100-level.*

Involves domestic and/or international travel. Students will participate in the investigation of historical topics in relevant locations. One of the goals of the course is to allow students to better understand and relate to historical issues specific to countries and regions by exploring them 'on location.' This course may be taken again for credit with different topics or areas of study. Designation of the course as counting for area 'A,' 'B,' or 'C' of the History major will depend on the course content, and must be established before the student enrolls. This course can count for a maximum of 3 credit hours in any one of those areas of the History major. A maximum of 6 credit hours of travel study may be applied towards the History major. A maximum of 3 credit hours of travel study may be applied towards the History minor or the Social Science major.

**HIST 488. Honors Thesis. (3)**

*Prerequisites: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 GPA in all courses and in history, senior standing.*

Conducting research and writing a thesis for a bachelor's degree with honors in history. In order to receive honors credit, the student must receive a grade of "A" or "B" for the thesis. Course may not be repeated.

**HIST 490. Internship. (3-15)**

*Prerequisites: 12 hours history; junior standing, minimum 2.5 GPA, departmental approval.*

A one semester internship with historical agency, society, museum or other relevant institution.

Student receives both academic and agency supervision. Course does not count toward fulfillment of the requirements for the history major. Course may be taken more than once for up to a total of 15 credit hours. Pass/Fail grading.

**HIST 495. Senior Seminar. (3)**

Three hours seminar.

*Prerequisite: History 295 (completed with a "C" or better); History major; senior standing; completed 12 credit hours of 300-level HIST courses; or permission from instructor.*

A seminar focusing on a topic, or related group of topics in European, United States, and/or non-Western history. This seminar will serve as a senior capstone experience for History majors bringing together critical thinking, research, writing, and communication skills. Specific topics of seminars change each semester in accordance with the interests of instructors and needs of the department. This course will encourage engagement in primary and secondary sources, historical analysis and argument, and an understanding of historical interpretation. Completion of a senior writing project is required. HIST 495 is required for all History majors. It may not be used to fulfill coursework in the three fields of required history courses. May be taken for credit more than once when topics differ.

**HIST 498. Independent Study (\*). (1-6)**

*Prerequisite: At least three hours of history at the 100-level and advance permission of instructor.*

Student works closely with one member of the department who defines the requirements for the course which vary among instructors. A topic of study is defined and the student works, largely independently, through the semester to research and report on the topic. Each instructor will define by nature of the content of the study whether it meets History major requirements in Group A, B, or C.

See "Independent Study" on p. 53.

## HEALTH EDUCATION

### **HLTH 111. Personal Health.** (3)

Three hours lecture.

Assists students with life adjustment problems, supplies scientific information stimulates effective behavior and encourages better living. (Students who have earned credit for NURS 111 may not earn credit for HLTH 111). This course has been approved for Core Curriculum credit in Health and Wellness.

### **HLTH 200. Wellness Lifestyle.** (3)

Two hours lecture, two hours physical activity per week with laboratory assessment. Provides students with the knowledge and skills to keep themselves healthy and fit for life. The lecture provides information on health knowledge. The activity classes introduce a variety of fitness skills and techniques in order to help the individual pursue lifetime fitness. The laboratory assessments provide personal health/wellness data. All three components are integrated to promote a commitment to a wellness lifestyle. This course has been approved for Core Curriculum credit in Health and Wellness.

### **HLTH 245. Foundations of Health Education and Health Promotion.** (3)

Three hours lecture.

Serves as an introduction to the profession of health education and health promotion. It will examine underlying factors related to health and introduces the student to the process of managing current health problems in the United States. This course does not meet general education requirements.

### **HLTH 250. Consumer Health.** (3)

Three hours lecture.

*Prerequisite: HLTH 200.*

Will provide students with the knowledge and skills necessary to distinguish legitimate health information and misinformation. In addition, students will learn to make informed decisions pertaining to fitness and nutrition, major health problems, and other health-related diseases and conditions.

### **HLTH 300. Community Health and Epidemiology.** (3)

Three hours lecture.

*Prerequisite: HLTH 245, STAT 200, minimum 2.5 cumulative GPA or permission of instructor.* Introduction to community and public health issues. Basic principles of epidemiology will be introduced, and students will use these principles to understand how morbidity and mortality statistics are calculated and interpreted.

### **HLTH 320. Health and Safety Foundations.** (3)

Three hours lecture; two hours laboratory.

*Prerequisite: HLTH 200 and minimum 2.5 cumulative GPA.*

Provides a study of essential factors relating to safe and unsafe behaviors. Psychological and philosophical factors are explored relative to how they can be modified to prevent accidents. The course imparts essential knowledge and develops appropriate attitudes, habits and skills relative to personal safety, first aid and accident prevention. Students may obtain ARC certification and first aid upon successful completion of the course.

### **HLTH 321. First Aid and Safety.** (3)

Three hours lecture.

Studies of attitudes, habits and skills relative to safety, first aid and accident prevention. Students may obtain ARC certification in CPR and first aid upon successful completion of the course.

### **HLTH 325. Diversity of Health in the United States.** (3)

Three hours lecture.

*Prerequisite: HLTH 111, HLTH 200, FDSN 214, or NURS 111; minimum 2.5 cumulative GPA.*

Designed to inform students of diversity issues, health-related disparities, and controversies related to the health of racial, ethnic, and other groups of the population in the United States. This course may be used to meet requirements for the minor in Women's Studies.

**HLTH 362. Community Health, Diseases, and Disorders.** (3)  
Three hours lecture.  
*Prerequisite: HLTH 200 and minimum 2.5 cumulative GPA.*  
Provides critical health information future teachers can be expected to share with K-12 school children.

**HLTH 382. Methods of Teaching K-12 Health Education.** (4)  
Three hours lecture; two hours field experience.  
*Prerequisite: ESHE 210 and minimum 2.5 cumulative GPA.*  
Teacher candidates will gain an understanding of developmentally appropriate health education teaching practices for teaching elementary through secondary school-aged children. The course builds upon previous curriculum courses taken by teacher candidates and addresses fundamental instructional skills necessary for successful teaching in elementary, middle, and high school health education.

**HLTH 410. Drivers Education Theory.** (3)  
Three hours lecture.  
*Prerequisite: Junior status and minimum 2.5 cumulative GPA.*  
Imparts knowledge, attitudes, skills and methodology needed to teach drivers education. This is the first of two courses required for drivers' education certification.

**HLTH 412. Driver Education-Driver Task Analysis.** (3)  
One hour lecture; four hours laboratory.  
*Pre- or Corequisite: HLTH 410 and current Virginia driver's license and minimum 2.5 cumulative GPA.*  
Critical analysis of highway transportation system, the driving task, traffic problems, factors contributing to performance of highway user and knowledge, attitudes and skills necessary for competence of traffic citizens. Develops traffic citizen competencies and introduces methods and materials to develop those competencies in others.

**HLTH 450. Current Health Problems – Topical.** (1-3)  
One to three hours.  
*Prerequisite: Minimum 2.5 cumulative GPA.*  
Students will study the implications of selected current health problems as applied to health education/health promotion. Topics may include but are not limited to Health Counseling, Consumer Health, Worksite Health, Addiction and Public Health. Depending upon the topic, this course may be used to meet requirements for the minor in Women's Studies.

**HLTH 451. Drug Use and Drug Abuse Education.** (3)  
Three hours lecture.  
*Prerequisite: Minimum 2.5 cumulative GPA.*  
A study of the effects of drug use and abuse upon society and the public schools.

**HLTH 453. Human Sexuality.** (3)  
Three hours lecture.  
*Prerequisite: Junior standing and minimum 2.5 cumulative GPA.*  
A study of information, education and communication about human sexuality as it relates to people in our society. This course may be used to meet requirements for the minor in Women's Studies.

**HLTH 460. International Health.** (3)  
Three hours lecture.  
*Prerequisite: Minimum 2.5 cumulative GPA.*  
Analysis of public and international health issues as they relate to the individual, community and society.

**HLTH 465. Exercise, Performance and Nutrition.** (3)  
Three hours lecture.  
*Prerequisites: HLTH 200 and BIOL 322 or BIOL 310 and BIOL 311; minimum 2.5 cumulative GPA.*  
Designed to examine the relationships of exercise, physical activity and performance, as they relate to nutrition. It includes basic information on human energy systems, weight control, sports nutrition and proper diet.

**HLTH 475. Health Behavior Change. (3)**

Three hours lecture.

*Prerequisite: HLTH 300 and minimum 2.5 cumulative GPA.*

Provides an in-depth study of a variety of health behavior change theories that are used in health interventions. Students shall use the constructs of selected theories to design lesson plans for a behavioral intervention.

**HLTH 480. Interviewing and Helping Skills for Health Educators. (3)**

Three hours lecture.

*Prerequisites: HLTH 475 and minimum 2.5 cumulative GPA or permission of instructor.*

Will provide students with the knowledge and skills necessary to promote healthy lifestyle choices with prospective clients in a one-on-one or group setting.

**HLTH 485. Health Program Planning and Evaluation. (3)**

Three hours lecture.

*Prerequisites: ESHE 360, HLTH 475, and senior standing; minimum 2.5 cumulative GPA.*

The capstone course for the Health Education and Health Promotion Curriculum. This course requires students to design and evaluate a health promotion program.

**HLTH 488. Final Honors Project. (2-3)**

*Prerequisites: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 GPA in all courses in the Department of Exercise, Sport, and Health Education.*

Project and the topic to be explored will be determined by the student and the faculty member with whom the student works. Honors project may be written or a written and performance-based project. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

**HUMAN DEVELOPMENT**

**HUMD 201. Marriage and Alternative Lifestyles. (3)**

Three hours lecture.

Examines traditional and modern marriage, alternatives to marriage, the choice-making process and factors influencing choices.

**HUMD 300. Human Growth and Development: Birth through Adolescence. (3)**

Three hours lecture.

*Prerequisite: 2.5 GPA.*

Covers critical components of human development from the prenatal stage through adolescence, including theories, ethics, research and applications. Personal, social, professional, and cultural perspectives related to working with children and adolescents are explored. This course does not meet requirements for psychology majors.

**HUMD 301. Human Sexual Development. (3)**

Three hours lecture.

Studies various aspects of human sexuality from a development perspective.

**HUMD 401. The Family. (3)**

Three hours lecture.

Examines diversity, change and issues within the family unit.

**INTERNATIONAL STUDIES**

Courses offered through the Summer Study Abroad Program are described beginning on p. 43.

**INST 101. Introduction to International Studies. (3)**

Three hours lecture.

An introductory survey of international issues, emphasizing the cross-disciplinary nature of International Studies. This course has been approved for Core Curriculum credit in Global Perspectives.

**INST 488. International Studies: Senior Project. (3)**

Three hours research.

*Prerequisite: Senior standing and approval of the project by the Committee on International Studies.*

Students research and present a senior project appropriate to their particular area of concentration, supervised by a faculty advisor. Students must earn a grade of “A” or “B” to graduate with the minor.

**INST 489. Seminar in International Studies. (3)**

Three hours seminar.

*Prerequisite: Junior or senior standing and, for non-minors, approval by the course coordinator.*

Students concentrate on an area of International Studies, which varies each semester depending upon the individual instructors. Course is cross-disciplinary and team -taught.

**INST 489A. Study Abroad Practicum with AustraLearn. (12-18)**

*Prerequisites: Consult Director of International Education.*

Open to all majors. This is an affiliate program that allows a student to study a variety of subjects with over a dozen universities in Australia and New Zealand. Affiliate programs allow students to maintain RU student status while abroad thus allowing them continued access to financial aid and future registration at RU. Students must complete an RU Study Abroad Registration and course Approval Form outlining courses to be taken and approved before leaving to study abroad. Grade values are pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Office of the Registrar. Scholarships are possible.

**INST 489C. Study Abroad Practicum with Middlesex University in London, England. (12-18)**

*Prerequisites: Consult Program Coordinator.*

*Available Fall and Spring. Open to all majors.*

This is an exchange program where participants can study a variety of subjects in England, including Art, Business, Cultural Studies, Education, Health Science, Humanities and Sociology. Exchange programs allow RU stu-

dents to study abroad while paying RU tuition. Hours earned are treated as if completed at RU for both program completion purposes and financial aid. Students must complete an RU Study Abroad Registration and Course Approval form outlining courses to be taken and approved before leaving to study abroad. Grade values are assigned as pass/fail, and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Office of the Registrar.

**Faculty Coordinator: See International Education Director**

**INST 489D. Study Abroad Practicum in Kansai Gaidai, Japan. (12-18)**

*Prerequisites: Consult Director of International Education. Available Fall, Spring,*

*and academic year. Open to all majors. Limited scholarships may be available.*

As an exchange student in Japan, participants can study almost any subject, including Japanese Business Overseas, Media in Japan, Anthropological Perspectives on Japan, Religion in Japan, and Japanese Art. Instruction is in English for most classes, and Japanese is taught at all levels. Exchange programs allow RU students to study abroad while paying RU tuition. Hours earned are treated as if completed at RU for both program completion purposes and financial aid. Students must complete an RU Study Abroad Registration and Course Approval form outlining courses to be taken and approved before leaving to study abroad. Grade values are assigned as pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar’s Office.

**Faculty Coordinator: See International Education Director**

**INST 489E. Study Abroad Practicum with Kassel Universitat in Germany. (12-18)**

*Prerequisite: German is required. Students should be enrolled in, or have completed, German coursework at the 300-level. Open to all majors. Semester or year.*

This is an exchange program that involves a directed program of travel study designed to

augment a student's knowledge of the German language and culture. Students will receive a minimum of 15 hours per week of formal language instruction in addition to being involved in a total immersion living situation. Permission by the department chair is required prior to enrollment. Exchange programs allow RU students to study abroad while paying RU tuition. Hours earned are treated as if completed at RU for both program completion purposes and financial aid. Students must complete an RU Study Abroad Registration and Course Approval form outlining courses to be taken and approved before leaving to study abroad. Grade values are assigned as pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**Faculty Coordinator: Dr. Philip Sweet**

**INST 489G. Study Abroad Practicum in Spain. (3-18)**

Language instruction.

*Prerequisites: Permission of the Spanish program director and the department chair is required. Available Summer, Fall or Spring. Open to all majors.*

Students participate in a directed program of travel study designed to augment a student's knowledge of the language, culture, and literature of Spain. Students will receive a minimum of 15 credit hours per week of formal language instruction in addition to being involved in a total immersion living situation. Permission by the department chair required prior to enrollment. Affiliate programs allow students to maintain RU student status while abroad, thus allowing them continued access to financial aid and future registration at RU. Students must complete an RU Study Abroad Registration and course Approval Form outlining courses to be taken and approved before leaving to study abroad. Grade values are pass/fail, and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**Faculty Coordinator: Dr. Blas Hernandez**

**INST 489H. International Study Abroad Program: Greece. (3-18)**

Format of course varies.

*Prerequisites: Consult Director of International Education.*

Open to all majors. Courses taken in this program must be taken for letter grades, and will be used in calculating student's GPA unless prohibited by their RU program requirements.

**Faculty Coordinator: Dr. Steve Arbury**

**INST 489I. Study Abroad Practicum with the Université Catholique de l'Ouest in Angers, France. (Semester Exchange Program) (3-15)**

*Prerequisite: Two years of undergraduate study.* Available Spring semester, students receive 15 credit hours and pay in-state tuition to Radford University. A program is also offered in the Summer with slightly different criteria - see the RU Summer Program for additional information. A directed program of travel study designed to augment a student's knowledge of the French language and culture. Students will usually receive a minimum of 15 hours per week of formal language instruction in addition to being involved in a total immersion living situation. Permission by the department chair is required prior to enrollment. Upon successful completion, students will receive a total of 15 credit hours. Grade values are assigned as pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**Faculty Coordinator: Dr. Eric du Plessis**

**INST 489J. Study Abroad Practicum in Glasgow, Scotland. (12-18)**

*Prerequisites: Music majors only. Students are expected to have an average 3.0 GPA or better to be accepted. Available Spring semester and academic year.*

This is an exchange program whereby music majors with a minimum 3.0 cumulative GPA are invited to apply to study at one of the oldest and most prestigious institutions in the United Kingdom. Exchange programs allow RU students to study abroad while paying RU tuition. Hours earned are treated as if completed at RU for

both program completion purposes and financial aid. Students must complete an RU Study Abroad Registration and Course Approval form outlining courses to be taken and approved before leaving to study abroad. Grade values are assigned as pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**Faculty Coordinator: Dr. Bruce Mahin**

**INST 489K. Study Abroad Practicum in Mexico. (3-18)**

Open to all majors. Offered Spring or Fall. A program is also offered in the Summer with slightly different criteria - see the RU Summer Program for additional information. A directed program of travel study designed to augment a student's knowledge of the language and culture of Mexico and Latin America. Grade values are assigned as pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office. Maximum of 18 credit hours.

**Faculty Coordinator: Dr. John Knowles**

**INST 489L. Study Abroad Practicum in China and Taiwan. (12-18)**

*Prerequisites: Consult Director of International Education.*

Open to all majors. This is an exchange program that allows RU students to study at the National Taiwan Normal University in China or Shanghai Normal University in China while paying RU tuition. Hours earned are treated as if completed at RU for both program completion purposes and financial aid. Students must complete an RU Study Abroad Registration and Course Approval form outlining courses to be taken and approved before leaving to study abroad. Grade values are assigned as pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**Faculty Coordinator: Dr. I-Ping Fu.**

**INST 489M. Study Abroad Practicum with AIFS. (12-18)**

*Prerequisites: Consult Director of International Education.*

This is an affiliate program that affords students the opportunity to study a variety of subjects through selected universities. Affiliate programs allow students to maintain RU student status while abroad, thus allowing them continued access to financial aid and future registration at RU. Students must complete an RU Study Abroad Registration and course Approval Form outlining courses to be taken and approved before leaving to study abroad. Grade values are pass/fail, and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**INST 489N. Study Abroad Practicum with AIU-London. (12-18)**

*Prerequisites: Consult Director of International Education.*

This is an affiliate program for study abroad in London. Affiliate programs allow students to maintain RU student status while abroad, thus allowing them continued access to financial aid and future registration at RU. Students must complete an RU Study Abroad Registration and course Approval Form outlining courses to be taken and approved before leaving to study abroad. Grade values are pass/fail, and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**INST 489O. Study Abroad Practicum with Salzburg College, Austria. (12-18)**

*Prerequisites: Consult Director of International Education.*

Open to all majors. This is an affiliate program with Salzburg College in Austria that provides students with the opportunity to study courses in the liberal arts, business and education. Instruction is in English. Affiliate programs allow students to maintain RU student status while abroad, thus allowing them continued access to financial aid and future registration at RU. Students must complete an RU Study Abroad Registration and course Approval Form

outlining courses to be taken and approved before leaving to study abroad. Grade values are pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Registrar's Office.

**INST 489Z. Non-RU Study Abroad Practicum. (6-18)**

*Prerequisite: Pre-approval by Director of International Education.*

Utilized as a means to acknowledge registration in a non-RU affiliated Study Abroad program that has been approved on an individual basis by the Director of International Education and for which a formal articulation agreement has been generated between the financial aid office of the participating university and RU. Special rules apply, so interested parties are strongly encouraged to consult with the University Registrar or the Director of Financial Aid for additional information. Grade values are assigned as pass/fail and the awarding of specific course credit is determined at the conclusion of the experience and when official transcripts are received by the Office of the Registrar. If preapproval has not been attained prior to the student's participation abroad, the student will not be considered enrolled at Radford University and credit will only be considered under the traditional transfer credit evaluation process.

## **INFORMATION TECHNOLOGY**

**ITEC 100. Introduction to Information Technology. (3)**

Three hours lecture, or two hours lecture and two hours lab.

Introduces students to the fundamental concepts in information technology and mathematical reasoning that provide the technical underpinning for state-of-the-art applications. Widely used computer applications, including office applications, databases, computer communications and networking, serve as examples.

**ITEC 108. Introduction to Game Development. (3)**

Two hours lecture; two hours lab.

This class provides an introduction to the theory, processes, and techniques for the development of modern video games. Using a simple, freely available game development environment, students will design, implement, and evaluate video games. Students will also study and critique existing games using the techniques discussed in class.

**ITEC 109. Problem Solving and Programming. (3)**

Two hours lecture; two hours lab.

An introduction to problem solving using programming. Topics include a survey of techniques used in problem solving, methods for representing the solution of a problem as an algorithm and the implementation of an algorithm as a computer program. Students who have received credit for ITEC 120 cannot subsequently receive credit for ITEC 109. ITEC 109 does not meet requirements for the ITEC major.

**ITEC 110. Principles of Information Technology. (3)**

Three hours lecture.

Provides an introduction to information technology, to the principles that underlie information technology, problem solving, and to the fields that make up information technology. Students who have received credit for INSY 281 may not receive credit for ITEC 110.

**ITEC 112. A Global Perspective of Information Technology. (3)**

Three hours lecture.

A study of information and communication technologies (ICT) with respect to how ICT supports, shapes, and enables economic and social changes. Covers the challenges of managing ICT, and studies the impact of ICT on business and society in an increasingly globalized world. This course has been approved for Core Curriculum credit in Global Perspectives.

- ITEC 120. Principles of Computer Science I.** (4)  
 Three hours lecture; two hours laboratory.  
 A rigorous, systematic approach to object oriented problem solving and programming.
- ITEC 122. Discrete Mathematics.** (3)  
 Three hours lecture.  
*Prerequisite: ITEC 120 (Grade of "C" or better) and MATH 125 or 126 or 138 or 140 or 151 or 155.*  
 An introduction to discrete mathematical concepts including set theory, finite state machines, and induction. Students who have received credit for CPSC 122 may not receive credit for ITEC 122.
- ITEC 198. Programming Language.** (1)  
 One hour lecture.  
 A self-paced course in which students that have had an introduction to programming can learn and apply another language. Languages that have been offered in the past include: FORTRAN, COBOL, LISP, C, Prolog, Shell, C++, Ada, and Visual Basic. Course may be taken up to four times with a different language each time.
- ITEC 202. Web Technology for End Users.** (3)  
 Three hours lecture.  
*Prerequisite: ITEC 100.*  
 A study of the technologies used on the World Wide Web to produce static and dynamic web pages. The course is targeted at non-IT professionals who nonetheless may have significant roles in the design, development, content, or implementation of web sites.
- ITEC 210. Design and Development of Visual Systems.** (3)  
 Three hours lecture.  
*Prerequisite: ITEC 120 (Grade of "C" or better).*  
 Introduction to the principles of visual programming including general software engineering principles, user interface design principles, and application of visual programming language. Students who have received credit for CPSC 210 cannot receive credit for ITEC 210.
- ITEC 220. Principles of Computer Science II.** (4)  
 Three hours lecture; two hours lab.  
*Prerequisite: ITEC 120 (Grade of "C" or better).*  
 Continuation, from ITEC 120, of the development of a disciplined approach to programming, with emphasis on data abstraction. Students who have received credit for CPSC 124 cannot receive credit for ITEC 220.
- ITEC 225. Web Programming I.** (3)  
 Three hours lecture.  
*Prerequisite: ITEC 109 (Grade of "C" or better) or ITEC 120 (Grade of "C" or better.)*  
 An introduction to web programming for those students that already understand programming fundamentals. Includes an introduction to a variety of web based programming languages as well as an introduction to operating system environments that support web applications. Students who have received credit for CPSC 103 or CPSC 107 cannot receive credit for ITEC 225.
- ITEC/GEOS 250. Advanced GIS (T).** (4)  
 Four hours lecture.  
 Course is designed to introduce students in geography as well as students from other disciplines working with the general concepts of Geographic Information Systems (GIS). Course will teach the theory and involve the practical use of GIS and geospatial data.
- ITEC 281. Data Management and Analysis with Spreadsheets.** (3)  
 Three hours lecture.  
 A study of basic and advanced techniques for data analysis and management using electronic spreadsheets. Coverage includes the study of features for gathering, managing, manipulating, and filtering data sets including multidimensional data. Techniques for collaborative use of a spreadsheet are covered including multi-user access, formula protection, and security. Advanced analysis coverage includes built-in and user defined functions, goal seeking, sensitivity analysis, scenario management, and data visualization.

**ITEC 301. Information Technology Management. (3)**

Three hours lecture.

*Prerequisite: ITEC 100.*

A study of principles, techniques, and tools for the management of information including, database management systems, decision support systems, and data warehouses.

**ITEC 304. Database from the Manager's Perspective. (3)**

Three hours lecture.

An examination of enterprise database management systems and reporting tools from the user/manager perspective. Emphasis is on data gathering, data organization, data retrieval, data integrity, and security. Database systems for transaction processing and data warehousing are compared and contrasted. Reporting, data mining, and decision support systems are introduced.

**ITEC 307. Programming Practicum. (1)**

One hour lecture.

*Prerequisites: ITEC 220, or permission of instructor.*

Provides practical experience writing programs to solve non-trivial, self-contained problems. The course includes lectures teaching and reviewing standard algorithms and data structures (e.g. searching a state space, and graph representations), discussion on how they might need to be adapted to a particular task at hand, and supervised lab time coding solutions. Problems are similar to those on programming contests, although participating in such contests is not required for the class (nor vice versa). This course may be taken more than once for credit. This course may not be used to satisfy a major requirement, including technical and B.S. electives. This class cannot contribute more than one hour of credit towards a minor within the Information Technology department. A student can repeat ITEC 307 but cannot receive more than 4 credit hours.

**ITEC 310. Programming in C and Unix. (3)**

Three hours lecture.

*Prerequisites: ITEC 110 and ITEC 220 (Both courses require grade of "C" or better).*

Introduces the C programming language including C library routines and the system call interface to the Unix operating system. File and terminal I/O, process control, and interprocess communication are also covered.

**ITEC 315. Graphical User Interface Design and Implementation. (3)**

Three hours lecture.

*Prerequisite: ITEC 225.*

A study of graphical user interface (GUI) design and implementation. Covers platform independent design concepts, frameworks and environments for GUI development, and problems and solutions associated with GUIs in a web environment. One or more integrated development environments (IDE) will be studied in depth. Students implement GUIs in a series of software development tasks.

**ITEC 320. Procedural Analysis and Design. (3)**

Three hours lecture.

*Prerequisites: ITEC 220 and ITEC 110 (Both courses require grade of "C" or better).*

An introduction to procedural analysis, design and programming for students who have prior exposure to object technology. Includes an introduction to a procedural language and procedural methods.

**ITEC 324. Principles of Computer Science III. (3)**

Three hours lecture.

*Prerequisites: ITEC 110 and ITEC 220 (Both courses require grade of "C" or better).*

Continuation, from ITEC 220, of the development of a disciplined approach to programming with emphasis on data abstraction.

**ITEC 325. Web Programming II. (3)**

Three hours lecture.

*Prerequisite: ITEC 225 (Grade of "C" or better) and ITEC 340.*

Covers the continuation of Web Programming I for tools, methods, and technologies for designing and producing multimedia pieces. More

basic technologies, tools and methods for designing and managing world wide web programming and development are discussed. Emphasis is on the role of today's e-business and world wide web in collaborative work. Practical experience in designing, implementing and maintaining hypermedia world wide web systems is planned.

**ITEC 330. Numerical Analysis. (3)**

Three hours lecture.

*Prerequisite: MATH 251 and ITEC 120.*

A study of algorithms useful in obtaining numerical solutions of problems on a digital computer. Students who have received credit for CPSC 330 cannot receive credit for ITEC 330.

**ITEC 340. Database I. (3)**

Three hours lecture.

*Prerequisite: ITEC 220 and ITEC 110 (Both courses require grade of "C" or better).*

A first introduction to database systems including the relational model, SQL, security, database design, and stored procedures. Students may not receive credit if they have previously taken INSY 383, 483 or CPSC 440.

**ITEC 345. Introduction to Information Security. (3)**

Three hours lecture.

*Prerequisite: ITEC 120. (Grade of "C" or better).*

Covers the fundamentals of information security. Lectures focus on providing a broad overview of principles, policies and procedures in security. ITEC 345 cannot be counted toward technical electives or B.S. requirements in any concentration. Students cannot earn credit for both ITEC 245 and ITEC 345.

**ITEC 350. Introduction to Computer Networking. (3)**

Three hours lecture.

*Prerequisite: ITEC 110 and ITEC 220 (Both courses require grade of "C" or better).*

Introduction to physical and logical networking concepts, including the ISO reference model, topologies, protocols, local and long-haul networks. Students who have received credit for CPSC 450 or INSY 371 may not receive credit for ITEC 350.

**ITEC 352. Computer Organization. (3)**

Three hours lecture.

*Prerequisite: ITEC 122 and ITEC 220 (Grade of "C" or better).*

Covers relationships among computer components, structures and systems, hardware features, costs, capabilities. Students who have received credit for CPSC 351 or 352 may not receive credit for ITEC 352.

**ITEC 360. Data Structures and Analysis of Algorithms. (3)**

Three hours lecture.

*Prerequisites: ITEC 122, ITEC 320, ITEC 324 and either MATH 251 or 255.*

Includes data structures, concepts and algorithms used in the solution of nonnumeric problems; applications to data management systems, file organization, information retrieval, list processing and programming languages. Students who have received credit for CPSC 360 may not receive credit for ITEC 360.

**ITEC 363. Integration of Software. (3)**

Three hours lecture.

*Prerequisite: ITEC 100.*

Designed to provide students with advanced microcomputer applications skills in word processing, spreadsheets, databases, and multimedia presentations. Major emphasis is placed on the integration of software packages to complete business applications. Students who have received credit for INSY 383 may not receive credit for ITEC 363.

**ITEC 370. Software Engineering I. (3)**

Three hours lecture.

*Prerequisite: ITEC 110 and ITEC 220 (Both courses require grade of "C" or better).*

An introduction to requirements analysis, specification, and design strategies for both procedural and object oriented approaches to development. Students who have received credit for CPSC 271 or INSY 481 may not receive credit for ITEC 370.

**ITEC 371. Operating Systems. (3)**

Three hours lecture.

*Prerequisite: ITEC 352.*

Principles of operating systems including interaction between operating systems and architecture of computer systems with emphasis

on resource management. Students who have received credit for CPSC 371 may not receive credit for ITEC 371.

**ITEC 380. Organization of Programming Languages. (3)**

Three hours lecture.

*Prerequisites: ITEC 320 and ITEC 324.*

Programming language constructs, runtime behavior of programs, desirable features of languages, design and implementation considerations to obtain those features. Students who have received credit for CPSC 380 may not receive credit for ITEC 380.

**ITEC 381. Spreadsheet Programming. (3)**

Three hours lecture.

*Prerequisites: ITEC 281 and either MATH 126 or MATH 151.*

This course teaches fundamental programming concepts using spreadsheet technology common in today's business environment. This course may not be used to satisfy a B.S. requirement or a technical elective in the Information Technology Department.

**ITEC 398. Software Development Technologies. (1-3)**

One to three hours lecture.

*Prerequisite: ITEC 220 (grade of C or better) and permission of instructor.*

Enables students to gain experience with programming languages, operating systems, and other tools, and technologies that are used to develop software. This course may be taken multiple times with a different topic each time. This course may not be used to satisfy a B.S. requirement or a technical elective.

**ITEC 400. Foundations of Computer Science. (3)**

Three hours lecture.

*Prerequisite: Senior standing.*

A rigorous, systematic approach to object oriented problem solving and programming. This is a leveling course for students who do not have either the educational or experience background to start the Information Technology (IT) courses for the IT concentration for a Masters in Education (MSED) program. ITEC 400 will not

count as graduate credit towards the ITEC Concentration for the MSED. Undergraduate students in the College of Information Science and Technology may not take this course for credit towards their degree.

**ITEC 410. Modeling and Simulation. (3)**

Three hours lecture.

*Prerequisites: ITEC 320 and STAT 301.*

An introduction to mathematical modeling and the simulation of models using a high-level programming language. Students who have received credit for CPSC 410 may not receive credit for ITEC 410.

**ITEC 420. Computability Theory and Formal Languages. (3)**

Three hours lecture.

*Prerequisite: ITEC 122.*

A survey of attempts to model computation and formal language concepts. Students who have received credit for CPSC 420 may not receive credit for ITEC 420.

**ITEC 425. Advanced Web Development. (3)**

Three hours lecture.

*Prerequisite: ITEC 325.*

An advanced development class in Web programming for those students that have completed the Web Programming I and II sequence. Includes the applied study of Web services, Web security, and other current topics in Web development.

**ITEC 430. Computer Graphics. (3)**

Three hours lecture.

*Prerequisite or corequisite: ITEC 360.*

A survey of the data structures and algorithms used in computer graphics. Students who have received credit for CPSC 430 may not receive credit for ITEC 430.

**ITEC 441. Database II. (3)**

Three hours lecture.

*Prerequisite: ITEC 340.*

A continuation of the introduction to the techniques used in the modeling and manipulation of large sets of data. An in-depth coverage of triggers, assertions, PS/SQL, advanced modeling concepts, normalization, etc.

**ITEC 442. Data Warehousing, Mining, and Reporting.** (3)

Three hours lecture.

*Prerequisites: ITEC 340.*

A continuation of principles of database systems and the introduction to techniques for the modeling and manipulation of large data sets. This course provides in-depth coverage of data warehousing, data mining, and reporting.

**ITEC 445. Computer System and Database Security.** (3)

Three hours lecture.

*Prerequisites: ITEC 122, ITEC 220 (Grade of "C" or better), ITEC 345, ITEC 340.*

Threats and vulnerabilities in software systems, principles to design and implement secure software systems, database and information security.

**ITEC 451. Network Design and Analysis.** (3)

Three hours lecture.

*Prerequisites: ITEC 122, ITEC 350, MATH 152, and either STAT 200 or STAT 301.*

Advanced concepts in networking including network performance, design, administration, security, and tuning. Students who have received credit for CPSC 450 may not receive credit for ITEC 451.

**ITEC 452. Distributed Computing.** (3)

Three hours lecture.

*Prerequisites: ITEC 310, ITEC 350, and ITEC 371.*

Introduction to analysis and design of distributed systems.

**ITEC 455. Applied Cryptography and Network Security.** (3)

Three hours lecture.

*Prerequisites: ITEC 122, ITEC 220 (Grade of "C" or better), ITEC 345, ITEC 340.*

Threats and vulnerabilities in computer networks, cryptography and its application to network security mechanisms, secure network protocols, and network intrusion detection systems.

**ITEC 460. Translator Design and Construction.** (3)

Three hours lecture.

*Prerequisites: ITEC 352 and ITEC 380.*

Logical design of and construction techniques

for compilers and interpreters. Students will complete a major project implementing a compiler or an interpreter. Students who have received credit for CPSC 460 may not receive credit for ITEC 460.

**ITEC 471. Software Engineering II.** (3)

Three hours lecture.

*Prerequisites: ITEC 320, ITEC 324, and ITEC 370.*

A continuation of principles of software engineering and the design and implementation strategies appropriate for large software projects. Includes the use of CASE tools, extreme programming methods, software metrics, verification, validation, quality assurance, and a further exploration of the principles of human-computer interaction.

**ITEC 472. Software Engineering III.** (3)

Three hours lecture.

*Prerequisite: ITEC 471.*

A continuation of principles of software engineering and the design and implementation strategies appropriate for large software elected topics in Information Technology, as student and faculty interest demands. A new course description is available each time the course is offered. Interested students should contact the course instructor before registering. This course may be taken more than once for credit with a different topic. This course may not be used to satisfy a General Education requirement or a requirement for the major or minor, which includes technical electives. This course may be used for a general elective or a B.S. elective.

**ITEC 480. Artificial Intelligence.** (3)

Three hours lecture.

*Prerequisite: ITEC 122 and ITEC 324.*

An introduction to the study of intelligence as computation. Students who received credit for CPSC 480 may not receive credit for ITEC 480.

**ITEC 485. Decision Support Systems.** (3)

Three hours lecture.

*Prerequisites: ITEC 100 and ITEC 340.*

Data and Modeling solutions to semi-structured business problems including expert systems, executive information systems, on-line analytical processing, natural language interfaces, and

ad-hoc query and reporting tools. Students who received credit for INSY 482 may not receive credit for ITEC 485.

**ITEC 488. Honors Capstone Project. (3)**

Three hours lecture.

*Prerequisites: Completion of all the required information technology courses up to the 300-level courses; enrollment in the Honors Program; senior standing.*

To earn a bachelor's degree with honors in Computer Science and Technology or Information Sciences and Systems, a student must complete a research project, write a report and make an oral presentation of the work done. In order to be eligible of a degree with honors, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

**ITEC 490. Senior Seminar. (1)**

One hour lecture.

*Prerequisite: Senior standing in computer science and technology or information science and systems.*

A seminar series designed to aid in the transition from the university to work. Includes topics in resume preparation, research, and ethics.

**ITEC 493. Selected Topics in Information Technology. (1-3)**

One to three hours lecture.

*Prerequisite: Permission of instructor.*

Selected topics in Information Technology, as student and faculty interest demands. A new course description is available each time the course is offered. Interested students should contact the course instructor before registering. This course may be taken more than once for credit with a different topic. This course may not be used to satisfy a General Education requirement or a requirement for the major or minor, which includes technical elective. This course may be used for a general elective or a B.S. elective.

**ITEC 495. Information Systems Capstone. (3)**

Three hours lecture.

*Prerequisites: Senior standing, Information Science and Systems major, ITEC 225, ITEC 340, ITEC 370, FINC 331, and MGNT 357.*

Advanced topics in information systems that

build on previous courses in software engineering, web programming, database and business. This course is intended to provide a large information system capstone experience.

**ITEC 498. Independent Study. (1-6)**

*Prerequisite: Permission of instructor.*

Independent Study courses are designed to permit students to investigate independently specific problems or areas of interest under the direction of a faculty advisor. This course may not be used to satisfy a General Education requirement, a B.S. requirement, or a requirement for the major or minor, which includes technical electives. This course may be used only for a general elective. See "Independent Study" on p. 53.

*For a complete listing of graduate courses, consult the Radford University Graduate Catalog.*

**LATIN**

**LATN 101. Elementary Latin I. (4)**

Four hours lecture and language practice.

Study of basic language structures and forms, pronunciation of classical Latin, English derivatives, and various aspects of Roman civilization. This course has been approved for Core Curriculum credit in Foreign Languages.

**LATN 102. Elementary Latin II. (4)**

Four hours lecture and language practice.

*Prerequisite: LATN 101 or permission of the instructor.*

Continued study of basic language structures and forms, pronunciation of classical Latin, English derivatives and Roman civilization. This course has been approved for Core Curriculum credit in Foreign Languages.

**LATN 201. Intermediate Latin. (4)**

Four hours lecture and language practice.

*Prerequisite: LATN 102 or two years of Latin in high school.*

Review of basic Latin grammar and syntax along with prose readings adapted to the level; study of relevant aspects of Roman civilization. This course has been approved for Core Curriculum credit in Foreign Languages.

**LATN 315. Advanced Grammar. (3)**

Three hours lecture.

*Prerequisite: LATN 350 or concurrent enrollment of LATN 350.*

Intensive study of Latin grammar and syntax. Recommended for students planning to teach Latin.

**LATN 350. Latin Literature. (3)**

Three hours lecture.

*Prerequisite: LATN 201 or permission of the instructor.*

Study of a major Latin author or genre. Topic will vary. Credit may be received each time topic is different. This course has been approved for Core Curriculum credit in Foreign Languages.

**LATN 460. Special Topics. (3-4)**

Three or four hours lecture.

*Prerequisites: LATN 350 and junior standing.*

Advanced study of topics in language, literature or culture. Readings in Latin. May be taken twice for credit.

## LEADERSHIP

**LEAD 110. Emerging Leadership. (3)**

*Prerequisite: Minimum of 2.0 GPA*

The course is designed to expose students to new perspectives on leadership and to encourage students to recognize their own potential as leaders. Through class discussions, readings, speakers and interactions, both on campus and in the community, students will be introduced to leadership theories, traits, and skills. This course will encourage students to be creative leaders, to accept and celebrate diversity, to recognize the importance of risk and change, and to see the potential in every person to be a leader.

## MATHEMATICS

**MATH 111. Math Content for Teachers I. (3)**

Three hours lecture.

A mathematics course for students interested in teaching careers in elementary, middle, or special education. The course focuses primarily on number and operations and on number

theory. Emphasis on developing deep, flexible understandings of mathematical content, as needed for teaching. The content of this course adheres to the National Council of Teachers of Mathematics Standards and the Virginia Standards of Learning where they can appropriately be applied. Will not satisfy requirements for a major in mathematics. Students cannot receive credit for both MATH 103 and MATH 111. This course has been approved for Core Curriculum credit in Mathematical Sciences.

**MATH 112. Math Content for Teachers II. (3)**

Three hours lecture.

A mathematics course for students interested in teaching careers in elementary, middle, or special education. The course focuses on geometry, measurement, algebra, and statistics. Emphasis on developing deep, flexible understandings of mathematical content, as needed for teaching. The content of this course adheres to the National Council of Teachers of Mathematics Standards and the Virginia Standards of Learning where they can appropriately be applied. Will not satisfy requirements for a major in mathematics. Students cannot receive credit for both MATH 109 and MATH 112. This course has been approved for Core Curriculum credit in Mathematical Sciences.

**MATH 114. Math and Human Society. (3)**

Three hours lecture.

Core Math for the Social Sciences. Topics covered include descriptive statistics, measurement, mathematical modeling, financial mathematics, and voting. Will not satisfy requirements for a major in mathematics. This course has been approved for Core Curriculum credit in Mathematical Sciences.

**MATH 116. Math and Humanity. (3)**

Three hours lecture.

Mathematics is studied in its historical and cultural context, as a creative human endeavor. Topics covered include numerical and geometrical ideas and their development, sets, infinity, formal logic, and applications to music and the visual arts. Will not satisfy requirements for a major in mathematics. This course has been approved for Core Curriculum credit in Mathematical Sciences.

**MATH 125. Finite Mathematics for Business and Economics.** (3)

Three hours lecture.

*Prerequisite: Two years of high school algebra (or equivalent).*

Contains an introduction to the concepts of functions and graphing, with focus on linear, quadratic, exponential and logarithmic functions. Applications contain simple linear models, linear systems, optimization with quadratic functions and problem solving in finance, such as compound interest and annuities. Calculators and/or EXCEL will be used in problem solving. Will not satisfy requirements for a major in mathematics. This course has been approved for Core Curriculum credit in Mathematical Sciences.

**MATH 126. Business Calculus.** (3)

Three hours lecture.

*Prerequisite: Four years of high school mathematics.*

An introduction to calculus with particular emphasis on applications in business and economics. Topics include functions, limits and continuity, differentiation, exponential functions and logarithms, anti-derivatives and the integral. Students who wish to strengthen their mathematics skill before taking MATH 126 are advised to enroll in MATH 125. Will not satisfy requirements for a major in mathematics. Students who have received credit for MATH 121 or for MATH 151 may not also receive credit for MATH 126. This course has been approved for Core Curriculum credit in Mathematical Sciences.

**MATH 132. Honors Applications of Mathematics.** (3)

Three hours lecture.

*Prerequisite: Honors Academy membership.*

An introduction to the application of mathematical ideas for Honors students. Topics vary. This course can be taken more than once with different topics. This course has been approved for Core Curriculum credit in Mathematical Sciences.

**MATH 135. Fundamentals of Geometry.** (3)

Three hours lecture.

*Prerequisite: MATH major or permission of instructor.*

Introduces core concepts and principles of Euclidean geometry, with some attention also

given to non-Euclidean geometry. Emphases are placed on the use of spatial visualization and geometric modeling to explore and analyze geometric shapes, structures, and their properties from both formal and informal perspectives. Course content adheres to the National Council of Teachers of Mathematics and Standards and the Virginia Standards of Learning where they can appropriately be applied. Students who have earned credit for MATH 109 may not subsequently earn credit for MATH 135.

**MATH 137. College Algebra.** (3)

Three hours lecture.

A systematic approach to the concepts of algebra. Topics include basic properties of numbers systems, equations and inequalities, systems of equations, functions and graphs, polynomials and rational functions, exponentials and logarithms. Will not satisfy requirements for a major or a minor in mathematics. Credit for MATH 137 will not be granted after a student has received credit for any of the following: MATH 126, 138, 151, 152, 251, 252 or the equivalent transfer course. Students who have earned credit for MATH 104 may not subsequently earn credit for MATH 137. This course has been approved for Core Curriculum credit in Mathematical Sciences.

**MATH 138. Precalculus Function Analysis.** (3)

Three hours lecture.

*Prerequisite: A minimum of two years of high school algebra (or equivalent).*

Basic concepts of functions and related real number algebra and graphing, especially polynomial, exponential and logarithmic functions. Will not satisfy requirements for a major in mathematics. This course has been approved for Core Curriculum credit in Mathematical Sciences.

**MATH 140. Trigonometry and Analytic Geometry.** (3)

Three hours lecture.

*Prerequisite: Adequate algebra skills necessary.* Fundamental concepts of plane trigonometry and of plane analytic geometry. Trig functions, trig identities, solving triangles, analytic geometric proofs, conics, parametric equations. Will not satisfy requirements for a major in mathematics.

**MATH 142. Discrete Mathematics. (3)**

Three hours lecture.

*Prerequisite: MATH major or permission of instructor.*

Introduces the student to discrete structures and mathematical tools which are used to represent, analyze, and manipulate discrete objects. These include sets, functions, relations, graphs, combinatorics, discrete probability, recurrence relations, mathematical induction, symbolic logic, and graphs and trees.

**MATH 151:152. Calculus and Analytic Geometry I and II. (3:3)**

Three hours lecture. Three hours credit for each course.

*Prerequisite: Students must satisfy one of the following: (1) a grade of "C" or better in an approved college-level precalculus course, including or in addition to some trigonometry at the high school or college-level; (2) an SAT math score of 550 or better (or a MATH ACT score of 23 or above); or (3) a passing score on a placement exam approved by the math department.*

The first part of this course covers the concepts of functions, limits and continuity of functions, the derivative, and rules and applications of differentiation. The second part deals with the Riemann integral, the fundamental theorem of calculus, methods of integration, and applications. Mathematical software packages and graphing calculators will be used as illustrative and problem-solving devices. These courses have been approved for Core Curriculum credit in Mathematical Sciences.

**MATH 160. Introductory Seminar in Mathematics. (1)**

One hour seminar.

*Prerequisites: Mathematics major.*

Designed for students new to the mathematics major, this is a seminar course that will discuss various professional skills needed to succeed in the major and in a mathematical career. Topics may include: introduction to mathematics literature, discussions of career options, introduction to mathematics technology, and introductions to different topics in mathematics.

**MATH 251:252. Calculus and Analytic Geometry III and IV. (3:3)**

Three hours lecture, three hours credit for each course.

*Prerequisite: MATH 152.*

The first part of this course covers sequences and series, Taylor and power series, parametric curves, geometry higher dimensional spaces, and vector-valued functions. The second part deals with functions of several variables, discussion of limits, continuity, and differentiability, multivariable optimization, iterated integrals and applications to volumes, line integrals and Green's Theorem. Mathematical software packages and graphing calculators will be used as illustrative and problem solving devices.

**MATH 260. Introductory Linear Algebra. (3)**

Three hours lecture.

Matrix Operations, systems of linear equations, Gaussian elimination, determinants, basic properties of vector spaces, basis and orthogonality, and eigenvalues and eigenvectors. Calculators and computer software such as MATLAB will be used in this course.

**MATH 280. Problem Solving. (3)**

Three hours lecture.

*Prerequisites: MATH 152 and MATH 260.*

Problem solving requiring techniques from precalculus, geometry, first-year calculus, elementary linear algebra, and basic statistics.

**MATH 300. Mathematical Foundations. (3)**

Three hours lecture.

*Prerequisites: MATH 142 or ITEC 122, and MATH 152 and any MATH course numbered 200 or above.*

A first course in the foundations of modern mathematics. The topics covered include propositional and predicate logic, set theory, the number system, induction and recursion, functions and relations, and computation. The methods of proof and problem solving needed for upper-division coursework and the axiomatic basis of modern mathematics are emphasized throughout the course. The level of the course is challenging but appropriate for students with a minimum of three semesters of college mathematics. Students who have earned credit

for MATH 200 may not subsequently earn credit for MATH 300.

**MATH 312. Elementary and Middle Grades Mathematics for Social Analysis. (3)**

Three hours lecture.

*Prerequisites: MATH 111 and MATH 112, or permission of instructor.*

The primary purpose of this course is to prepare future and current elementary and middle school teachers to critically analyze and explore the world using mathematics. Students will conduct meaningful and carefully reasoned real-world investigations and critiques using elementary and middle school mathematics, and also communicate the results of these problem-posing and problem-solving investigations both orally and in writing. This course examines the interplay among mathematical topics and integrates mathematics across the curriculum. Students are introduced to the National Council of Teachers of Mathematics (NCTM) Standards and to the Virginia Standards of Learning. Mathematical content emphases are also based on the NCTM Standards and include topics in number operations, algebraic thinking, geometry, measurement, and data analysis and probability. Students who have earned credit for MATH 315 may not subsequently earn credit for MATH 312.

**MATH 321. History of Mathematics. (3)**

Three hours lecture.

*Prerequisites: MATH 135, MATH 142 or ITEC 122, and MATH 251.*

The pursuit of mathematics as a human endeavor, illustrating how mathematics has developed over the past 5,000 years including the contributions of diverse cultures. This course will cover not only the evolution and historical perspective of the development of mathematics, but will include a study of the mathematics itself.

**MATH 325. Special Methods-Secondary Mathematics Education. (3)**

Three hours lecture.

*Prerequisite: STAT 301 and MATH 251.*

A special methods course in the teaching of mathematics at the secondary level. Will not satisfy requirements for a major in mathematics except for those in the Bachelor of Science

degree program pursuing certification to teach. Special emphasis will be placed on the role of technology in teaching, problem solving, and representation of mathematics concepts.

**MATH 346. Differential Equations. (3)**

*Prerequisite: MATH 152 and MATH 260.*

A study of techniques for solving differential equations, including first and second order equations and linear systems of equations; Laplace transform and numerical methods. Applications in the sciences will be considered.

**MATH 403. Foundations of Geometry. (3)**

Three hours lecture.

*Prerequisite: MATH 300.*

Studies systems of postulates in a comparison of Euclidean and non-Euclidean geometries; geometric structures such as incidence geometry and transformational geometries. The content of this course adheres to the NCTM Standards and the Virginia Standards of Learning where they can appropriately be applied.

**MATH 412. Theory of Numbers. (3)**

Three hours lecture.

*Prerequisite: MATH 300.*

Study of divisibility, primes, congruences, diophantine equations and quadratic residues.

**MATH 423:424. Abstract Algebra I, II. (3:3)**

Three hours lecture.

*Prerequisite: MATH 300.*

A study of the structure of algebraic systems with emphasis on groups, rings, integral domains, and fields.

**MATH 428. Complex Variables. (3)**

Three hours lecture.

*Prerequisite: MATH 252.*

A study of elementary functions with a complex domain and techniques of differentiation and integration of complex functions.

**MATH 430:431. Advanced Calculus. (3:3)**

Three hours lecture.

*Prerequisite: MATH 252.*

A systematic modern approach to the differential and integral calculus of functions of one and

several variables, including standard theorems and analytical techniques of mathematical analysis.

**MATH 434:435. Numerical Analysis I and II. (3:3)**

*Prerequisite: MATH 252 and MATH 260.*

Introduction to scientific programming, numerical solution of linear system of equations, interpolation, solution of non-linear equations, numerical integration, numerical methods for differential equations.

**MATH 441. Topology. (3)**

Three hours lecture.

*Prerequisite: MATH 252.*

An introduction to point-set topology, with emphasis on the study of functions and the real line.

**MATH 445:446. Operations Research. (3:3)**

Three hours lecture.

*Prerequisites: MATH 445: MATH 152; MATH 446: STAT 301 and MATH 445.*

Study of mathematical models used in business organizations or any system of operations. Topics include linear programming, game theory and inventory theory.

**MATH 451. Mathematical Logic. (3)**

Three hours lecture.

*Prerequisite: MATH 403 or MATH 423 or MATH 430.*

An introduction to mathematical logic, including the completeness theorem for the predicate calculus.

**MATH 460. Linear Algebra. (3)**

Three hours lecture.

*Prerequisite: MATH 252.*

A study of vector spaces, linear transformations, matrix representations, determinants and characteristic roots.

**MATH 471. Combinatorics and Graph Theory. (3)**

Three hours lecture.

*Prerequisite: ITEC 122 and MATH 460.*

Fundamental ideas of combinatorics and graph theory, permutations and combinations, inclusion and exclusion, ordinary generating

functions, recurrence relations, graphs and digraphs, trees and networks.

**MATH 480. Topics in Mathematics. (3)**

Three hours lecture.

*Prerequisite: Permission of instructor.*

Special topics in mathematics, as student and faculty interest demands; syllabus is available each time the course is offered. Interested students should contact the department chairperson and the course instructor before registering. May be taken again for credit with a different topic.

**MATH 488. Final Honors Project. (2-3)**

*Prerequisite: Major in mathematics and/or statistics, enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 GPA in all courses and in mathematics and statistics, senior standing.*

Topic to be explored determined by the student, the faculty member with whom the student works and the department. Topics may be chosen from the areas of analysis, algebra, topology or applied mathematics. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated. See "Honors Academy" on p. 81

**MATH 498. Independent Study. (1-6)**

See "Independent Study" on p. 53.

**MATH 499. Internship in Mathematics. (1-6)**

*Prerequisite: Junior or senior standing; at least a 2.5 GPA overall, at least a 2.5 GPA in mathematics and permission of instructor.*

Applications of theory learned in the classroom to real-world mathematical problems in a professional setting. Provides a platform for building teamwork skills and solving interdisciplinary problems.

**MANAGEMENT**

**MGNT 101. Introduction to Business and Entrepreneurship. (3)**

Three hours lecture.

Provides a basic background for the study of businesses and entrepreneurship, and promotes

an understanding of the fundamental business practices. Note: Not open to juniors and seniors except by permission of instructor.

**MGNT 221. Fundamentals of Management.** (3)

Three hours lecture.

Designed to provide non-business majors with basic management skills which can be used to increase their effectiveness as managers in a wide variety of professions. Note: Not open to junior or senior level business majors. Business majors must have completed the Pre-business program (p. 90) and have been admitted to a business major, in addition to having completed any specific prerequisite or corequisite courses, to be eligible to take 300- or 400-level management courses. Students in other majors may take 300- or 400-level management courses if they have reached junior or senior standing and have completed any specific prerequisite or corequisite courses.

**MGNT 250. Entrepreneurship and Innovation.** (3)

Three hours lecture.

Provides an overview of the principles, theories, and practice of entrepreneurship and innovation. Emphases will be placed on the student understanding how past entrepreneurs have used innovation methods to launch entrepreneurial ventures; and how the student can use their own creativity to launch entrepreneurial ventures.

**MGNT 322. Organizational Behavior.** (3)

Three hours lecture.

*Prerequisite: Junior standing.*

A study of individual and group behaviors within organizations. Intended to develop in managers a greater awareness of the problems and opportunities in managing individuals in organizations and in increasing employee effectiveness. A business core requirement.

**MGNT 323. Human Resource Management.** (3)

Three hours lecture.

*Prerequisite: Junior standing.*

Introduction to the most important functions of human resource management, including strategic HR planning, EEO laws, job analysis,

recruitment, selection, training and development, performance appraisal, and compensation.

**MGNT 330. Managing Technology and Information Resources.** (3)

Three hours lecture.

*Prerequisite: Junior standing.*

Topics covered include information technologies, information development, and the impact of information technology on organizations at a variety of levels, from personal information systems to enterprise information architectures. Attention is given to the use of information systems for achieving a competitive advantage.

**MGNT 333. Statistical Decision Support.** (3)

Three hours lecture.

*Prerequisite: Junior standing, STAT 200, and MATH 126 or MATH 151.*

Application of descriptive statistics, mathematical modeling, microcomputer technology, and problem solving processes to the solution of business problems. A business core requirement.

**MGNT 350. Owning and Managing a Business.** (3)

Three hours lecture.

*Prerequisite: Junior standing.*

Designed for students who want to learn more about privately held businesses. Major topics include: identifying business opportunities and threats, evaluating firm performance, developing and managing growth strategies, professional management in the entrepreneurial firm, managing assets, managing human resources, managing risk, preparing a succession plan, and evaluating exit strategies. Students are advised to take one or more of the following courses: ACTG 212; FINC 331; or MKTG 340 before enrolling in this class.

**MGNT 357. Operations Management.** (3)

Three hours lecture.

*Prerequisite: MGNT 333.*

Study of modern theory and practice for planning and controlling the operations function, both in manufacturing and service organizations. Quantitative tools of analysis used to support decision making in the various activities of operations management are reviewed. A business core requirement.

- MGNT 361. Organizational Communications.** (3)  
Three hours lecture.  
*Prerequisite: Junior standing.*  
Instruction in effective written and oral communications commonly used by leaders and managers in business organizations.
- MGNT 421. Leadership and Motivation.** (3)  
Three hours lecture.  
*Prerequisite: Junior standing and MGNT 322.*  
Study of leadership as an interactive process involving the leader, followers, and situation. Emphasizes understanding the concepts and theories of leadership and motivation and how they are applied by practicing organizational leaders and managers.
- MGNT 425. Management of Change.** (3)  
Three hours lecture.  
*Prerequisite: Junior standing and MGNT 322.*  
Introduces organizational development as well as the occurrence of structural and cultural change in organizations. Individual change systems theory is also discussed.
- MGNT 428. Global Business Strategy.** (3)  
*Prerequisite: FINC 331, MGNT 357, MKTG 340 and senior standing.*  
A capstone course focusing on how organizations achieve sustained success in a competitive global economy. Functional skills acquired in other business classes are integrated in making ethical strategic decisions and applying them to competitive positioning. A business core requirement.
- MGNT 436. Cultural Diversity and International Management.** (3)  
Three hours lecture.  
*Prerequisite: Junior standing.*  
Study of cultural diversity and the challenges of managing multinational operations in a global business environment. Focuses on understanding, sensitivity, and appreciation for cultural differences. Emphasizes a global perspective on planning for organizational growth and utilizing effective international human resource management practices. Students cannot receive credit for both MGN 326 and MGNT 436.
- MGNT 450. Managing New Venture Creation.** (3)  
Three hours lecture.  
Instructs students on the initiation of business ventures. Topics to be covered in the course include the creation, identification, and analysis of business models; the process of launching new ventures, as either a privately-owned entrepreneurial or corporate-owned intrapreneurial venture; the identification, acquisition, and deployment of the resources necessary to implement business visions; and the implication of growth on firm dynamics.
- MGNT 452. Business Consulting.** (3)  
Three hours lecture/field work.  
*Prerequisite: MGNT 350 or MKTG 340 and FINC 331, or permission of instructor.*  
Introduces the student to comprehensive organizational analysis, alternative development and implementation planning in a business firm. Students will work in teams with the management of firms in the surrounding area. Extensive field work is required. managers of firms assigned to their team, conduct analysis of the firm's problems and develop a plan of action for solving the problems identified. Professional presentations are an integral part of this course.
- MGNT 457. Technology and Innovation Management.** (3)  
Three hours lecture.  
*Prerequisite: Junior standing.*  
The management of innovation and technology is becoming increasingly important and pervasive in the complex and challenging technology-based business environment. This course emphasizes the role of innovation and emerging technologies in competitiveness and how they impact the strategic and operational objectives of an organization.
- MGNT 460. Business and Society.** (3)  
Three hour seminar.  
*Prerequisite: Senior standing and MGNT 322, or permission of instructor.*  
Contemporary issues organizations face with emphasis on the professional conduct of business in a dynamic environment. Special topics may include: business ethics, social

responsibility, public affairs, competitiveness, community relations, labor relations, issues management or environmental management.

**MGNT 471. Special Topics in Management.** (1-6)

Hours and credits to be arranged.

*Prerequisite: Junior standing and approval of instructor.*

Examines topics of special interest in management area not covered in current course offerings. Can be taken more than once for a maximum of six hours credit. Depending upon the topic, this course may be used to meet requirements for the minor in Women's Studies.

**MGNT 472. Independent Study.** (1-4)

*Prerequisite: Approval of Department Chair.*

Gives an individual student the opportunity to examine a topic of personal interest in more depth than is possible in any existing course. See "Independent Study" on p. 53.

## MARKETING

**MKTG 340. Principles of Marketing.** (3)

Three hours lecture.

*Prerequisite: Junior standing*

An overview of the discipline of marketing, the evolution of the marketing concept and the interface of marketing with other major organizational functions. The functions and institutions of marketing are related to the controllable variables of product, price, distribution and promotion. Emphasis is on adapting to uncontrollable domestic and international environments by adjusting the controllable marketing variables. A business core requirement.

**MKTG 341. Advertising Strategy.** (3)

Three hours lecture.

*Prerequisite: Junior standing and MKTG 340.*

An in-depth study of the administration of the complete advertising program. Integration and coordination of promotion with other variables of the marketing mix as they relate to consumer and industrial markets.

**MKTG 342. Internet Marketing.** (3)

Three hours lecture.

*Prerequisite: Junior standing and MKTG 340.*

Introduction to the rapidly evolving world of Internet marketing. The opportunities, problems, tactics and strategies associated with incorporating electronic methods into the marketing function are examined. Emphasis is placed on experiential learning and the latest technological aspects of marketing in the online environment.

**MKTG 343. Retailing.** (3)

Three Hours Lecture.

*Prerequisites: Junior standing and MKTG 340.*

Designed to provide a comprehensive understanding of the key perspectives that shape the retail marketplace including environmental influences, retail relationships, retail analysis and decision-making strategies.

**MKTG 344. Sales Management.** (3)

Three hours lecture.

*Prerequisite: Junior standing and MKTG 340.*

Planning, organizing, leading, acquiring and controlling are applied to the management of the sales force and the coordination of the sales force with the total marketing effort.

**MKTG 345. Integrated Marketing Communication (IMC).** (3)

Three hours lecture.

*Prerequisites: Junior standing and MKTG 340.*

Examines how various marketing functions can work together cohesively to achieve effective marketing communication. Students learn how marketing actions need to fit together harmoniously to produce "one voice" in a brand or firm's communication with its audience.

**MKTG 350. Consumer Behavior.** (3)

Three hours lecture.

*Prerequisite: Junior standing and MKTG 340.*

A study of consumer purchase decision process, the variables that affect consumer behavior, and the utilization of the knowledge of consumer behavior in the development of effective marketing strategies. This course draws heavily on such social science disciplines as psychology, sociology, cultural anthropology and economics.

**MKTG 360. Professional Selling.** (3)

Three hours lecture.

*Prerequisite: Junior standing and MKTG 340.*

Contains a study of the theory and practice of professional selling and provides an opportunity for skill development relative to sales careers. After studying practical buyer-seller relationships, the students examine the roles of planning, interpersonal communication and resource management in selling effectiveness.

**MKTG 440. Logistics.** (3)

Three hours lecture.

*Prerequisite: Junior standing and MKTG 340.*

The study of inventory, transportation and traffic management, storage and other logistics functions as an integrated system within the firm and throughout the firm's supplier and customer channels. Uses problem-solving case studies with computer assisted decision making.

**MKTG 442. International Business.** (3)

Three hours lecture.

*Prerequisites: Junior standing, MKTG 340 and FINC 331.*

A study of the theories, institutions and trends in international trade and investment. Emphasis placed on the environment within which international business is practiced and the opportunities and challenges managers face in doing business across national boundaries.

**MKTG 444. Supply Management.** (3)

Three hours lecture.

*Prerequisite: Junior standing and MKTG 340.*

The study of organizational acquisition of equipment, materials, services and supplies. Students learn current purchasing and logistics supply chain operations and relations in organizational markets including industrial, business-to-business, institutional and governmental. Case studies and/ or computer simulations used.

**MKTG 445. Marketing Strategy.** (3)

Three hours lecture.

*Prerequisites: Junior standing, MKTG 340, and 6 additional hours of MKTG.*

An analysis of marketing environments and the development of marketing objectives, programs and strategies. Marketing strategies developed

are integrated with other functional areas within the organization. Case studies and computer simulations may be used.

**MKTG 446. Marketing Research.** (3)

Three hours lecture.

*Prerequisites: Junior standing, STAT 200, and MKTG 340.*

The uses and applications of marketing research in the marketing management decision process employing a project-oriented approach to engage students in all aspects of the marketing research process, from problem definition through management recommendations.

**MKTG 452. International Marketing.** (3)

Three hours lecture.

*Prerequisites: Junior standing and MKTG 340 or permission of instructor.*

The study of global marketing strategies with emphasis on adjusting plans and techniques to accommodate marketing in different cultures. Case studies and computer applications may be used.

**MKTG 471. Special Topics in Marketing.** (1-6)

*Prerequisite: Junior standing and MKTG 340.*

Examines topics of special interest in marketing area not covered in current course offerings. May be taken more than once for a maximum of six hours credit. Hours and credit to be arranged. Depending upon the topic, this course may be used to meet requirements for the minor in Women's Studies.

**MKTG 472. Independent Study.** (1-4)

*Prerequisite: Approval of Department Chair.*

Gives an individual student the opportunity to examine a topic of personal interest in more depth than is possible in any existing course. See "Independent Study" on p. 53.

**MKTG 481. Marketing Study Abroad.** (3-6)

*Prerequisites: Junior or senior standing and MKTG 340 or permission of instructor.*

The study of international marketing with an emphasis on adapting decision-making processes and strategies to accommodate different cultures. Marketing decision processes and methods are examined within the context of

an international environment. The class provides opportunities to enhance communication and technology skills, and may include pre-trip meetings and assignments, an in-country experience, and post-trip reflective assignments.

**MKTG 488. Final Honors Project. (2-3)**

*Prerequisites: Completion of business core, enrollment in the Honors Academy, senior standing, a minimum 3.5 GPA in all courses and in marketing.* Research project in marketing. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

**MKTG 490. Marketing Internship. (3)**

*Prerequisites: Junior or senior standing; minimum GPA of 2.5 (cumulative) 3.0 (major); and permission of instructor.*

A one- or two-semester program of work and study in the student's major area and/or career interest. Learning objectives, qualifications and hours of work approved by faculty coordinator and sponsoring agency. Final grade determined by supervising faculty. Graded A-F. Course may not be repeated for better grade

For a description of graduate courses, please consult the *Radford University Graduate Catalog*.

## MILITARY SCIENCE

**MSCI 111. Introduction to Leadership and the Army. (2)**

One hour lecture; two hours laboratory. Enrollment in course incurs no military obligation. This course of instruction is an introductory study of various leadership styles and their effects on military organizations and the organization of the U.S. Army, its roles, missions, customs and traditions. Students also receive instruction on the use of the lensatic compass, map reading, first aid, CPR, and physical conditioning. As part of the course, students participate as a member of a team observing and evaluating leader behavior in a variety of situations, both in and out of the classroom. Adventure training is available on an elective basis and can include rappelling, field

activities and weapons firing. Students may apply for three-year ROTC scholarships.

**MSCI 112. Developing Leadership I. (2)**

One hour lecture; two hours laboratory. Enrollment in course incurs no military obligation. This course of instruction includes an introduction to the principles of leadership, methods to determine and develop the student's individual leadership style, evaluating and improving writing and speaking skills, and an introduction to leadership in small tactical units. The course also includes instruction in developing skills involved with individual physical conditioning, land navigation, first aid, and map reading. Students also participate as a member of a team that observes and evaluates leadership styles in a variety of situations. An evaluation of each student's physical fitness level is conducted to determine eligibility for Airborne, Air Assault or Mountain Warfare training. Students may apply for three-year ROTC scholarships.

**MSCI 211. Leadership Styles/Theory and Application. (3)**

Two hour lecture; two hours laboratory. *Prerequisites: MSCI 111 and 112 or department chairperson's permission.* Early in course incurs no military obligation. This course involves the study of individual leadership styles and techniques using historical case studies. Students are also introduced to the branches (specialties) of the Army. The concepts and applications of communication and goal-setting in small organizations are analyzed. Students are provided an opportunity to develop and improve their writing and public speaking skills through a required written exercise and an oral presentation. They are also evaluated as a team leader required to accomplish specific collective tasks in a practical setting. The course includes physical fitness training and evaluation. Adventure training is available on an elective basis. Students may apply for two-year scholarships.

## **MSCI 212. Developing Leadership**

### **Skills II.**

(3)

Two hour lectures; two hours laboratory.

Enrollment in course incurs no military obligation. Course includes analyzing group missions to determine specified and implied tasks, organizing and conducting an oral presentation, and preparing a concise, written directive (operations order) detailing how a team will accomplish a task. Students also serve as a team leader during a 48-hour off-campus practical exercise incorporating individual skills of land navigation and physical conditioning. Adventure training is available on an elective basis. An assessment of physical fitness levels is conducted to determine eligibility for summer Airborne, Air Assault or Mountain Warfare training. Students may apply for two-year scholarships.

### **Summer Leadership Introduction Camp Challenge (Ft. Knox, KY) N/C**

This is a five-week leadership skills course that allows students between their sophomore and junior year the opportunity to gain constructive credit for the ROTC Basic Course. During this program students learn basic military tasks, including Rifle Marksmanship, Land Navigation, Map Reading, Leadership Principles, Rappelling, Water Survival, Basic Tactical Training, and participate in daily Physical Fitness. Upon completion of this program each student who desires to continue with the ROTC program will be enrolled in the Advanced Course. This is an excellent opportunity to determine if the Army ROTC program is right for the applicants, without any obligation for further service. Student's may compete for two-year scholarships.

## **MSCI 311. Leading Small Organizations. (4)**

Three hours lecture; two hours laboratory.

*Prerequisites: MSCI 111, 112, 211, 212 and 200-level courses or placement credit as determined by the Professor of Military Science for qualified veterans of military service.*

Involves analyzing ethical dilemmas in leadership when organizational goals conflict with member welfare, examining the role of policy and standard operating procedures in organizations, and developing effective writing and oral presentation skills. Students are also required

to organize a team and successfully lead it to a predetermined location (land navigation in the Jefferson National Forest). Instruction includes students serving as an apprentice instructor conducting a physical training session for 30 participants. Students are also evaluated as leaders of a 10-person team and alternately as a leader of a five person team, assigned various tasks to complete during a 48-hour off-campus exercise.

## **MSCI 312. Developing Leadership III. (4)**

Three hours lecture, two hours laboratory.

*Prerequisites: MSCI 111, 112, 211, 212 or placement credit as determined by the Professor of Military Science.*

Involves planning for the unexpected in organizations under stress; developing alternate courses of action which can succeed; how to delegate tasks and supervise subordinate leaders; and when and how to provide guidance and direction. Students also analyze a military operation and, as a leader of a 35-member platoon, prepare a written directive (operations order) necessary to successfully complete the mission. The operations order is presented orally to the student's platoon, and the student is evaluated on his ability to lead the unit to the successful accomplishment of the mission through properly utilizing three subordinate squad leaders and six team leaders in a 48-hour off-campus exercise. Course emphasis is on unit leader responsibilities, map interpretation, tactical communications, doctrine, systems and techniques, first aid, water survival, rappelling, squad and platoon offensive and defensive tactics, land navigation and other basic military skills. Evaluation of physical fitness level is conducted to determine eligibility for Airborne, Air Assault or Mountain Warfare training, participation in the Advanced Leadership Camp (Ft. Lewis, WA) and for assignment as a leader in an active Army unit during the summer.

### **Summer Leadership Practicum and Evaluation (Ft. Lewis, WA) N/C**

This is an ROTC advanced level requirement.

Students spend five weeks at an advanced leadership camp conducted during the summer for all cadets who have successfully completed the

first three years of military science. Leadership potential is evaluated through approximately six to eight leader opportunities where students are placed in positions leading five, 10 and 35-member teams and organizations. Cadets are evaluated in 12 leadership dimensions, including: Values, Attributes, Skills, Making Decisions, Communication (both oral and written), Motivating People, Planning and Organizing activities, Executing Actions, Assessing Progress and Results, Developing People, Building Teamwork and Learning from Experiencing. This intensive leadership practicum results in an evaluation which qualifies each student's leadership potential in terms of a written assessment and numerical grade. An order of merit list is compiled which rank orders all students attending camp.

**MSCI 411. Leadership Challenges and Organizational Goal-Setting. (4)**

Three hours lecture, two hours laboratory.

*Prerequisites: MSCI 311, 312.*

Includes studies in advanced leadership and management: how to assess organizational cohesion and what to do if it is lacking. Students conduct an after-action review and write an after-action report based upon lessons learned from the past summer's Advanced Leadership Practicum at Ft. Lewis. They also examine the components of the Army's training cycle. Students study 384 methods of instruction and conduct classes for underclassmen. They also learn how to counsel subordinates to improve individual and group performance. Students continue to improve oral and written communication skills through the presentation of a briefing and submission of a written assessment of leadership failures or successes based upon a "first battle" chosen from any American military conflict.

**MSCI 412. Transition to Officership. (4)**

Three hours lecture; two hours laboratory.

*Prerequisites: MSCI 311, 312 and 411.*

Prepares students for service as commissioned officers on Active Duty in the U.S. Army Reserves or Army National Guard. Students are introduced to Army management systems: personnel and logistics, the military's legal system and its application at company level, and the officer/noncommissioned officer relationship.

They are also taught how to prepare subordinate evaluation forms, and how to establish professional goals and objectives through preparation of the Officer Evaluation Report support form. The future officers learn leading "from the front" through providing instruction (both on- and off- campus) to underclassmen. They are also required to complete a staff action which involves selecting a project, establishing milestones, estimating resources (sources and costs), presenting an "In Progress Review" briefing, and submitting a written final report summarizing the end results of the completed work at term end. Students plan, prepare and conduct field training exercises for the training of underclassmen. They also prepare and conduct selected leadership laboratory instruction for MSCI 100- 200- and 300-level students.

**MSCI 498. Independent Study. (1)**

*Prerequisites: MSCI 311, 312, 411 and 412.*

Requires one or more in-depth individual research assignments culminating with a presentation of findings at the end of the semester to the senior Military Science instructor (RU Army ROTC OIC). All course material will be researched and presented in accordance with Department of Defense (DoD) and Department of the Army (DA) regulatory guidance. The grade option for this course will be in accordance with the standard RU A-F grading scale.

**MUSIC**

**MUSC 100. Introduction to Music Literature. (3)**

Three hours lecture.

Examination of music literature of all periods; emphasis on standard concert repertory. Development of essential listening skills and understanding of music of other cultures. Required of all music majors and open to students in other curricula. This course has been approved for Core Curriculum credit in Visual and Performing Arts.

**MUSC 102. Fundamentals of Music****Therapy. (3)**

Three hours lecture.

*Prerequisites: Music major (MUS or PMUS) or permission of instructor.*

Principles and practice in the field of music therapy. Required of all music therapy majors and open to students in other curricula with permission of instructor.

**MUSC 104. The Arts, Entertainment, and the Marketplace. (3)**

Three hours lecture.

An overview of the many diverse fields and career opportunities within the Arts and Entertainment industries is covered with an emphasis on music business related fields. A survey of career options and a study of relevant publications and industry resources related to arts and entertainment media, retail, management, marketing, and promotion is included.

**MUSC 111:112. Theory I:II. (3:3)**

Three hours lecture.

*Prerequisite (MUSC 111): None. Prerequisite (MUSC 112): Completion of MUSC 111 with a grade of "C" or better.*

Fundamentals of music and the principles of vertical and linear organization through analysis and exercises in part-writing.

**MUSC 114:115. Ear Training and Sight Singing I:II. (1:1)**

Two hours laboratory.

*Prerequisite (MUSC 114): None. Prerequisite (MUSC 115): Completion of MUSC 114 with a grade of "C" or better.*

Development of aural skills through exercises in sight singing, rhythmic reading and music dictation.

**MUSC 120. Introduction to Music Education. (1)**

Two hours lecture/laboratory.

Introduces the profession of music education to prospective school music teachers, including historical, philosophical and sociological foundations and legal issues affecting students

and teachers. Students engage in critical thinking about the music teaching profession and examine themselves as potential music teachers.

**MUSC 121. The Art of Music. (3)**

Three hours lecture.

Introduction to elements of music. Study of important forms, styles and media of Medieval, Renaissance, Baroque, Classical, Romantic and 20th century music. For non-music majors. This course has been approved for Core Curriculum credit in Visual and Performing Arts.

**MUSC 123. The Art of Jazz. (3)**

Three hours lecture.

Study of the basic elements and history of jazz music through lectures and listening. This course has been approved for Core Curriculum credit in Visual and Performing Arts.

**MUSC 127. Introduction to Computer Music. (3)**

Three hours lecture.

*Prerequisite: Music major.*

Introduction to current digital technologies used in the creation, manipulation, and distribution of sound and music using MIDI hardware and software applications. Develops skills that are essential for the production and distribution of music using digital technologies through project-based assignments and examinations.

**MUSC 128. Computer Music Techniques. (3)**

Two hours lecture; two hours laboratory.

*Prerequisite: MUSC 127.*

Exploration of sound synthesis, digital sampling and computer-based sound editing techniques. Access to resources in the Center for Music Technology. Recital of student works given at the end of the spring semester.

**MUSC 129. Pro Tools. (3)**

Three hours lecture.

*Prerequisites: MUSC 104, Music major, or permission of instructor.*

Students learn the basic concepts and production techniques use with Pro Tools; topics include creating sessions, creating audio and

MIDI recordings, navigating the recording session, mixing with Pro Tools and basic mastering techniques.

**MUSC 134. Jazz Combo. (1)**

Three hours rehearsal.

*Prerequisite: Audition.*

Performance of standard jazz literature in a small group setting. Emphasis on improvisation, development and building of a repertory of jazz tunes for performance. Presents programs throughout the year on and off campus. Open to all students by audition each semester. May be taken again for credit.

**MUSC 143:144. Diction for Singers. (1:1)**

Two hours laboratory.

*Corequisite: Applied Voice.*

English, Italian, French, German and Latin diction for singers, including an overview of basic grammar and vocabulary.

**MUSC 145. Chorus. (1)**

Three hours rehearsal.

*Prerequisite: Audition.*

Performance of challenging choral literature of all styles and periods for tenor and bass voices. Participation in various activities and concerts on and off campus. Joins with other university choral ensembles to form the RU Choral Union for the performance of extended masterworks. Open to qualified students of any major. Qualified members of this choir may perform contemporary a cappella music. A maximum of four credits may be used to meet the ensemble requirement for music majors. May be taken again for credit.

**MUSC 147. Chorale. (1)**

*Prerequisite: Audition.*

Performance of challenging choral literature of all styles and periods for soprano and bass voices. Participation in various activities and concerts on and off campus. Joins with other university choral ensembles to form the RU Choral Union for the performance of extended masterworks. Open to qualified students of any major. Qualified members of this choir may perform contemporary a cappella music. A maximum of four credits may be used to meet the ensemble

requirement for music majors. May be taken again for credit.

**MUSC 151. Chamber Orchestra. (1)**

Three hours rehearsal.

Emphasis on major works of chamber orchestra literature. Open to qualified students. May be taken again for credit.

**MUSC 160. Beginning Class Piano. (1)**

Three hours laboratory.

*Prerequisite: Audition/Interview.*

Keyboard skills at an introductory level are offered for non-keyboard music majors, minors, and non-music majors who have had limited experience. The course includes sight reading, analysis, memorization and performance of music; harmonization and transportation of melodic lines; playing "by ear" and other creative activities, including improvisation.

**MUSC 161:162. First Year Class Piano. (1)**

Three hours laboratory.

*Prerequisites: (MUSC 161) Audition and music reading ability and (MUSC 162) Completion of MUSC 161 with grade of "C" or better.*

Keyboard skills at the first and second basic levels is offered for non-keyboard music majors and minors. This course includes sight reading, analysis, memorization and performance of music; technical skills to develop a "feel" for the topography of the keyboard: harmonization and transposition of melodic lines; playing by "ear" and other creative activities, including composition and improvisation.

**MUSC 169:170. Applied Music. (1-2)**

One-half or one-hour private lesson.

Hours earned may not be counted toward either the Bachelor of Arts, Bachelor of Music, or Bachelor of Science major. May be taken again for credit.

**MUSC 211:212. Theory III:IV. (3:3)**

Three hours lecture.

*Prerequisites: (MUSC 211): Completion of MUSC 112 with a grade of "C" or better and (MUSC 212): Completion of MUSC 211 with a grade of "C" or better.*

Shaping features of texture, timbre, rhythm and tonal motion at various levels. Dissolution of tonality from late chromatic harmony through the emergence of 20th century techniques, including Impressionism, set theory, 12-tone technique, experimentation and neo-Impressionism.

**MUSC 214:215. Training and Sight Singing III:IV. (1:1)**

Two laboratory hours.

*Prerequisites: (MUSC 214): Completion of MUSC 115 with a grade of "C" or better and (MUSC 215): Completion of MUSC 214 with a grade of "C" or better.*

Continuation of First Year Ear Training and Sight Singing.

**MUSC 216:217. Keyboard Harmony. (1:1)**

Two hours laboratory.

*Prerequisite: Level I proficiency in keyboard.*

Practical application of harmonization, improvisation, score reading and figured bass realization.

**MUSC 218. Jazz Piano. (1)**

Two hours laboratory.

*Prerequisite: Level I proficiency in keyboard.*

Development of piano skills necessary to perform jazz as a solo musician or within an ensemble setting. Emphasis on comping (jazz style accompanying) and solo improvisation with practical applications toward performance.

**MUSC 219. Jazz Improvisation II. (1)**

Two hours laboratory.

*Prerequisites: Completion of MUSC 162 with grades of "C" or higher.*

Advanced study of Jazz improvisation and performance practices for instrumentalists through direct listening, theoretical analysis, transcription, and performance.

**MUSC 227. Computer Music Applications. (3)**

Three hours lecture.

*Prerequisite: ITEC 110.*

Practical approaches to problems and solutions related to the use of computers in music education, composition, performance, commercial recording and activities where the digital representation of sound is important. Focus on application development.

**MUSC 228. Music in Podcasting. (3)**

Three hours lecture.

Survey and critical evaluation of music in podcasting as an art form, including the design and production of original material appropriate for Internet distribution. Considers use of music and text to express ideas and concepts which have relevance to personal, cultural, and social contexts. Analysis of formal structures appropriate to the medium.

**MUSC 257. Singing for the Stage. (1)**

Three hours.

Fundamental instruction in vocal technique, music literacy, and preparation of audition repertoire through computer-assisted programs, group tutorials, and class performance. May be taken again for credit

**MUSC 261:262. Second Year Class Piano. (1:1)**

Three hours laboratory.

*Prerequisites (MUSC 261): Completion of MUSC 162 with a grade of "C" or better or audition.*

*Prerequisites (MUSC 262): Completion of MUSC 261 with a grade of "C" or better or audition.*

Keyboard skills at the third and fourth basic level are offered for non-keyboard music majors and minors. The course includes sight reading, analysis, memorization, and performance of music; technical skills to develop a "feel" for the topography of the keyboard; harmonization and transposition of melodic lines; playing by "ear" and other creative activities, including improvisation.

**MUSC 302. Clinical Orientation in Music Therapy. (2)**

Two hours lecture, two hours laboratory and one-two hours observation/ participation per week.

*Prerequisite: MUSC 102.*

This organized and structured experience in a clinical setting involves observation and participation in a clinical setting under the supervision of a board certified music therapist, and may be taken again for credit.

**MUSC 305. Music with the Disabled. (3)**

Three hours lecture.

Application of music as therapy with the major disability categories: serves as a preparation for music therapy clinical practicum requirements.

**MUSC 308. Marketing the Arts. (3)**

Three hours lecture.

*Prerequisite: MUSC 104 or permission of instructor.*

An intensive study of marketing and promotion as applied to the various arts disciplines. Areas addressed include market research, segmentation of populations, target audiences, development of promotional materials, and planning and implementation of marketing plans.

**MUSC 310. Wind Bands. (1)**

One hour rehearsal.

Wind Ensemble (auditioned seating) and Symphonic Band (open seating). Emphasis on study and performance of a wide variety of band literature. Concerts and sectionals are required in addition to weekly rehearsals. Open to qualified students. May be taken again for credit.

**MUSC 315. Contract and Copyright Law for Musicians. (3)**

Three hours lecture.

*Prerequisite: MUSC 104 or permission of instructor.*

Provides an intensive study of legal and business issues in the arts and entertainment industries. Topics covered include copyrights, legal agreements, royalties, and the role of manager, agent, producer, and investor.

**MUSC 321-322. History of Music. (3,3)**

Three hours lecture.

*Prerequisite: MUSC 100.*

General survey of history and literature of music. Required of all music majors and open to students in other curricula. 321: Fall; 322: Spring.

**MUSC 323-343. Applied Music. (1-2)**

Half hour private lesson (one credit) or one hour private lesson (two credits) – trumpet, 323; French horn, 324; trombone, 325; euphonium, 326; tuba, 327; flute, 328; clarinet, 329; saxophone, 330; oboe, 331; bassoon, 332;

percussion, 333; piano, 334; guitar, 335; violin, 337; viola, 338; cello, 339; string bass, 340; voice, 341; composition, 342; organ, 343. May be taken again for credit

**MUSC 344. Methods and Literature for School Choirs. (3)**

Three hours lecture.

*Prerequisite: Completion of MUSC 352 and MUSC 354 with minimum grades of "C".*

A study of instructional methods and materials for teaching choral music in PreK-12 School settings. Includes a survey of exemplary choral literature with treble, cambiata, mixed choirs, and the investigation of performance practices for various style periods and multicultural/world music. At least six hours of observation/participation in public school music classes.

**MUSC 346. Methods and Literature for School Bands. (3)**

Three hours lecture.

*Prerequisite: Completion of MUSC 352 and MUSC 354 with minimum grades of "C".*

A survey of instructional methods and literature for beginning, intermediate and advanced school bands. Includes curriculum planning, rehearsal techniques, performance practices for various style periods and cultures. At least six hours of observation/participation in public school music classes and participation in Lab Band as conductor teacher and performer is required.

**MUSC 348. Woodwind Techniques. (2)**

Six hours laboratory.

Development of skills, teaching methods and materials, field experiences, and knowledge in the fundamentals of playing, teaching and maintaining woodwind instruments: clarinet, saxophone, flute, oboe, and bassoon.

**MUSC 349. Brass Techniques. (2)**

Three hours laboratory.

Development of skills, teaching methods and materials, field experiences, and knowledge in the fundamentals of playing, teaching, and maintaining brass instruments: trumpet, horn, trombone, euphonium, and tuba.

**MUSC 350. Percussion Techniques. (2)**  
Six hours laboratory.  
Introduction to basic percussion instrument performance techniques.

**MUSC 351. String Techniques. (1)**  
Three hours laboratory.  
Fundamentals of playing violin, viola, cello and bass; teaching skills; maintenance techniques.

**MUSC 352. Growth and Development of the Music Learner. (3)**  
Two hours lecture; one hour laboratory.  
A study of the musical, mental, physical, behavioral-emotional, and social growth characteristics of students and of individual differences among students. Course focuses on the relationship between human development and the music curriculum. Students will address state and national standards through peer instruction. Laboratory includes at least nine hours observation in schools, exercises in peer teaching, and uses of technology in music education.

**MUSC 353. Classroom Instruments. (1)**  
Three hours laboratory.  
*Prerequisite: Completion of MUSC 120 with a grade of "C" or better.*  
Study of instruments commonly used in general music classes in schools, including pitched and unpitched percussion, recorder, guitar, baritone ukulele, and autoharp. The course includes playing techniques for classroom ensembles, including western and non-western instruments, improvisation in general music, instrument construction, repertoire, and basic arranging for classroom instruments. Information on using the voice effectively in the classroom is also included. Students will address state and national standards through classroom instrument instruction.

**MUSC 354. Introduction to Conducting. (2)**  
Three hours.  
*Prerequisite: MUSC 100.*  
*Pre- or Corequisites: MUSC 212 and 215.*  
Introduces basic techniques including application of aural and rhythmic skills. Fall.

**MUSC 355. Choral Conducting. (3)**  
Three hours.  
*Prerequisite: MUSC 354.*  
Continuation of MUSC 354 with emphasis on conducting techniques, score interpretation and rehearsal methods inherent to conducting vocal music. Instruction covers vocal techniques, literature, and diction. At least four hours of observation/participation in public school settings is required for Music Education majors.

**MUSC 356. Instrumental Conducting. (3)**  
Three hours lecture/lab.  
*Prerequisites: MUSC 354 and one semester each of Woodwind Class, Brass Class, Percussion Class and String Class.*  
Continuation of MUSC 354 with emphasis on band and orchestral conducting. Score reading, instrumental score interpretation, instrumental rehearsal techniques, teaching musicianship, literature, instrumentation. Each student prepares score for rehearsal by large instrumental ensemble. Participation in Lab Band as conductor-teacher and performer is required.

**MUSC 357. K-12 Vocal Pedagogy. (3)**  
Two hours lecture, one hour laboratory.  
Study of vocal development from kindergarten through high school. The course incorporates both theoretical perspectives and practical experience with respect to guiding and working with the developing voice. At least 6 hours of observation/participation in public school settings is required for Music Education majors.

**MUSC 360. Marching Band Techniques. (1)**  
Two hour lecture, laboratory.  
A survey of the methods and materials necessary for the organization, administration, and instruction of school marching bands. At least four hours of observation/participation in public school music classes is required.

**MUSC 364. Jazz Techniques I. (1-2)**  
Three hours lecture/laboratory.  
*Prerequisite: MUSC 112 or permission of instructor.*  
Development of skills and knowledge in the fundamentals of performing and improvising in the jazz idiom. Provides an overview of the

methods and materials necessary for the development of high school/middle school jazz ensemble programs. Topics include jazz styles and phrasing, jazz theory, ensemble directing skills, pedagogical techniques, and development of improvisation through listening, analysis, transcription, and performance. At least four hours of observation/ participation in public school music classes is required.

**MUSC 366. Travel Study. (1-12)**

Academic study involving domestic and/or international travel. May be taken again for credit with different topics or areas of study.

**MUSC 367:368. Guitar Class. (1:1)**

Three hours.

Beginning through intermediate guitar techniques intended primarily for students requiring functional skills. Open to all students with consent of instructor. MUSC 367:fall; 368:spring.

**MUSC 369:370. Fretboard Skills. (1:1)**

Two hours laboratory.

*Prerequisites: MUSC 368 and permission of instructor for non-guitar performance majors.* Basic skills in harmonization, transposition, position studies and improvisation will be studied as they specifically apply to the fingerboard.

**MUSC 373. Computer Music Composition. (1-2)**

Two hours (1) or four hours laboratory (2).

*Prerequisites: MUSC 127 and MUSC 212.*

Original compositions using electronic sound sources are prepared for performance in a concert setting or as a vital component in an audio-visual presentation. Existing works composed for electronic sound sources are surveyed. May be taken again for credit.

**MUSC 375. Influence of Music on Behavior. (3)**

Three hours lecture.

*Prerequisite: Upper level standing as a music therapy major.*

*Pre- or Corequisite: MUSC 102.*

Study of uses of music, past and present, and its effects on man's behavior.

**MUSC 391. Topics in the Arts and Entertainment Business. (1)**

One lecture, two hours field study.

*Prerequisite: MUSC 104 and permission of instructor.*

Variable topic course. Will study major topics and issues in the arts and entertainment fields. The class content will draw from important and relevant industry issues, current events, and individual student interests and projects. May be taken again for credit. Depending upon the topic, this course may be used to meet requirements for the minor in Women's Studies.

**MUSC 402. Clinical Orientation in Music Therapy. (1)**

See MUSC 202:302:402.

**MUSC 404. Music Business Field Experience. (1)**

One hour lecture.

*Prerequisite: MUSC 104 and permission of instructor.*

This organized and structured experience in a music business setting involves 30 to 60 hours of observation and participation under the supervision of a business manager or owner. May be taken again for credit.

**MUSC 416. Fund-raising and Finance for the Arts. (3)**

Three hours lecture.

*Prerequisites: MUSC 104 and permission of instructor.*

An intensive study of financial and funding issues in the arts and entertainment industries, and the role of the financial manager and development director in these affairs. Topics covered include financial planning and reporting, budgeting, and grant writing and research.

**MUSC 417. Form and Analysis. (3)**

Three hours lecture.

*Prerequisite: MUSC 212.*

Standard forms from small units through concerto and fugal techniques. Synthesis of larger, more general concepts. Comparative study of various periods and cultures.

- MUSC 418. Arranging and Orchestration. (3)**  
 Three hours lecture.  
*Prerequisite: MUSC 212.*  
 Scoring for various band and orchestral ensembles; vocal and instrumental arranging. Includes the study, preparation and performance of scores.
- MUSC 419. Counterpoint. (3)**  
 Three hours lecture.  
*Prerequisite: MUSC 212.*  
 The detailed study and composition of the various contrapuntal devices and forms found in the history of western music.
- MUSC 420. Methods and Materials in Music Therapy. (3)**  
 Three hours lecture.  
*Prerequisites: MUSC 112 and upper-level standing as a music therapy major.*  
*Pre- or Corequisites: MUSC 205 and 336.* Investigates existing methods and resource materials in music therapy. Development of new method and resource materials. Covers practices and techniques of recreational music, and their application to all disability areas.
- MUSC 421:422. Guitar History and Literature. (2:2)**  
 Two hours lecture.  
*Prerequisites: MUSC 321 and 322.*  
 A study of guitar history and literature from the Renaissance to the present will include such topics as notation, performance practices, instrumental development and social contexts.
- MUSC 428. Computer Music Forum. (1-2)**  
 Two hours (1) or four hours (2) presentations and discussion.  
*Prerequisite: MUSC 128.*  
 Intensive work on individual projects in computer music and related research, with class discussion of these and of current developments in the field. Graduate credit requires work at advanced levels. May be taken again for credit.
- MUSC 433. Advanced Jazz Combo. (1)**  
 Two Hours Rehearsal.  
*Prerequisite: Audition.*  
 Performance of advanced jazz literature for a jazz combo. Emphasis on composition/arranging, improvisation, development of repertory of jazz tunes for performance. Present concerts and programs throughout the year on and off campus.
- MUSC 434. Jazz Ensemble. (1)**  
 Three hours rehearsal.  
*Prerequisite: Audition.*  
 Exposure, learning and performance of traditional and contemporary styles of music for the jazz ensemble. Presents formal and/or informal programs throughout the year on and off campus. Open to all students for audition. A maximum of one credit may be used to meet the large ensemble requirement for music majors. May be taken again for credit.
- MUSC 435. Percussion Ensemble. (1)**  
 Three hours rehearsal.  
*Prerequisite: Audition.*  
 Performance of contemporary percussion/marimba ensemble literature. Presents programs throughout the year on and off campus. Open to all students by audition each semester. A maximum of one credit may be used to meet the large ensemble requirement for music majors. May be taken again for credit.
- MUSC 436. Guitar Ensemble. (1)**  
 Three hours rehearsal.  
*Prerequisite: Audition.*  
 The Guitar Ensemble offers training in sight-reading and chamber music performance skills for guitarists. Performs both on and off campus, and is open to all students by audition, each semester. A maximum of four credits may be used to meet the large ensemble requirement for majors. May be taken again for credit.
- MUSC 437. Digital Ensemble. (1)**  
 Two hours rehearsal.  
*Prerequisite: MUSC 128 or equivalent.*  
 Existing and original music is prepared for public performance using electronic sound sources in a chamber ensemble setting. May be taken again for credit.

- MUSC 445. Guitar Pedagogy.** (3)  
Three hours lecture.  
Guitar instructional principles, procedures, materials and their applications will be studied. This course will investigate both historical and current theories and practice.
- MUSC 446. Methods and Practicum for General Music.** (3)  
Three hours lecture.  
*Prerequisites: MUSC 161:162, MUSC 352, and MUSC 353.*  
Study of methods and materials for the teaching of Pre K-12 general music. At least 15 hours of observation/participation in public school general music classes are required.
- MUSC 449. Piano Pedagogy.** (3)  
Three hours lecture, demonstration, laboratory.  
*Prerequisite: Level 4 proficiency in piano.*  
Survey of piano teaching materials, methods and approaches, with emphasis on elementary through intermediate level students; practical demonstration and application of material; observation of teaching and supervised student teaching.
- MUSC 450. Chamber Music Ensemble.** (1)  
Two hours rehearsal.  
*Prerequisite: Permission of instructor.*  
Rehearsal and performance of chamber music literature from duo sonatas to chamber works for strings, winds, mixed strings and winds with or without piano. May be taken again for credit.
- MUSC 455. Madrigal Singers.** (1)  
Three hours rehearsal.  
*Prerequisite: Audition.*  
Performs primarily a capella literature from the Renaissance through the 20th century. A high degree of personal musicianship, discipline and vocal ability is required. A maximum of four credits may be used to meet the large ensemble requirements for music majors. May be taken again for credit.
- MUSC 456. Radford Singers.** (1)  
Four hours rehearsal.  
*Prerequisite: Audition.*  
Performs a wide variety of choral music from all historical periods. A high degree of personal musicianship, discipline and vocal ability is required. Participates in concerts, tours and other activities both on and off campus. May be taken again for credit.
- MUSC 457. Opera Workshop.** (1)  
Three hours rehearsal.  
*Prerequisite: Audition.*  
Study and preparation of vocal roles and ensembles to produce an opera and/or opera excerpts. Presents programs on and off campus throughout the year with two evenings of a fully staged performance in the spring. A maximum of two credits may be used to meet the large ensemble requirement for music majors. May be taken again for credit.
- MUSC 458. Accompanying.** (1)  
Two hours lab/coaching.  
*Prerequisite: Permission of instructor.*  
Accompanying of instrumentalists and vocalists in rehearsals and public performances. May be taken again for credit. Music Education students spend at least four hours as an accompanist for a school choral ensemble during final required semester.
- MUSC 459. Methods and Practicum for Performing Ensembles.** (3)  
Three hours lecture.  
*Prerequisite: Admission to the Music Teacher Education program.*  
A study of techniques for planning, teaching, and managing successful school performing ensembles. At least 15 hours observation/participation in schools are required.
- MUSC 462. Student Teaching in Music K-12.** (12)  
*Prerequisite: Admittance into the Teacher Education Program.*  
Clinical experience on one or more grade levels appropriate to music certification in Virginia; begins with observation and limited participation and culminates in assumption of full responsibility in the classroom. Special seminars

regularly scheduled to enhance the professional development of the student. Pass/Fail.

**MUSC 470. Fourth Year Applied Music.(1-3)**

One-half hour (one credit) or one-hour private lesson (two or three credits). Three credits available to performance majors only.

*Prerequisite: Completion of MUSC 372 with a grade of "C" or better.*

Upper level applied music instruction for students who have met their major requirements in applied music. May be taken again for credit.

**MUSC 477. Music in Therapy. (3)**

Three hours lecture.

*Prerequisites: Senior standing, all music therapy core courses and upper level standing as a Music Therapy major.*

An intensive study of music as therapy including assessment, implementation and evaluation procedures within all major treatment models.

**MUSC 485:486 Psychology of Music. (3:3)**

Three hours lecture.

*Prerequisites: Senior standing, BIOL 322, and upper level standing as a Music Therapy Major.*

Science of sound and music including acoustics, the hearing anatomy, aesthetics, perception, evaluation and measurement of musical ability and achievement, research and statistical method in music. Required of all Music Therapy majors and open to students in other curricula.

**MUSC 488. Final Honors Project. (2-3)**

*Prerequisite: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 GPA in all courses and in music.*

To earn a bachelor's degree with honors in music, a student must conduct research and write a thesis based on the research. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

**MUSC 492. Computer Music Project. (2)**

Four hours laboratory.

*Prerequisites: MUSC 128; MUSC 212; MUSC 227.*

After substantial inquiry into a major topic area of computer music, such as multimedia perfor-

mance, sound synthesis, psycho acoustics or existing electronic music repertoire, a written document or public performance is prepared.

**MUSC 493. Internship in Music Therapy. (1-12)**

*Prerequisite: Completion of all undergraduate course requirements in music therapy, upper level standing as a Music Therapy major and permission of instructor.*

Six-month internship in an approved facility under a board-certified therapist.

**MUSC 494. Internship in Music Business. (3-6)**

*Prerequisite: Completion of all undergraduate music business courses with a grade of "C" or better and permission of instructor.*

Eight weeks full-time work in the management aspects of a business related to music chosen by the student and approved by the advisor and department chairperson.

**MUSC 495. Seminar in Music History and Literature. (2-3)**

Two-three hours lecture.

*Prerequisites: MUSC 321 and 322.*

Specialized topic course. Study of advanced music history or literature. May be taken again for credit with different topics.

**MUSC 497. Undergraduate Recital. (1-3)**

(Half recital - one credit. Full recital - two or three credits.)

*Prerequisite: Level six proficiency in Applied Music or Composition and permission of instructor for a full recital. Level three proficiency in Applied Music or Composition and permission of instructor for a half recital.*

Formal public performance. Three credits available to performance level students only. This course may serve as the final honors project in music. A minimum grade of "B" must be earned in order to receive credit toward completion of the Honors Academy requirements.

**MUSC 498. Independent Study. (1-3)**

*Prerequisites: MUSC 321 and 322.*

See "Independent Study" on p. 53.

**MUSC 499. Undergraduate Thesis.** (2)

*Prerequisites: MUSC 322 and 498.*

Formulation and writing of an extended paper on an appropriate topic relating to music history and literature. This course may serve as the final honors project in music. A minimum grade of "B" must be earned in order to receive credit toward completion of the Honors Academy requirements.

*For a description of graduate courses, please consult the Radford University Graduate Catalog.*

## NURSING

**NURS 111. Personal Health.** (3)

Three hours lecture.

Emphasizes current health issues most applicable to college-age population. Students exposed to information and strategies used to deal effectively with life adjustment problems and to promote healthful living habits. Open to all students. (Students who have earned credit for HLTH 111 may not earn credit for NURS 111.) This course has been approved for Core Curriculum credit in Health and Wellness.

**NURS 321. Pathophysiology.** (3)

Three hours lecture.

*Prerequisite: BIOL 322.*

Major pathophysiologic concepts are explored. Theories relating etiology, pathogenesis, and clinical manifestations are used to study common disease processes. Concepts from anatomy and physiology provide the foundation for exploring human dysfunction. Concepts learned in this course are basic to the health professions. This course is open to all students.

**NURS 330. Foundations for Professional Practice.** (3)

Three hours lecture

*Prerequisite: Upper division standing; Registered Nurse students.*

The objectives and content of this Level One Course are derived from the School of Nursing's philosophy and conceptual framework and facilitate achievement of the School's program objectives, as well as the essentials of

Baccalaureate Education (AACN). Additionally, the major topics and skills covered in this course are common to most foundational and professional texts. Current research and advancement in nursing theory and clinical practice also determine course content.

\* Signifies RN to BSN course.

**NURS 335. RN Transition I.** \* (3)

Three hours lecture; two hours laboratory

*Prerequisite: Upper division standing; Registered Nurse students.*

The objectives and content of this course are derived from the AACN Essentials of Baccalaureate Education for Professional Nursing Practice and the School of Nursing's philosophy and conceptual framework to facilitate the achievement of the program objectives. The course integrates pathophysiology, pharmacology and health assessment for the experienced Registered Nurse as follows: (1) focuses on pathophysiology throughout the lifespan providing the student with a scientific knowledge base applicable to clinical practice (2) emphasizes the relationship of drugs and their effects on humans, and (3) focuses on the use of health assessment skills with clients throughout the lifespan providing the student with the opportunity to gain the knowledge and skills required to perform a systematic health assessment.

**NURS 340. Health Assessment Throughout the Lifespan.** (3)

Two hours lecture; two hours laboratory.

*Prerequisite: Upper division standing* Focuses on the use of health assessment skills required to perform a systematic health assessment.

**NURS 345. Professional and Therapeutic Foundations of Community-Based Nursing Practice.** (7)

Four hours lecture; three hours clinical lab.

*Prerequisite: Upper division standing.*

Focuses on the foundational skills necessary for successful community based nursing practice.

**NURS 352. Mental Health Nursing.** (5)

Three hours lecture; six hours practicum.

*Prerequisite: Upper division standing.*

Development of nursing knowledge and skill for mental health promotion, protection, and restoration.

- NURS 362. Nursing Research.** (2)  
Two hours lecture.  
*Prerequisite:* NURS 340, 345, 352 or permission of instructor.  
Provides a comprehensive overview of the research process including problem statements, review of literature, methodology, design, sampling, data collection, and interpretation of findings. The course emphasizes knowledge and skills that are essential for critical evaluation of data-based publications and presentations.
- NURS 364. Nursing of the Adult I.** (6)  
Four hours lecture, six hours practicum.  
*Prerequisites:* NURS 340, 342, 343 and 352.  
Develops the student's theoretical knowledge of holistic nursing care of the adult. Practicum provides opportunity to promote, protect, and restore health of acutely and chronically ill adults through application of theoretical knowledge in a variety of settings.
- NURS 366. Nursing of Childbearing Family.** (5)  
Three hours lecture; six hours practicum.  
*Prerequisites:* NURS 340, 341, 342 and 352.  
In-depth consideration of the childbearing phase of the lifecycle with application of theory through nursing care of clients and their families related to childbearing in a variety of health care venues or in the community.
- NURS 368. Nursing Pharmacology I.** (2)  
**Two hours lecture.**  
*Prerequisite:* Admission to nursing program.  
Emphasis is placed on medication administration mathematics and the relationship of drugs and their effects on humans.
- NURS 369. Nursing Pharmacology II.** (2)  
**Two hours lecture.**  
*Prerequisite:* NURS 340, 345, 352, and 368.  
This course is a continuation of NURS 368. Emphasis is placed on continuing to advance knowledge and understanding of the relationship of drugs and their effects on humans with complex problems.
- NURS 420. Epidemiology.** (3)  
*Prerequisite:* Junior or senior standing.  
Provides students an opportunity to examine the field of epidemiology and the applications of this content to their professional disciplines.
- NURS 435. RN Transition Course II. \*** (3)  
Three hours lecture.  
*Prerequisites:* Upper division standing, NURS 330, NURS 335; Registered Nurse students.  
Focuses on application of the nursing process to provide in-depth nursing care for clients and their families. This course promotes the development of the student's ability to apply theoretical knowledge to promote, protect, and restore health across the lifespan.  
\* Signifies RN to BSN course.
- NURS 443. Nursing of Children.** (5)  
Three hours lecture; six hours practicum.  
*Prerequisites:* NURS 362, 364, 366, 368, 369.  
Focuses on normal growth and development, and evidence based nursing interventions appropriate for managing the acute and chronic care and the promotion of health for children in a variety of settings.
- NURS 444. Gerontological Nursing.** (5)  
Three hours lecture; six hours practicum.  
*Prerequisites:* NURS 340, 345, 352, 362, 368, 369.  
Focuses on the aging process to include biological, sociological, psychological, and spiritual components with clinical applications in the provision of care to older adult clients in a variety of settings, such as the community, assisted living facilities, acute care facilities, rehabilitation centers, and long-term care facilities.
- NURS 448. Nursing of the Adult II.** (5)  
Three hours lecture; six hours practicum.  
*Prerequisites:* NURS 362, 364, 366, 368, 369.  
Focuses on nursing care for adult clients with complex health problems incorporating clinical experiences in a variety of community settings. Previously gained knowledge as well as new knowledge is emphasized to promote the acutely ill client's holistic health. Theoretical knowledge and clinical application facilitate transition from student to professional nurse.

**NURS 449. Leadership in Professional Practice.\* (5)**

Three lecture hours. Six hours Practicum.

*Prerequisites: NURS 330, 335, and 444; Registered Nurse students.*

*Pre or Corequisite: NURS 362, 435.*

Focuses on leadership style, management and leadership theories, change, quality management, fiscal and economic issues, personnel management, legal and ethical issues, health care organizations and policy, professionalism, political action, and career development. The clinical component of the course will be individualized to the needs of each student in order to meet course objectives. The clinical component activities may include job shadowing, workshops, mandatory research and political events, financial planning projects, and staff development projects such as mentoring.

\* Signifies RN to BSN course.

**NURS 450. Current Problems in Nursing. (1-3)**

*Prerequisite: Upper division standing or permission of instructor.*

Explores current problems in nursing, health care and health care delivery. Depending upon the topic, this course may be used to meet requirements for the minor in Women's Studies.

**NURS 451. Community Health Nursing. (5)**

Three hours lecture; six hours practicum.

*Prerequisites: NURS 443, 444 and 448.*

Focuses on client/environment interactions incorporating clinical experiences with diverse populations in a variety of community settings and with individuals, families, aggregates, and communities. (When NURS 451 is offered in the summer, it is open to Registered Nurse students only.)

**NURS 453. Leadership in Nursing. (4)**

Four hours lecture.

*Prerequisites: NURS 443, 444, 448.*

*Corequisite: NURS 454.*

Focuses on the major leadership and professional development skills necessary for professional practice, including leadership style, management and leadership theories, change,

quality management, fiscal and economic issues, personnel management, legal and ethical issues, healthcare organizations and policy, professionalism, personal nursing philosophy, political action, career development, and historical influences on nursing today.

**NURS 454. Clinical Nursing Practicum. (4)**

Four credit hours: 12 hours practicum per week.

*Prerequisites: NURS 443, 444, 448.*

*Corequisite: NURS 451 and 453.*

Provides students with the opportunity to synthesize theoretical concepts, current research, and nursing practice skills in a selected clinical setting. Professional roles are applied through structured clinical learning experiences, and learning is facilitated through a selected clinical role model serving as preceptor to the student.

**NURS 455. Introduction to Flight Nursing. (2)**

Two hours lecture.

*Prerequisite: Permission of the instructor.*

Focuses on the theoretical knowledge of nursing care of adults and children with complex illnesses involved in air transport, including immediate stabilization and transport of the emergent patient utilizing a team approach.

**NURS 473. Emerging Therapies for Health. (3)**

Three hours lecture.

*Prerequisite: Upper division standing or permission of instructor.*

Examines therapies becoming accepted by Americans as complements or alternatives to traditional Western medical practices. Focuses on non-toxic and noninvasive approaches to achieving and maintaining wellness and healing for the body, mind and spirit.

**NURS 488. Final Honors Project. (2-3)**

*Prerequisites: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 GPA in all courses and in the School of Nursing.*

Project and the topic to be explored will be determined by the student and the faculty member with whom the student works. (Honors project may be a written or a written and

performance-based project.) In order to receive honors credit, a student must earn a grade of “A” or “B” for the final project. Course may not be repeated.

**NURS 498. Independent Study. (1-3)**

Available to nursing students in upper division. Provides opportunity to pursue an in-depth topic relevant to nursing.

See “Independent Study” p. 53 for approval procedure.

\*Denotes RN to BSN course. Upon successful completion of the RN-BSN track, RN students who have completed NURS 330, 335, 435 and 449 at RU may also receive an additional 37 credits of advanced placement resulting in a total of 51 credit hours. See p. 122 for qualifying criteria and additional information.

## NUTRITION AND DIETETICS

**NUTR 100. Introduction to Professions in Nutrition and Dietetics. (2)**

One hour lecture; two hours field experience.

*Prerequisite: Major in Nutrition and Dietetics or consent of instructor.*

Students are introduced into professions in nutrition, including educational preparation, areas of specialization and professional issues in the discipline.

**NUTR 204. Food Science and Preparation. (4)**

Two hours lecture; four hours laboratory.

*Prerequisite: Major in Nutrition and Dietetics or consent of instructor.*

Students learn the concepts related to the selection and preparation of standard food products.

**NUTR 214. Introduction to Nutrition. (3)**

Three hours lecture.

A study of the relationship of nutrition to health at various stages of life and in different lifestyles. This course has been approved for Core Curriculum credit in Health and Wellness.

**NUTR 218. Food Service Studies I: Introduction to Food Service Systems. (3)**

Three hours lecture.

Topics include history, current trends, menu development, food production and delivery systems, and physical facilities.

**NUTR 219. Food Service Studies II: Operations Management. (4)**

Three hours lecture; two hours laboratory.

*Prerequisite: NUTR 204 and 218.*

Topics include purchasing, receiving, and inventory management, food production operations management, and facility safety. The food sanitation component uses the National Restaurant Association’s Servsafe® Certification program.

**NUTR 300. Medical Terminology. (1)**

One hour lecture.

*Prerequisite: NUTR major, or permission of instructor.*

Develops language skills necessary for effective communication in the health care setting.

**NUTR 303. Nutrition Assessment. (4)**

Four hours lecture.

*Prerequisites: BIOL 322 and junior standing.*

Introduces techniques and interpretation of nutrition assessment parameters (dietary, physical, biochemical and clinical data) to determine the nutritional status, requirements and practice interventions/applications in health and disease. Students cannot receive credit for both NUTR 403 and NUTR 303.

**NUTR 304. Research Methods in Foods and Nutrition. (3)**

Three hours lecture.

*Prerequisite: BIOL 322, NUTR 316, CHEM 101 or 120, CHEM 103.*

A comprehensive overview of the research process including problem statements, literature review, research design, data collection, and interpretation of results. The course emphasizes knowledge and skills that are essential for critical evaluation of evidence based dietetic practice. Students cannot receive credit for both NUTR 404 and NUTR 304.

**NUTR 314. Community and Cultural Nutrition.** (3)  
Three hours lecture.  
*Prerequisite: NUTR 214 and 48 credit hours completed.*  
Students will study the cultural food patterns and the means of assessing and meeting nutritional needs of a community.

**NUTR 316. Nutrition in the Life Cycle I: Maternal and Child.** (3)  
Three hours lecture.  
*Prerequisite: NUTR 214, BIOL 322, and junior standing.*  
Examination of nutrition needs for pregnancy, lactation, infancy, childhood and adolescence, including normal nutrition as well as nutrition therapy for common conditions affecting these life stages. Physiological, psychological, and cultural aspects characteristic of each of these phases of the lifespan will be related to nutritional requirements and eating behaviors.

**NUTR 317. Nutrition in the Life Cycle II: Adult and Elderly.** (3)  
Three hours lecture.  
*Prerequisites: BIOL 322, NUTR 214, and junior standing.*  
Examination of nutrition needs throughout the aging process, including normal nutrition and survey of nutrition therapies for common conditions affecting the young adult through older adult. Physiological, psychological, and cultural aspects characteristic of each of these phases of the lifespan will be related to nutritional requirements and eating behaviors.

**NUTR 414: 415. Advanced Nutrition and Biochemistry I and II.** (4:4)  
Four hours lecture.  
*Prerequisite: NUTR 304, NUTR 316, NUTR 317, CHEM 103, CHEM 101 or CHEM 120, BIOL 322, BIOL 334, and senior standing.*  
Presents a detailed study of the nutrients and their role in human intermediary metabolism and physiology.

**NUTR 420. Diet Planning and Preparation.** (4)  
Two hours lecture; four hours laboratory.  
*Prerequisites: NUTR 204, NUTR 316, and NUTR 317.*  
Emphasizes food preparation and menu planning for special diets. Food science principles will be highlighted, as well as culinary and presentation skills.

**NUTR 425. Medical Nutrition Therapy I.** (4)  
Four hours lecture.  
*Prerequisites: BIOL 322, CHEM 101 or CHEM 120, CHEM 103, NUTR 300, NUTR 303, NUTR 316, NUTR 317, and senior standing.*  
The theoretical basis for diet modification in disease is integrated with knowledge of human physiology, immunology, pharmacology, and biochemistry. Students are introduced to the skills required of the professional nutrition care specialist and plan modified diets for select medical conditions.

**NUTR 426. Medical Nutrition Therapy II.** (4)  
Four hours lecture.  
*Prerequisite: NUTR 425.*  
Continuation of NUTR 425.

**NUTR 435. Nutrition Counseling and Education I.** (3)  
Three hours lecture.  
*Prerequisites: BIOL 322, CHEM 101 or CHEM 120, CHEM 103, NUTR 303, NUTR 316, PSYC 121, and senior standing.*  
Presents current best practice techniques in nutrition counseling and education, including professional issues for the Registered Dietitian.

**NUTR 436. Nutrition Counseling and Education II.** (3)  
Three hours lecture.  
*Prerequisite: NUTR 435.*  
Continuation of NUTR 435.

**NUTR 488. Final Honors Project.** (2-3)  
*Prerequisite: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 cumulative and major GPA.*

Project and the topic to be explored will be determined by student and faculty member with whom student works.

**NUTR 498. Independent Study. (1-3)**

Investigation by the student in areas of interest under the direction of an advisor. See p. 53.

## PEACE STUDIES

**PEAC 200. Introduction to Peace Studies. (3)**

Three hours lecture.

Overview of the main issues and various disciplinary approaches to the study of conflict, conflict management, and world security; introduction to alternative paradigms for conflict management and resolution; introduction to a variety of world order systems. This course has been approved for Core Curriculum credit in Global Perspectives.

**PEAC 487. Peace Studies Seminar. (3)**

Three hours seminar.

*Prerequisites: Junior or senior standing, and for non-minors, permission of instructor.*

Concentrates on a theme or themes specific to Peace Studies depending on the instructor(s). Course is cross-disciplinary and team taught. A major research paper relating to the topical interests of each student is required.

**PEAC 489. Peace Studies. (3)**

Three hours research.

*Prerequisites: Senior standing and approval of thesis proposal by PEAC Committee.*

Students research and write a senior thesis appropriate to the topical focus of their program of study, supervised by an interdisciplinary committee which may be chaired in the students' major departments.

**PEAC 498. Independent Study. (1-6)**

One to six hours of independent study.

*Prerequisites: PEAC 200 and permission of the PEAC Committee.*

## PHILOSOPHY

**PHIL 111. Introduction: Knowledge, Reality, and the Human Condition. (3)**

Three hours lecture.

Introduces students to philosophy through an examination of fundamental questions about the nature of reality, the possibility of knowledge, and the human search for meaning. By reading and discussing the work of several major philosophers, students learn to engage in careful and critical reflection on their own lives and on what it means to be a human being. This course has been approved for Core Curriculum credit in Humanities.

**PHIL 112. Introduction: Ethics and Society. (3)**

Three hours lecture.

Introduces students to philosophy through the study of ethics. Readings from major philosophers focus questions about value in human life and actions. Topics covered may include the nature of ethical reasoning and moral obligation, the value of morality to the individual and society, how ethics helps us understand our place in the universe, and how ethical ideas clarify moral problems facing society. This course has been approved for Core Curriculum credit in Humanities.

**PHIL 113. Introduction: Reasoning and Argument. (3)**

Three hours lecture.

Introduces students to basic principles of reasoning and argumentation. Students learn to distinguish between valid and invalid reasoning, to recognize patterns of deductive and inductive arguments, to understand the way evidence is used in reasoning, to construct deductive proofs, and to evaluate the soundness of arguments both in everyday contexts and in writings of some major philosophers.

**PHIL 114. Introduction: The Origins of Western Philosophy. (3)**

Three hours lecture.

Introduces students to philosophy by tracing the development of the discipline from its origins in ancient Greece to the decline of the ancient world in the 4th and 5th centuries CE. Through

an examination of the work of such thinkers as Socrates, Plato and Aristotle, students learn to engage in careful and critical reflection on both the human and the natural world and to experience the sense of wonder that animates the discipline of philosophy. This course has been approved for Core Curriculum credit in Humanities.

**PHIL 201. Medieval and Renaissance Philosophy. (3)**

Three hours lecture.

*Prerequisite: PHIL 114.*

Traces the development of Western philosophy from the end of the Roman Empire through the Middle Ages to the Renaissance and the beginnings of the modern world. Emphasis is placed on the philosophical systems of major figures such as St. Augustine and St. Thomas Aquinas.

**PHIL 213. Critical Reasoning and Argumentation. (3)**

Three hours lecture.

This course aims at advanced student skills and dispositions in critical reasoning and argumentation. It moves from review of general critical thinking competencies applicable to thinking within all domains and subjects, to the introduction and study of more domain-specific competencies in legal, moral, and scientific reasoning.

**PHIL 305. Early Modern Philosophy. (3)**

Three hours lecture.

*Prerequisite: PHIL 114.*

Traces the development of Western philosophy from Descartes in the late-16th century through Hume in the mid-18th century. Emphasis is placed on the metaphysical and epistemological systems of such major philosophers as Descartes, Leibniz, Locke, and Hume. Students who have received credit for PHIL 202 may not receive credit for PHIL 305.

**PHIL 306. Late Modern Philosophy. (3)**

Three hours lecture.

*Prerequisite: PHIL 114.*

Traces the development of European philosophy from Kant to Nietzsche. Philosophical movements including German Idealism, Positivism and 19th Century Materialism, and Existentialism will be examined. Students who have

received credit for PHIL 203 may not receive credit for PHIL 306.

**PHIL 310. Professional Ethics. (3)**

Three hours lecture.

*Prerequisite: Three hours of philosophy.*

Examines contemporary ethical issues presented by various disciplines and professions in light of ethical theories. This course will focus on ethical questions and problems that arise in a variety of professions including medicine, law, nursing, education, social work, and journalism.

**PHIL 320. Metaphysics. (3)**

Three hours lecture.

*Prerequisite: Three hours of philosophy.*

Examines basic theories of reality such as materialism, idealism, and dualism. Among the philosophical issues addressed are the following: the nature of mind, the mind-body problem, free will and determinism, the nature of space and time, and proofs concerning the existence of God.

**PHIL 330. Theories of Knowledge. (3)**

Three hours lecture.

*Prerequisite: Three hours of philosophy.*

Investigates the nature, extent, and sources of human knowledge and the relation between the concepts of knowledge, belief, and truth. Major theories which are examined include empiricism and rationalism.

**PHIL 340. Symbolic Logic. (3)**

Three hours lecture.

*Prerequisite: Three hours of philosophy or mathematics.*

This course in formal logic presents various methods and principles of symbolic logic for use in appraising arguments for validity and invalidity. Topics covered include truth tables, rules of inference, proof procedures, quantification theory, and the logic of relations.

**PHIL 350. Philosophy of Religion. (3)**

Three hours lecture.

*Prerequisite: Three hours of philosophy or religious studies.*

Examines major approaches to the philosophical understanding of religion. It investigates a

number of specific issues within contemporary philosophy of religion such as those of religious “truth, faith,” and “experience.”

**PHIL 360. Existential Philosophy. (3)**

Three hours lecture.

*Prerequisite: Three hours of philosophy.*

Detailed study of the origins and historical development of the 20th century movement in philosophy called existentialism. Through a careful reading of both literary and philosophical texts, students explore such fundamental existential themes and issues as freedom, responsibility, anguish, alienation, authenticity, and death. Special emphasis is given to major thinkers such as Kierkegaard, Nietzsche, and Sartre.

**PHIL 370. Philosophy of Language. (3)**

Three hours lecture.

*Prerequisite: Three hours of philosophy.*

Examines the contemporary philosophical focus on language. Course topics include the nature and functions of language and theories of meaning. The course will consider both the historical roots and recent developments in the area.

**PHIL 375. Philosophy of Law. (3)**

Three hours lecture.

*Prerequisite: Three hours of philosophy.*

Examines the central historical and contemporary issues in the philosophy of law. Includes an in-depth study of the central conceptual problems with philosophy of law today, the historical development of the concept of law in Western thought, and the unique issues that arise when the rule of law is envisioned on a planetary scale.

**PHIL 380. Aesthetics. (3)**

Three hours lecture.

*Prerequisite: Three hours of philosophy.*

Explores various theories and philosophical issues concerning the nature of creativity and the nature and significance of art in all of its forms. Students engage in a critical examination of such questions as these: what exactly do we mean by a “work of art?” What is beauty? What is an aesthetic experience? How are aesthetic values related to other sorts of values? What sort of truth can be found in art?

**PHIL 390. Ethical Theory. (3)**

Three hours lecture.

*Prerequisite: Three hours of philosophy.*

An in-depth examination of perennial problems and issues in ethical theory. Texts of major philosophers such as Plato, Aristotle, Aquinas, Hume and Kant are used to focus discussion of topics such as the nature of justice, happiness and the good life, duty and moral obligation, and moral virtue.

**PHIL 421. Topics in Philosophy. (3)**

Three hours lecture.

*Prerequisite: Six hours of philosophy and junior or senior standing.*

An in-depth examination of the work of one major philosopher; a single school or movement in the history of philosophy; or a particular philosophical problem, theme, or issue of contemporary interest. Emphasis is placed on the careful reading and critical discussion of primary philosophical texts. This course may be taken twice with a different topic each time.

**PHIL 488. Final Honors Project. (2-3)**

*Prerequisites: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, and minimum of 3.5 GPA in all courses and in philosophy.*

Project and topic to be determined by the student, the faculty member with whom the student works, and the department. In order to receive honors credit, the student must earn a grade of “A” or “B” for the final project. Course may not be repeated.

**PHIL 490. Philosophy Internship. (3-12)**

*Prerequisites: 18 hours of Philosophy; junior or senior standing; minimum 3.0 GPA in major; approval of the department chairperson.*

Offers an opportunity through experiential learning to apply Philosophy skills in a career-oriented atmosphere. The internship consists of a one or two semester placement with a business, governmental agency, or service organization interested in utilizing a philosophy background and critical and analytic thinking skills, research and writing skills, and knowledge of issues addressed in the study of philosophy. Grading will be on A-F basis. No more than 3

credit hours may be applied toward the requirements for the major.

**PHIL 498. Independent Study.** (1-6)  
See “Independent Study” on p. 53.

## PHYSICAL SCIENCE

**PHSC 121:122. Physical Science Processes.** (4:4)

Five hours class time per week.

Class used as laboratory, lecture, recitation, individual study. Opportunities to develop concepts and competencies in physical science.

**PHSC/PHYS 301. Meteorology.** (4)

Three hours lecture; two hours laboratory.

*Prerequisite: PHYS 111 or PHYS 221.*

Basic principles of meteorology, including earth’s atmosphere, insulation, humidity, adiabatic processes, large-scale circulation of the atmosphere, mid-altitude weather, violent weather phenomena, and climatology.

**PHSC 350. Physical Science.** (4)

Three hours lecture; two hours laboratory.

*Prerequisite: University Core B mathematics and science requirements.*

An analysis and synthesis of physical systems.

**PHSC 402. Methods of Science Teaching.** (3)

Three hours lecture.

*Prerequisites: Admission to the Teacher Education Program and a major in one or more of the sciences.*

Designed to facilitate the preparation of secondary science teachers. Students will examine and utilize various instructional strategies for teaching science in grades 9-12.

**PHSC 431. Energy and the Environment.** (3)

Three hours lecture.

*Prerequisites: PHYS 112 or PHYS 222 or PHSC 122 or CHEM 102.*

A study of energy, its many forms and uses, how it is converted from one form to another, and the environmental consequences of those conversions.

## PHSC/PHYS. 488. Final Honors

**Thesis.** (2-3)

*Prerequisites: Completion of physical science general education requirements, enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 GPA in all courses and in physical science, senior standing.*

To earn a bachelor’s degree with honors in physical science a student must conduct research and write a thesis. In order to receive honors credit, a student must earn a grade of “A” or “B” for the final thesis. Course may not be repeated.

**PHSC 490. Internship.** (1)

*Prerequisites: PHYS 111:112 or PHYS 221:222 or ASTR 111:112 or CHEM 101:102, six hours of required courses in the Physical Science major at the 300-level or above, and departmental approval.*

Application of skills and techniques learned in the classroom to real life situations. Participating students submit a program proposal to the sponsoring agency and supervising instructor. Agency may pay student for work performed. This course will be graded P/F. Students may repeat this course for a maximum of 3 credits.

**PHSC 498. Independent Study.** (1-6)

Hours and credit to be arranged in consultation with faculty member with whom the student will work on the Independent Study. For important additional information, see “Independent Study” on p. 53.

## PHYSICS

**PHYS 111:112. General Physics.\*** (4:4)

Three hours lecture; two hours laboratory.

*Prerequisite: High school mathematics.*

Vectors, mechanics, heat, electricity, magnetism, sound, light and selected topics in modern physics. These courses have been approved for Core Curriculum credit in Natural Sciences.

- PHYS 221:222. Physics.\* (4:4)**  
 Three hours lecture; two hours laboratory.  
*Prerequisite: MATH 151.*  
 Topics of PHYS 111:112 are studied utilizing calculus.  
 \*Students may not receive credit for both PHYS 111:112 and PHYS 221:222. These courses have been approved for Core Curriculum credit in Natural Sciences.
- PHYS 231. Topics in Applied Physics. (1-3)**  
 One to three hours lecture or laboratory equivalent.  
*Prerequisite: High school algebra and trigonometry.*  
 Application of the principles of physics to a specific field external to the core sciences, or treatment of a physics-based technology important in the modern world. Will not satisfy the requirements for the physics option of the physical science major or minor.
- PHSC/PHYS 301. Meteorology. (4)**  
 Three hours lecture; two hours laboratory.  
*Prerequisite: PHYS 111 or PHYS 221.*  
 Basic principles of meteorology, including earth's atmosphere, insulation, humidity, adiabatic processes, large-scale circulation of the atmosphere, mid-altitude weather, violent weather phenomena, and climatology.
- PHYS 305. Modern Physics. (4)**  
 Three hours lecture; two hours laboratory.  
*Prerequisite: PHYS 112 or 222.*  
 Introduction to modern physics, including special relativity, quantum theory, atomic and nuclear physics, elementary particles. Students cannot earn credit for both PHYS 305 and PHYS 410.
- PHYS 306. Intermediate Mechanics. (3)**  
 Three hours lecture.  
*Prerequisite: PHYS 222 and MATH 152.*  
 Study of theoretical and applied Newtonian mechanics including position and velocity dependent forces, oscillations, stability, non-inertial frames, and gravitation from extended bodies.
- PHYS 307. Electricity and Magnetism. (4)**  
 Three hours lecture; two hours laboratory.  
*Prerequisites: PHYS 222 and MATH 152.*  
 Study of electric and magnetic fields in free space and in materials, interactions of fields and charges, electromagnetic forces, Gauss' and Faraday's Law and the Maxwell Equations. The laboratory will explore basic electronics including AC and DC circuits, signal filters, op amps and circuit troubleshooting.
- PHYS 310. Optics. (4)**  
 Three hours lecture; two hours laboratory.  
*Prerequisite: PHYS 112 or 222.*  
 An intermediate course in geometrical and physical optics. Topics included are mirrors, lenses, interference, diffraction, scattering, polarization and introductory quantum optics.
- PHYS 320. Mechanics. (3)**  
 Three hours lecture.  
*Prerequisite: PHYS 222 and MATH 152.*  
 An intermediate treatment of the classical mechanics of particles, systems of particles, and rigid bodies.
- PHYS 330. Thermodynamics and Statistical Mechanics. (3)**  
 Three hours lecture.  
*Prerequisites: PHYS 112 or 222 and MATH 152.*  
 Topics in thermal physics are treated using both classical thermodynamics and statistical methods. Topics include temperature, heat, work, entropy, ideal gases, phase transitions, kinetic theory.
- PHYS/GEOL 406. Geophysics. (4)**  
 Three hours lecture; two hours laboratory.  
*Prerequisites: Either GEOL 105 or ASTR 111 and either PHYS 112 or 222 and MATH 152, or permission of instructor.*  
 Examination of the basic principles and techniques of modern geophysical methods, and the applications of these methods to site investigations for engineering and environmental geologic projects. Some Saturday laboratories may be required.
- PHYS 421:422. Electromagnetic Theory I and II. (3:3)**  
 Three hours lecture.  
*Prerequisites: MATH 152 and PHYS 112 or 222.*  
 The fundamentals of electromagnetic theory

are presented at an intermediate level. Topics covered are electrostatics, electric current, magnetic fields, the Maxwell equations, and electromagnetic radiation. The laboratory component of the course includes electrical measurements, electric currents, and basic electronics.

**PHYS 430. Quantum Mechanics. (3)**

Three hours lecture.

*Prerequisites: MATH 252, PHYS 112 or 222, and PHYS 305.*

An introduction to nonrelativistic quantum mechanics. Topics included are the Schrodinger equation, bound states, angular momentum, spin, scattering theory, and the matrix formulation.

**PHYS 441/CHEM 441. Electronics for Scientists. (3)**

Two hours lecture; four hours laboratory.

*Prerequisite: CHEM 102, PHYS 112 or 222, MATH 152.*

Introduction to analog and digital circuit design appropriate for many scientific disciplines including chemistry, computer science, physics, biology, and geology. Focus will be on analog.

**PHYS 450. Selected Topics in Physics. (3-4)**

Three hours lecture or three hours lecture and two hours laboratory.

*Prerequisites: PHYS 112 or 222 and MATH 252.*

Selected topics in advanced undergraduate physics. A specific course syllabus will be available when the course is offered. A student may take this course for credit more than once provided the topic is different each time.

**PHYS 470. Physics Reading and Research. (1)**

One hour lecture.

*Prerequisites: Three hours of PHYS or ASTR at the 300 level or above.*

Presentation and discussion of development in physics and closely-related areas in current literature.

**PHYS 481. Undergraduate Research. (1-3)**

*Prerequisites: PHYS 112 or 222 and 6 hours of PHYS courses at the 300 level or above.*

A laboratory course designed for students wishing to pursue an independent research project.

May be repeated up to a total of six semester hours.

**PHYS/PHSC 488. Final Honors Thesis. (2-3)**

*Prerequisites: Completion of physical science general education requirements, enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 GPA in all courses and in physical science, senior standing.*

To earn a bachelor's degree with honors in physical science a student must conduct research and write a thesis. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final thesis. Course may not be repeated.

**PHYS 490. Internship. (1)**

*Prerequisites: PHYS 111:112 or PHYS 221:222 and six hours of PHYS courses at the 300 level or above, and departmental approval.*

Application of skills and techniques learned in the classroom to real life situations. Participating students submit a program proposal to the sponsoring agency and supervising instructor. Agency may pay student for work performed. This course will be graded P/F. Student may repeat this course for a maximum of three credits.

**PHYS 498. Independent Study. (1-6)**

*Prerequisites: PHYS 112 or 222 and MATH 152.* See "Independent Study" on p. 53."

## POLITICAL SCIENCE

Upper-level courses are designated (AG) American Government; (CG) Comparative Government; (IR) International Relations; (PT) Political Theory; and/or (PA) Public Administration.

**POSC 110. Introduction to Politics. (3)**

Three hours lecture.

Introduces students to the concepts and methods of political science by examining enduring questions and concerns of political life using political philosophy and literature. This course has been approved for Core Curriculum credit in Humanities.

**POSC 120. Introduction to American Government.** (3)

Three hours lecture.

Introduces students to the study of American government. Philosophical foundations, constitutional development, institutions, and contemporary issues will be examined. There will be an emphasis on the continuing influence of founding principles. This course has been approved for Core Curriculum credit in Social and Behavioral Sciences or U.S. Perspectives.

**POSC 231. Comparative Government.** (3)

Three hours lecture.

*Prerequisite: POSC 110 or POSC 120.*

Gives political science majors a solid grounding in the comparative study of political regimes. Considers both the methodological issues and the principal topics involved in comparative political analysis, and introduces students to the theoretical concerns and vocabulary of this subfield of political science. Prerequisite for any 300 or 400-level comparative government class within the department, including topics courses and seminars with a comparative area studies focus. Students cannot receive credit for both POSC 130 and POSC 231.

**POSC 241. Theories of International Relations.** (3)

Three hours lecture.

Examination of the theoretical foundations of the study of international relations, including the relation of power to justice, the effects of war on the regime and the soul, the question of law among nations, the morality of war and peace, theories of international political economy, and the relation of diplomatic-strategic conduct to the question of order itself as explored by political philosophy. Required for all political science majors and foundation class for all upper-level international relations classes. Students cannot receive credit for both POSC 140 and POSC 241.

**POSC 300. Public Administration (AG, PA).** (3)

Three hours lecture.

*Prerequisite: POSC 120.*

Background of administration as a profession, principles that are helpful to the administrator, and effect of political influence.

**POSC 320. Congress (AG).** (3)

Three hours lecture.

*Prerequisite: POSC 120.*

Constitutional basis for development, organization, and role of Congress in the American political system. Analysis of Congress and formulation of public policy.

**POSC 321. The American Presidency (AG).** (3)

Three hours lecture.

*Prerequisite: POSC 120.*

Development of the presidency since the founding of America. Institutional and political problems associated with the modern chief executive.

**POSC 326. American Political Parties and Elections (AG).** (3)

Three hours lecture.

*Prerequisite: POSC 120.*

Analysis of origins, development, and current state of American political parties. Emphasis on the role of parties in the electoral process; voting behavior and public opinion; presidential and congressional elections. (Students who have received credit for either POSC 325 or 426 cannot also receive credit for POSC 326).

**POSC/COMS 327. Politics and the Media (AG).** (3)

Three hours lecture.

*Prerequisite: POSC 120.*

Modern mass media as actors in the political arena, with an emphasis on how elections and policy-making are affected by the mass media.

- POSC 330. State and Local Government (AG).** (3)  
Three hours lecture.  
*Prerequisite:* POSC 120.  
Governmental institutions and processes, political parties, voting at state and county levels.
- POSC 331. Urban and Metropolitan Politics (AG).** (3)  
Three hours lecture.  
*Prerequisite:* POSC 120.  
Development of urban government and impact of its politics; attention to roles of formal and informal actors on urban and metropolitan scene.
- POSC 333. Judicial Process (AG).** (3)  
Three hours lecture.  
*Prerequisite:* POSC 120.  
American government. Emphasis on political nature of judicial decisions.
- POSC 335. American Public Policy. (AG, PA).** (3)  
Three hours lecture.  
*Prerequisite:* POSC 120.  
Examination of policy-making process and approaches to issues in American government; emphasis on role of informal influences as opposed to function of elected and appointed officials.
- POSC 337. United States and Virginia Government (AG).** (3)  
Three hours lecture.  
*Prerequisites:* POSC 120.  
In-depth overview of national and local political institutions and fundamental principles of American government. The political science department sees this class as essential to any social science major interested in preparing to teach at the secondary level. It is especially appropriate for those seeking certification in Social Studies and Government and includes assessment opportunities suitable for inclusion in their professional portfolios.
- POSC 341. Western European Government and Politics. (CG).** (3)  
Three hours lecture.  
*Prerequisite:* POSC 231.  
Political structures and functioning of selected Western European political systems. Emphasis
- on such major powers as the United Kingdom, France, and Germany and on the European Union and the prospects for continuing political integration.
- POSC 350. U. S. Foreign and Defense Policy (IR).** (3)  
Three hours lecture.  
*Prerequisite:* POSC 241.  
Surveys the development of the relationship of American foreign policy and its corollary, American strategy, from the perspective of political philosophy. Assuming that strategy is the continuation of politics by other means, POSC 350 raises questions about the relation of American regime principles to the diplomacy and strategy that implement these principles in the international milieu.
- POSC 360. International Law and Organization (IR).** (3)  
Three hours lecture.  
*Prerequisite:* POSC 241.  
Law and organization in an anarchic milieu of sovereign states. Emphasis on theoretical foundations and historical evolution.
- POSC 370:371:372. History of Political Philosophy (PT).** (3:3:3)  
Three hours lecture.  
*Prerequisite:* POSC 110.  
First Semester: Development of Western political philosophy from ancient Greece through medieval period. Second Semester: Machiavelli through early modern period. Third Semester: Hegel to the present. Emphasis on reading primary sources. Discussion of major schools of thought and interpretation of politics.
- POSC 390. Topics In Political Science (AG, PA, IR, CG, PT, depending on course topic).** (3)  
Three hours lecture.  
*Prerequisite:* Junior or senior standing, and POSC major, or permission of instructor.  
Detailed study of a topic in political science. May be taken twice for credit with a different topic each time.

**POSC 432. Public Organization Theory and Leadership. (3)**

Three hours lecture.

*Prerequisite: POSC 300 or permission of instructor.*

Focuses on transformational leadership theories, the impact of leadership on organizational behavior/culture, and public sector revitalization in order to examine the role of (visionary) leadership in the redesign of public organizations to: (a) “fit” or become congruent with their turbulent operating environment(s); (b) enhance efficiency outcomes; and (c) fulfill their legislative, judicial, and/or political mandate. Students who have received credit for POSC 430 or POSC 431 cannot also receive credit for POSC 432.

**POSC 435. Contemporary Problems in Public Administration. (AG, PA). (3)**

Three hours lecture.

*Prerequisite: POSC 300.*

Developments in public finance, budgeting and personnel; trends in representative bureaucracy, regulation, regional administration.

**POSC 438. Constitutional Law: Governmental Powers (AG). (3)**

Three hours lecture.

*Prerequisite: POSC 120.*

Constitutional powers exercised by federal government; emphasis on intergovernmental relations, separation of powers, role of the Supreme Court in constitutional process and general theories of constitutional government.

**POSC 439. Constitutional Law: Civil Liberties (AG). (3)**

Three hours lecture.

*Prerequisite: POSC 120.*

Theoretical bases, popular support, judicial interpretation, and role of civil liberties in the United States.

**POSC 445. Government and Politics in the Developing World (CG). (3)**

Three hours lecture and discussion.

*Prerequisite: POSC 231.*

Analysis of processes, problems, and prospects of modernization in underdeveloped areas of the world. Asian, African, and Latin American countries used as examples.

**POSC 458. Force in International Relations (IR). (3)**

Three hours lecture.

*Prerequisite: POSC 241.*

An intensive study of the use of force in international relations and its effect on regimes and the soul. Themes include the classical perspective on force, just war theory, pacifism, empire maintenance and decay, and force and world order.

**POSC 461. Government and Politics of Latin America (CG). (3)**

Three hours lecture.

*Prerequisite: POSC 231.*

An introduction to Latin American politics that focuses on enduring themes and contemporary politics in selected countries.

**POSC 463. International Political Economy (IR). (3)**

Three hours lecture.

*Prerequisite: POSC 241.*

Analysis of the political impact of economic relationships among nation-states and between nation-states, subnational organizations, and supranational organizations. Topics covered include international trade, international monetary relations, imperialism, dependency, multinational corporations and the politics of natural resources.

**POSC 474. American Political Thought (AG, PT). (3)**

Three hour lecture.

*Prerequisites: POSC 110 and POSC 120.*

Examines the thought of the American founders, the principles of the constitutional order, and the evolution of American political thought over more than two centuries. Emphasis on original sources in the thought of American statesmen, political activists and dissenters, and intellectuals. Students who have received credit for POSC 472 or POSC 473 cannot also receive credit for POSC 474.

**POSC 485. Internships in Political Science and Public Administration. (3-15)**

*Prerequisites: Junior or Senior standing; 2.5 in political science; 2.0 cumulative university GPA; departmental approval. Must be POSC major or minor.*

Only three hours may be applied toward requirements for the major or minor. This course will allow students to integrate concepts developed in classroom experiences and relevant readings in the theory of political science and public administration with the practice of these concepts in public and private agencies, organizations, and institutions.

**POSC 488. Final Honors Project (AG; CG; IR; PA; PT: as designated). (2-3)**

*Prerequisites: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 GPA in all courses and in political science.*

Project and the topic to be explored will be determined by the student, the faculty member with whom the student works, and the department. (Honors project may be a written or a written and performance-based project.) In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

**POSC 490. Seminar (AG; CG; IR; PA; PT; as designated). (3)**

Three hours lecture and discussion.

*Prerequisites: Successful completion of appropriate 100- or 200-level course or permission of the instructor.*

Analysis of a particular problem or issue in political science or contemporary politics. May be repeated as topics change. Depending upon the topic, this course may be used to meet requirements for the minor in Appalachian Studies.

**POSC 491. Scope and Methods in Political Science. (PT). (3)**

Three hours lecture.

*Prerequisites: POSC 110, and junior or senior standing.*

Introduction to professional study; focus on conceptual approaches to study of political science, various contemporary schools of

thought and methodology. Primary work in research methods as appropriate to the various subfields of the discipline.

**POSC 498. Independent Study. (AG; CG; IR; PA; PT: as designated) (1-3)**

*Prerequisites: 18 hours of political science, and permission of instructor.*

Students must obtain approval from department on proposed program in semester preceding that in which independent study is anticipated. Course may carry one to three hours credit a semester and may be repeated up to six semester hours, but a maximum of three hours may be counted toward completion of any concentration requirements. Offered as required. See "Independent Study" on p. 53.

## PSYCHOLOGY

**PSYC 121. Introductory Psychology. (3)**

Three hours lecture.

Introduces students to the scientific study of behavior. Topics include essential concepts in brain function, emotion, cognition, learning, personality, social behavior, abnormal psychology, the methods used to generate psychological knowledge, and application of this knowledge in a variety of settings. This course has been approved for Core Curriculum credit in Social and Behavioral Sciences.

**PSYC 218. Adolescent Psychology. (3)**

Three hours lecture.

*Prerequisite: PSYC 121.*

Emotional, social, physical, personality and cognitive aspects of human development in adolescence. Students cannot receive credit for both PSYC 318 and PSYC 218.

**PSYC 222. Orientation to the Psychology Major. (1)**

One hour lecture.

*Prerequisites: Psychology major; recommended for majors with less than 18 hours of PSYC courses.*

Introduces students to psychology as it is practiced in academic and professional settings,

with the goal of enhancing students understanding of career possibilities in the field. Students will also learn how to manage their undergraduate psychology education to prepare for careers related to psychology.

**PSYC 230. Lifespan Developmental Psychology.** (3)

Three hours lecture.

*Prerequisite: PSYC 121.*

Will contribute to an understanding of the physical, social, emotional, and intellectual development of people throughout the lifespan. Areas of development that will be covered include motoric and perceptual skill development, social/emotional and personality development, linguistic and intellectual development from conception through old age. This course will not substitute for PSYC 317 as a Psychology social science core class.

**PSYC 250. Psychology of Diversity.** (3)

Three hours lecture.

*Prerequisites: PSYC 121.*

Provides an overview of the psychology of race/ethnicity, sex/gender, and minority groups in a multicultural context. This course will cover issues of psychological development, mental health, sex/gender, and power inequity within minority groups residing in North America, including but not limited to: African-Americans, Hispanic/Latino Americans, American Indians, and Asian Pacific Islanders. It provides a means of critical analysis and integration of diverse perspectives that exist within contemporary psychology. Major emphasis will be on developing an understanding of the variation within and between racial/ethnic groups; psychological issues relevant to women and their minority or out-group status; psychological issues or regarding gender within minority groups; and the psychological processes that underlie the perpetuation of group conflict and inequity and the multicultural approach to confronting these issues. Students cannot receive credit for both PSYC 350 and PSYC 250. This course may be used to meet requirements for the minor in Women's Studies.

**PSYC 282. Consumer Psychology.** (3)

Three hours lecture.

*Prerequisite: PSYC 121.*

Study of relationship between organizations that provide goods and services and individuals who receive them; emphasis on research findings which help consumers derive greater satisfaction and pleasure from the products they consume. Students cannot receive credit for both PSYC 382 and PSYC 282.

**PSYC 301. Analysis of Psychological Data.** (3)

Two hours lecture; two hours laboratory.

*Prerequisite: PSYC 121.*

*Pre- or corequisite: STAT 200 or permission of the instructor.*

Introduces students to the major methods and techniques employed in the analysis of behavioral data, including descriptive statistics, graphing, measures of the degree of association between variables, and techniques in statistical inference. During the laboratory portion of the class students will (a) complete exercises that provide hands-on experience with concepts presented in lecture and (b) analyze data addressing empirical questions in a variety of areas in psychology. Students may not receive credit for PSYC 301 after passing PSYC 201.

**PSYC 302. Research Methods in Psychology.** (3)

Two hours lecture; two hours laboratory.

*Prerequisite: PSYC 301.*

Introduces students to the major methods and techniques employed in psychological research, including descriptive, correlational, and experimental approaches to empirical research. During the laboratory portion of the class, students will design and conduct empirical research projects, analyze data from those projects, and write reports describing the research in American Psychological Association (APA) format. Students may not receive credit for PSYC 302 after passing PSYC 202.

**PSYC 317. Child Psychology. (SS Core) (3)**

Three hours lecture.

*Prerequisite: PSYC 121.*

Motor, perceptual, linguistic, social and intellectual aspects of human development from conception through middle childhood. Fulfills one of the Social Sciences core requirements for the psychology major and minor.

**PSYC 320. Introduction to Cognitive Psychology (NS Core). (3)**

Three hours lecture.

*Prerequisites: PSYC 121.*

A survey of human cognitive psychology. Topics include attention, perception, memory, mental imagery, language and reading, problem-solving, and decision making. This course satisfies one of the Natural Science core requirements for the psychology major and minor.

**PSYC 333. Principles of Learning (NS Core). (3)**

Three hours lecture.

*Prerequisite: PSYC 121.*

An introduction to fundamental principles, processes, and theories of experimental and applied learning. Topics may include classical and operant conditioning, observational learning, social learning, choice and matching, language, and animal cognition. Examines current applications of learning theory in applied settings, such as behavior modification and treatment of psychological disorders. This course fulfills one of the Natural Science core requirements for the psychology major and minor.

**PSYC 343. Social Psychology (SS Core). (3)**

Three hours lecture.

*Prerequisite: PSYC 121.*

Study of the effects of others on the behavior of individuals, including social perception, attitude change, attraction and conformity, as well as the structure and behavior of groups, including leadership, competition and decision making. Fulfills one of the Social Sciences core requirements for the psychology major and minor.

**PSYC 347. Environmental Psychology. (3)**

Three hours lecture.

*Prerequisite: PSYC 121.*

Covers topics related to the interrelationship between human behavior and experience, and the built and natural environment.

**PSYC 353/BIOL 353. Comparative Behavior. (3)**

Two hours lecture; two hours laboratory.

*Prerequisites: PSYC 121 and either BIOL 103 or BIOL 131.*

Study of animal behavior from viewpoints of zoology, ethology and comparative psychology. Topics may include, but are not limited to, animal sensory capacities, motor capabilities and coordinating mechanisms; classification of behavioral traits; analysis of instinctive behavior, learned behavior, social behavior, animal communications and evolutionary significance of social organization.

**PSYC 361. Psychology of Personality (SS Core). (3)**

Three hours lecture.

*Prerequisite: PSYC 121.*

Introduction to descriptions, dynamics and determinants of personality. The major theories of personality are discussed and compared. Fulfills one of the Social Science core requirements for the psychology major and minor.

**PSYC 377. Introduction to Sensation and Perception (NS Core). (3)**

Three hours lecture.

*Prerequisite: PSYC 121.*

An introduction to the basic concepts and theories of sensory and perceptual psychology. Selected areas of application to everyday life will also be included. Fulfills one of the Natural Sciences core requirements for the psychology major and minor.

**PSYC 378. Brain and Behavior (NS Core). (3)**

Three hours lecture.

*Prerequisites: PSYC 121.*

Examines the brain and its role in mediating behavior and psychological processes in humans and other animals. Topics to be covered include

neuronal functioning and communication, structure of the nervous system, common neurological disorders, neural bases of perception and action, learning, memory and cognition, motivation, and biological foundations of psychological disorders. Fulfills one of the Natural Sciences core requirements for the psychology major and minor.

**PSYC 381. Psychology of Work Behavior. (3)**

Three hours lecture.

*Prerequisite: PSYC 121.*

Study of human behavior in relation to personnel, worker motivation, satisfaction, efficiency, work training, leadership and organizational communications.

**PSYC 387. Sport Psychology. (3)**

Three hours lecture.

*Prerequisite: PSYC 121.*

Provides students with an opportunity to learn about the application of psychology in a specific context (i.e., sport and exercise). Students will be exposed to theoretical perspectives, applications, and research methods used to examine individuals participating in sport and exercise. Students will be expected to write, discuss, and apply psychological principles to individuals participating individually in sport and/or exercise or in team settings.

**PSYC 391. Psychology of Women. (3)**

Three hours lecture.

*Prerequisite: PSYC 121.*

Investigates changing roles of women, and the factors of education, intelligence, personality, physical characteristics and socialization that contribute to these roles. This course may be used to meet requirements for the minor in Women's Studies.

**PSYC 393. Psychology of Human Sexuality. (3)**

Three hours lecture.

*Prerequisite: PSYC 121.*

Students will study psychological theory regarding human sexuality. They will develop research skills in order to be informed consumers of sex research, to think critically about arguments proposed in the field of

sexology using psychological theories, to identify their values and beliefs surrounding sexuality, and to develop knowledge and skills surrounding social justice and human sexuality. This course may be used to meet requirements for the minor in Women's Studies.

**PSYC 401. Psychology of the Exceptional Child. (3)**

Three hours lecture.

*Prerequisite: PSYC 317.*

Gives students an understanding of children who are different intellectually, behaviorally, socially and physically from the average child, as well as an understanding of the ecology of an exceptional child; provides student with some knowledge of special needs and techniques used in the assessment of and education of such individuals as well as information about capacities and abilities.

**PSYC 405. Forensic Psychology. (3)**

Three hours lecture and discussion.

*Prerequisite: PSYC 121.*

Course provides a survey of the forensic psychology areas. Topics will include aggression, serial killers, jury psychology, eyewitness testimony, detecting deception, insanity plea, hostage negotiation, and critical incident counseling.

**PSYC 415. Evolutionary Psychology. (3)**

Three hours lecture.

*Prerequisites: PSYC 121.*

Application of evolution theory to understanding human behavior, including the topics of learning, intelligence, mating strategies and gender differences, kinship and social interaction, motivation, emotion, health, and psychopathology.

**PSYC 420. Research in Cognitive Psychology. (3)**

Two hours lecture; two hours laboratory.

*Prerequisites: PSYC 302, 320.*

An examination of scientific versus pseudoscientific approaches to knowing, and an emphasis on real-world memory, decision-making, and general cognitive processes.

- PSYC 429. Maturity and Aging.** (3)  
Three hours lecture.  
*Prerequisite: PSYC 121.*  
Examines aging process and resultant changes in psychomotor skills, learning, thinking and intelligence, employment and productivity, personality, maladjustment and life review.
- PSYC 434. Research in Learning.** (3)  
Two hours lecture; two hours laboratory.  
*Prerequisites: PSYC 302, 333.*  
An empirical and theoretical survey of the major areas in the psychology of learning. Data from both animal and human experiments discussed from varying points of view. Requires student to design an experimental project, construct apparatus as needed, collect data, analyze data and submit a report in the American Psychological Association (APA) format. Fulfills lab course requirement.
- PSYC 439. Abnormal Psychology (SS Core).** (3)  
Three hours lecture.  
*Prerequisite: PSYC 121.*  
Study of abnormal psychology that emphasizes the history, major perspectives and Diagnostic and Statistical Manual III-R categories. Fulfills one of the Social Sciences core requirements for the psychology major and minor.
- PSYC 440. Abnormal Child Psychology.** (3)  
Three hours lecture.  
*Prerequisite: PSYC 121.*  
Provides a survey of the most common childhood and adolescent psychological disorders. Topics will include theories of abnormal psychological development, current classification (DSM) and assessment techniques, and treatments.
- PSYC 443. Research in Social Psychology.** (3)  
Two hours lecture; two hours laboratory.  
*Prerequisites: PSYC 343, PSYC 301, and PSYC 302.*  
Students will directly study the effects of others on the thoughts, feelings, and behavior of individuals. Students will become familiar with empirical investigations of specific topics in social psychological research, and will be required to conduct research and submit a research report
- in American Psychological Association (APA) format.
- PSYC 445. Psychological Tests and Measurements.** (3)  
Three hours lecture.  
*Prerequisites: PSYC 301 and junior, senior or graduate standing.*  
Foundations and methodologies of psychological testing, including achievement, ability, interest and personality assessment; problems, issues, developments and future prospects in psychological assessment. Students research, administer, score, interpret and report results of selected psychological tests.
- PSYC 461. Research in Personality.** (3)  
Two hours lecture, two hours laboratory.  
*Prerequisites: PSYC 302, 361.*  
Examines scientific investigations of various aspects of human personality, including development, change, and characteristics. Students will become familiar with empirical investigations of specific topics in personality research, and will be required to conduct their own research project and to submit a research report in American Psychological Association (APA) format. Fulfills lab course requirement.
- PSYC 470. History and Systems of Psychology.** (3)  
Three hours lecture.  
*Prerequisites: PSYC 121 and junior or senior status as a psychology major or minor.*  
Develops understanding of history of thought as it relates to the field of psychology. Centers on significant issues which have persisted through history and the methods used by great men and women in their efforts to grapple with these issues. Deals with the systems of psychology and contemporary theories.
- PSYC 477. Research in Sensation and Perception.** (3)  
Two hours lecture; two hours laboratory.  
*Prerequisites: PSYC 302, 377.*  
An introduction to research methods and experimental investigations in sensory and perceptual psychology. Meets the lab course requirement for psychology majors.

**PSYC 478. Research in Physiological Psychology. (3)**

Two hours lecture; two hours laboratory.

*Prerequisites: PSYC 302, 378.*

Survey of the structure and functions of the nervous and endocrine systems in controlling and organizing various psychological events and processes. These include perception and movement, emotion, motivation, memory, language and consciousness and clinical uses of physiological psychology. The laboratory is designed to introduce the student to various scientific ways of studying the relationships between physiology and behavior. Fulfills lab course requirement.

**PSYC 480. Human Neuropsychology. (3)**

Three hours lecture.

*Prerequisites: PSYC 121 and senior standing or permission of instructor.*

Disorders and diseases of the human brain will be examined to familiarize students with the causes, consequences, and treatment of brain disorders, and to illuminate the role of the brain in normal psychological functioning. Students will learn about the structure and function of the nervous system, causes of brain damage, common neuropsychological disorders and syndromes, disorders of brain function in children and adults, and assessment and rehabilitation of brain function.

**PSYC 488. Final Honors Project. (2-3)**

*Prerequisites: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum of 3.5 GPA in all courses and in psychology.*

Project and topic to be determined by the student, the faculty member with whom the student works, and the department. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project.

Course may not be repeated.

**PSYC 490. Seminar in Psychology. (1-3)**

Three hours lecture.

*Prerequisite: PSYC 121.*

Presentation and discussion of current issues in psychology.

**PSYC 491. Research Lab: Special Topics. (3)**

Two hours lecture; two hours laboratory.

*Prerequisites: PSYC 302 and permission of instructor.*

Will expose the psychology student to research in a particular area of interest which may not be addressed in any of the other research lab courses offered by the psychology department faculty. It will allow students to have an in-depth exposure to a specific research topic, through lecture, discussion, and empirical investigation. Students will be required to conduct a research project and to submit a research report in APA format. This course will count as meeting the lab requirement for the major.

**PSYC 498. Independent Study. (1-6)**

See "Independent Study" on p. 53.

**PSYC 499. Internship. (3-12)**

*Prerequisites: Must have a psychology major, a minimum of 75 semester hours credit with at least 18 hours of psychology credits and a GPA of 3.0 overall and 3.2 in the major. Students also must have completed the series of "Success Seminars" conducted by the Center for Experiential Learning.*

Full- or part-time placement in a professional setting to provide students with appointed experience relative to their interests and goals. Supervision will be provided by both internship site personnel and university faculty, and will include weekly on-site and scheduled campus-based seminars. Permission by the internship committee required for enrollment. Graded pass-fail.

**RECREATION, PARKS AND TOURISM**

**RCPT 112. Activity Leadership and Analysis. (3)**

Three hours lecture.

*Prerequisite: Major in RCPT or permission of chairperson.*

Survey of recreation activities through the fun of participation and practice of acceptable leadership

techniques in play situations. Effects of outside dynamic forces on various recreation activities.

**RCPT 200. Leisure in Contemporary Society.** (3)

Three hours lecture.

*Prerequisite: Freshman or sophomore standing; or permission of chairperson.*

Examines the growth and development of leisure as an industry and the importance of leisure experiences in the lives of individuals. Emphasis is on understanding the physical, psychosocial, economic, political, and experiential aspects of leisure. This course has been approved for Core Curriculum credit in Health and Wellness.

**RCPT 210. Introduction to Recreation, Parks and Tourism.** (3)

Three hours lecture.

*Prerequisite: RCPT major or permission of chairperson.*

Studies significance and impact of recreation, parks and tourism on American lifestyles. Examines the history, philosophy and scope of the field of recreation, parks and tourism, including the roles of professionals. Students are required to do the learning in a recreation setting.

**RCPT 230. Introduction to Outdoor Recreation.** (3)

Three hours lecture.

*Prerequisites: Major in RCPT or permission of chairperson.*

Broad overview of the field of outdoor recreation. Emphasis is placed on land management agencies and strategies used by resource managers. Social and environmental issues that impact on land management policy are discussed.

**RCPT 235. Camp Counseling.** (3)

Three hours lecture.

Introduction to the role of counselors in relation to the objectives, organization, guidance, leadership skills and programming in organized camps.

**RCPT 313. Program Planning in Recreation, Parks and Tourism.** (3)

Three hours lecture.

Focuses on essential elements and basic principles in the development, implementation and evaluation of recreation programs. Emphasis on planning, conducting, and evaluating programs in recreation, parks and tourism. May not receive credit if previously have taken RCPT 215.

**RCPT 314. Recreation Workshop.** (3)

Two hours lecture; four hours laboratory.

*Prerequisites: RCPT 112, 210 and 313.*

Students will simulate a park and recreation department. Programs will be planned, financed, coordinated, conducted, and evaluated for different groups throughout the community. Students are evaluated on their ability to deliver program services to different constituent groups, and well as their own ability to develop collaborative relationships.

**RCPT 317. Adventure Programming.** (1-3)

Two hours lecture; two hours laboratory.

*Pre- or corequisite: RCPT 112 or permission of chairperson.*

Focuses on the design, implementation and leadership of adventure activities and programs. The course involves weekly labs and some weekend field experiences in selected adventure activities. Field trips required.

**RCPT 319. Introduction to Recreation Therapy.** (3)

Three hours lecture.

*Prerequisites: RCPT 112 and RCPT 210.*

Provides knowledge of the theories and concepts of therapeutic recreation, leisure, social psychology, and human development as related to the nature and scope of health and human service delivery systems and the ability to integrate these in a variety of settings. Also provides an essential knowledge of the diversity of the populations including diagnostic groups served, including etiology, symptomatology, prognosis, treatment of conditions and related secondary complications. Students cannot receive credit for both RCPT 219 and RCPT 319.

**RCPT 326. Leisure and the Aging Process. (3)**

Three hours lecture.

Considers a broad range of topics associated with the role of recreation and the aging process, including the use of activities as a therapeutic intervention in furthering the quality of life experiences as one grows older. Consideration is also given to community and institutionally oriented program planning and evaluation throughout the leisure service delivery process.

**RCPT 328. Design and Maintenance of Recreation, Parks and Tourism Resources. (3)**

Three hours lecture.

*Prerequisite: Major in RCPT or permission of chairperson.*

Emphasizes planning principles and procedures in acquiring, developing, maintaining and providing for maximum return of use from parks and related recreation facilities. It focuses on technical design aspects of recreation facilities and maintenance principles needed for upgrading new and/or existing facilities.

**RCPT 331. Outdoor Living Skills. (3)**

Three hours lecture/ laboratory.

*Prerequisite: Major in RCPT or permission of chairperson.*

Lab and field experiences in camping, backpacking, and orienteering. An emphasis is placed on environmental ethics, education, and philosophy. Field trips required.

**RCPT 336. Research and Technology Applications in Recreation, Parks and Tourism. (3)**

Two hours lecture; two hours laboratory.

*Prerequisites: RCPT 210 and RCPT 313.*

Prepares students for research and evaluation in recreation, parks and tourism. Computer skills and/or applicable technology will be used to conduct a research project during the semester. Instruction is related to applied research projects including statistical analysis and how computer applications can be used to enhance assessment, management, evaluation and program delivery. Students cannot receive credit for both RCPT 336 and RCPT 436.

**RCPT 340. Processes in Recreation Therapy. (3)**

Three hours lecture.

*Prerequisites: RCPT 112 and RCPT 210; or permission of the chairperson.*

Provides a fundamental knowledge of the recreation therapy process and how it is influenced by diversity and social environment. Provides a fundamental knowledge of assistive devices/equipment, activity modification techniques, group interactions, leadership, and safety.

**RCPT 342. Assessment in Recreation Therapy. (3)**

Two hours lecture; two hours laboratory.

*Prerequisites: RCPT 313, RCPT 319, RCPT 340; or permission of the chairperson.*

*Corequisite: RCPT 340.*

Provides a thorough understanding of the assessment process utilized within recreation therapy practice. Also provides a general understanding of current therapeutic recreation/leisure assessment instruments, inventories and questionnaires, and other sources of commonly used multidisciplinary assessment tools including standardized measures, selection of instrumentation, general procedures for implementation, and the interpretation of findings.

**RCPT 344. Program Design and Evaluation in Recreation Therapy. (3)**

Two hours lecture; two hours laboratory.

*Prerequisite: RCPT 340.*

Provides detailed knowledge of the intervention planning process, including program or treatment plan design and development, programming considerations, types of programs, nature and scope of interventions, and selection of programs to achieve the assessed needs and desired outcomes of the person served.

**RCPT 350. Commercial Recreation. (3)**

Three hours lecture.

*Prerequisites: RCPT 112, and 210 or permission of instructor or chair.*

Introduction to the fundamentals and principles of commercial recreation as a field of service, including delivery of goods, services, amenities, facilities, entrepreneurship and trends in commercial recreation, parks and tourism.

- RCPT 363. Special Events.** (3)  
*Three hours lecture.*  
*Prerequisites: RCPT 313 or permission of instructor or chair.*  
 Provides a solid understanding of the numerous tasks and details involved in developing and coordinating a special event. Application of creativity to develop events with unique purposes and presentations combining elements such as site selection, décor, lighting, sound, and entertainment, as well as food and beverage to reflect the theme of the event. Field trips required.
- RCPT 365. Legal Liability and Risk Management.** (3)  
*Three hours lecture.*  
*Prerequisites: RCPT 210 and RCPT 313, or permission of chairperson.*  
 Legal issues relating to park and recreation administration and programming, risk management planning and implementation in park and recreation settings.
- RCPT 413. Professional Issues in Recreation, Parks and Tourism.** (3)  
*Three hours lecture.*  
*Prerequisites: Must have completed 86 semester hours, have a minimum 2.1 cumulative GPA and a minimum 2.5 major GPA*  
 Focuses on various professional concerns relative to recreation delivery. Emphasis given to internship/employment preparation, concept of a profession and professional organization, ethical principles and professionalism, and trends and issues in recreation, parks and tourism.
- RCPT 417. Seminar in Recreation, Parks and Tourism; Topical.** (1-4)  
*Prerequisite: Junior standing.*  
 Hours and credit to be arranged.  
 Intensive inquiry into a specific topic (i.e., urban or rural recreation, rock climbing, outdoor leadership, project adventure). Students may repeat course for maximum of six hours credit.
- RCPT 421. Ropes Course Programming.**(3)  
*Three hours lecture/laboratory.*  
*Pre- or corequisite: RCPT 112, 210 and 313, and permission of the instructor.*  
 Students learn and apply the technical, safety, leadership and facilitation skills essential to safe and effective ropes course programming. Emphasis is given to understanding the theoretical underpinnings of ropes course philosophy. A five-day training workshop is a required component of this course.
- RCPT 423. Recreation Administration.** (3)  
*Three hours lecture.*  
*Prerequisite: RCPT 112, 210 and 313 or permission of chairperson.*  
 Introduction to the administration of recreation, parks and tourism. Emphasis on fiscal management, personnel management, organizational structure, marketing techniques and legal foundations in recreation, parks and tourism departments.
- RCPT 424. Advanced Recreation Administration.** (3)  
*Three hours lecture.*  
*Prerequisite: RCPT 423.*  
 Theory and practice of successful administrative techniques in the profession including human relations, communications, personnel management, legal aspects, effective time management, and the supervisor as a teacher. (Student cannot receive credit for RCPT 424 and RCPT 422.)
- RCPT 425. Ethical Issues in Recreation, Parks and Tourism Management.** (3)  
*Three hours lecture.*  
*Prerequisites: RCPT 314, senior standing, or permission of chairperson.*  
 Covers issues that influence recreation, parks and tourism management such as current trends, ethical principles, professionalism, conflict management, and the politics of organizations. Case studies and role playing activities are incorporated in the course.
- RCPT 431. Sustainable Tourism.** (3)  
*Three hours lecture.*  
*Prerequisite: Junior or senior standing.*  
 Focuses on the nature of sustainability to preserve local, regional, national and international destinations, through planning, operation and evaluation of sustainable tourism attractions, both natural and man-made. Evaluates the impact of global issues on tourism and hospitality operators, organizations, and destinations. Investigates and analyzes how the

tourism industry is influenced by governments and world affairs, and understands the role of tourism and hospitality professionals as global citizens in communities.

**RCPT 435. Tourism and Event Marketing. (3)**

Three hours lecture.

*Prerequisites: RCPT 210 and RCPT 313, or permission of instructor.*

An overview of marketing as applied to the tourism and events industries, including but not limited to: service marketing; customer service, promotion and publicity development, understanding consumers and consumer behavior, target marketing, development, and uses of social media.

**RCPT 441. Advanced Ropes Course Programming. (3)**

Three hours lecture/laboratory.

*Prerequisite: RCPT 421 or permission of instructor or chair.*

Students will practice advanced facilitation, leadership, technical and safety skills essential to ropes course programming. A five-day training workshop and fifteen (15) hours of service learning are required components of the course.

**RCPT 445. Professional Advancement in Recreation Therapy. (3)**

Three hours lecture.

*Prerequisite: RCPT 340.*

Provides ability to identify and understand components of professional competency within the realm of recreation therapy practice, including requirements for certification, ethical practice, public relations, and general advancement of the profession. Also provides a broad understanding of organization and management of recreation therapy services and a basic understanding of published standards of practice and the influence that such standards have on the program planning process.

**RCPT 470. Internship. (12)**

40 hours per week for 14 weeks, 560 hours total.

*Prerequisites: A minimum 2.1 grade point average in overall work and a 2.5 in the major; RCPT 112, 210, 313, 314, 413 and 423. In addition, student must be in the process or have completed the*

*courses within his/her concentration, and must have permission of the chairperson.*

Provides maximum opportunity to participate in professional laboratory experiences as a recreation professional.

**RCPT 476. Wilderness Institute. (9)**

Lectures, labs and field trips integrated into an intensive, heavily experiential primarily off-campus course.

*Prerequisite: Permission of instructor.*

Incorporates a broad overview of the field of outdoor recreation. Emphasis is placed on land management agencies and the social and environmental issues that impact on management policy. This course involves skill acquisition and practical field experiences in hiking, orienteering, camping, backpacking, rock climbing, caving, ropes coursing and/or paddling.

**RCPT 480. Global Exchange in Recreation, Parks and Tourism. (1-9)**

*Prerequisite: Permission of the RCPT Department Chair four-weeks prior to travel.*

A unique, experiential examination of tourism management, travel and tourism marketing, and related global issues accomplished through study abroad. May be repeated for credit.

**RCPT 481. Tourism Institute. (9)**

Lectures, labs and field trips integrated into an experiential, primarily off-campus, course.

*Prerequisite: Permission of instructor.*

An overview of the field of tourism, with emphasis placed on tourism development, destination management/marketing organizations, and the social and environmental issues that impact management policy. This course involves networking with professionals, touring facilities, and practical field experiences in areas such as tourism marketing, commercial recreation operations, customer service, and government operations.

**RCPT 488. Final Honors Project. (2-3)**

*Prerequisites: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 GPA in all courses and in the Department of Recreation, Parks and Tourism. Project and the topic to be explored will be determined by the student and the faculty member with*

whom student works. Honors project may be a written or a written- and performance-based project. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

**RCPT 498. Independent Study. (1-4)**

Hours and credit to be arranged.

*Prerequisites: Senior standing; permission from a departmental faculty member, who will supervise the project, must be obtained one semester prior to semester in which student enrolls in course.*

Offers opportunity to pursue in-depth a topic relevant to the recreation, park, and tourism field.

## RELIGIOUS STUDIES

**RELN 111. Introduction to Religion. (3)**

Three hours lecture.

Presents recurrent forms and issues in religious life, e.g. myths, rituals, the nature of the divine, good and evil, and introduces students to the academic study of religion. Traditions are covered thematically, with emphasis upon cross-cultural features of religion and pertinent theories. This course has been approved for Core Curriculum credit in Humanities.

**RELN 112. Survey of World Religions. (3)**

Three hours lecture.

This introductory course presents the classical expressions of the world's most widespread and historically significant religions. Students will learn about the origins, foundational figures, scriptures, beliefs, and practices of Hinduism, Buddhism, Daoism, Confucianism, Judaism, Christianity, and Islam. This course has been approved for Core Curriculum credit in Humanities or Global Perspectives.

**RELN 203. Sacred Texts of the West. (3)**

Three hours lecture.

Through critical reading of selections from the Old Testament, the New Testament, and the Qur'an, students will become familiar with the content of these texts; students will engage in the

critical interpretation of these sacred texts; and students will be introduced to the methods and theories that support the academic study of sacred texts and narratives. Not limited in historical context and scope, students will be introduced to the social and historical factors that influenced the development of each canon in its original context as well as examining how religious communities work to ensure the continued relevance of their sacred texts and narratives. This course has been approved for Core Curriculum credit in Humanities.

**RELN 205. Religion and Culture. (3)**

Three hours lecture.

This introduction to the social/scientific study of religion examines religion in its cultural context. Topics such as church and state, religion and race, secularization, and religion and economics are covered through historical cases from around the world. Major sociological theories of religion are considered. This course has been approved for Core Curriculum credit in Social and Behavioral Sciences or Global Perspectives.

**RELN 206. Survey of Religious Experiences. (3)**

Three hours lecture.

Cross-cultural and interdisciplinary examination of religious experiences, defined as "reported direct encounters with the supernatural." Students will read accounts from around the world of religious visions and calls, possession, mystical union, and journeys to the afterlife, along with the biographies of shamans, mediums, and mystics. Theories from a variety of academic disciplines will illuminate the human causes and consequences of these extraordinary phenomena. This course has been approved for Core Curriculum credit in Humanities.

**RELN 305. Religion and Women. (3)**

Three hours lecture.

*Prerequisite: Three hours of philosophy or religious studies.*

Examines the presentation of women in religious texts and history, feminist criticism of religious traditions, and the roles of women (past and present) in selected Western, Eastern, tribal, and neopagan religions. This course may be used to meet requirements for the minor in Women's Studies.

**RELN 310. Exploring the Old Testament. (3)**

Three hours lecture.

*Prerequisite: Three hours of religious studies.*

In this course students utilize the methods which inform the study of the Old Testament to examine various themes that collectively inform Old Testament theology. The themes which formed the ideology of Israelite religion are given special consideration, including the development of the universal God, covenant, and prophetic conceptions of history. In addition, students examine how these ideological themes inform other aspects of the Old Testament, including the text's presentation of identity, ethnicity, family, gender, the body, power, and the state. Each of these themes is explored within the context of the Old Testament and ancient Israelite society as well as by drawing comparisons with other ancient Near Eastern conceptions, where appropriate. Students who have previously taken RELN 202 may not receive credit for RELN 310.

**RELN 312. Exploring the New Testament. (3)**

Three hours lecture.

*Prerequisite: Three hours of religious studies.*

This course examines the New Testament using the tools of contemporary scholarship. Through a study of the history of the early Church and the varied stories presented by the different authors of the New Testament, students will learn to see the formative Christian tradition in all of its variety. Students who have previously taken RELN 200 may not receive credit for RELN 312.

**RELN 320. Jesus and the Gospels. (3)**

Three hours lecture.

*Prerequisite: RELN 312 or 202.*

This course first examines the three Synoptic Gospels as coherent and independent narratives. It then moves from story to history by using the tools modern scholars have developed to understand Jesus as a historical figure.

**RELN 330. History of Christianity. (3)**

Three hours lecture.

*Prerequisite: RELN 312 or RELN 310.*

Examines the history of Christianity, understood both as institution(s) and as intellectual tradition. From its origins until today, Christianity has presented itself in various, usually

competing, forms. We will strive to understand the intellectual issues at stake in various ages, what it was like to be an average Christian rather than a theologian, and how outsiders (such as Romans or Jews) viewed the Church.

**RELN 350. Religion in India. (3)**

Three hours lecture.

*Prerequisite: RELN 112.*

Provides students with an opportunity for advanced study in the historical development of religious thought and practice in India. It includes the study of Hinduism, Buddhism, Jainism, Islam, and Sikhism as well as minority religions such as Judaism, Christianity, and the faith of the Parsis.

**RELN 360. Religion in China and Japan. (3)**

Three hours lecture.

*Prerequisite: RELN 112.*

Provides students with an opportunity for advanced study in the historical development of religious thought and practice in China and Japan. It includes the study of ancestor worship, folk religion, Confucianism, Daoism, Buddhism, Shinto, "New Religious Movements" and communism.

**RELN 370. American Sects and Cults. (3)**

Three hours lecture.

*Prerequisite: Three hours of religious studies.*

Investigates nonconventional religious groups in the United States, from colonial Quakers and Puritans to contemporary Scientology and the Church of Satan. Lectures will survey mainline religious and cultural trends salient to the appearance of sects and cults. Students will evaluate social/scientific theories on topics such as the mental health of leaders and followers, cult-related violence, conversion and defection, the law and deviant religions.

**RELN 375. Religion and American Nationalism. (3)**

Three hours lecture.

*Prerequisite: Three hours of religious studies.*

An examination of the historically powerful public belief that America is a nation "chosen" by God to carry out a divine mission. Through careful reading of letters, sermons, presidential

addresses, and popular literature, this course will explore the history, components, and implications of the myth, as well as the myth's role in shaping America's political landscape today.

**RELN 380. Old Testament Topics. (3)**

Three hours lecture.

*Prerequisite: RELN 312 or 202.*

Concentrates on one segment, a particular genre, or a specific issue, to advance the student's knowledge and understanding of the Old Testament. Representative topics include law and covenant, narrative analysis of the Old Testament, wisdom literature, and the prophets. This course may be taken up to three times with a different topic each time.

**RELN 381. Religion and Death. (3)**

Three hours lecture.

*Prerequisite: 3 hours in Religious Studies.*

Religion and Death critically examines a significant dimension of religious life. Death, the great unknown, awaits us all. One of the chief functions of religions is to ease the anxiety and pain of being mortal. How and how well is this accomplished? To answer, students will explore supernaturalist treatments of death across cultures and time, e.g., funeral rites, descriptions of hell, ghost beliefs, and Near-Death Experiences.

**RELN 420. Topics in Religious Studies. (3)**

Three hours lecture.

*Prerequisite: Three hours of religious studies.*

Provides an opportunity for advanced study of a selected topic in religious studies. Examples of topics to be studied may include Zen Buddhism, goddesses, and the letters of Paul. The course may be taken up to three times with a different topic each time.

**RELN 488. Final Honors Project. (2-3)**

*Prerequisites: Enrollment in the Honors Academy, completion of all other Honors 424 Academy requirements, a minimum of 3.5 GPA in all courses and in religious studies.*

Project and topic to be determined by the student, the faculty member with whom the student works and the department. In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

**RELN 490. Religious Studies Internship. (3-12)**

*Prerequisites: 18 hours of Religious Studies; junior or senior standing; minimum 3.0 GPA in major; approval of the department chairperson.*

Offers an opportunity through experiential learning to apply skills gained through the Religious Studies curriculum in a career-oriented atmosphere. The internship consists of a one or two semester placement with a business, governmental agency, or religious or service organization interested in working with students who have critical thinking skills, research and writing skills, and knowledge of issues addressed in the study of religion. Grading will be on A-F basis. No more than 3 credit hours may be applied toward the requirements for the major.

**RELN 498. Independent Study. (1-6)**

See "Independent Study" on p. 53.

## RUSSIAN

**RUSS 100. Elementary Russian. (4)**

Four hours lecture.

A balanced emphasis on listening, speaking, reading, and writing Russian, and on the culture where this language is spoken. This course has been approved for Core Curriculum credit in Foreign Languages.

**RUSS 200. Intermediate Russian I. (4)**

Four hours lecture.

*Prerequisite: RUSS 100, the equivalent, or one year of high school Russian.*

Continued development of the basic language skills and of familiarity with Russian culture with a balanced emphasis on listening, speaking, reading, and writing Russian and on the culture where this language is spoken. This course has been approved for Core Curriculum credit in Foreign Languages.

**RUSS 210. Intermediate Russian II. (4)**

Four hours lecture.

*Prerequisites: RUSS 200, or the equivalent (two years of high school Russian).*

Review of fundamentals and continued practice in listening, speaking, reading, and culture with expanded use of literary and cultural materials.

This course has been approved for Core Curriculum credit in Foreign Languages

**RUSS 300. Readings in Russian.** (4)

Four hours lecture.

*Prerequisites: RUSS 210 or the equivalent (three years or more of high school Russian).*

Students will expand their knowledge and further develop skills in the areas of listening, speaking, reading, writing, and culture with an emphasis on reading. This course has been approved for Core Curriculum credit in Foreign Languages.

## SOCIOLOGY

**SOCY 110. Introduction to Sociology.** (3)

Three hours lecture.

Introduces basic concepts and methods of sociology. It presents significant research and theory in areas such as culture, social structure, socialization, deviance, social stratification and social institutions. This course has been approved for Core Curriculum credit in Social and Behavioral Sciences or U.S. Perspectives.

**SOCY 121. Understanding Cultures.** (3)

Three hours lecture.

Introduction to the ways anthropologists view human behavior and the methods they use. Cultures past and present and around the world are explored to study diverse adaptations humans have made. This course may be used to meet requirements for the minor in International Studies. This course has been approved for Core Curriculum credit in Social and Behavioral Sciences or Global Perspectives.

**SOCY 210. Social Problems.** (3)

Three hours lecture.

An analysis of problems such as crime and delinquency, overpopulation, social inequality and poverty and minority oppression is the focus of this course.

**SOCY 250. Social Inequality.** (3)

Three hours lecture.

*Prerequisite: SOCY 110 or SOCY/ANTH 121.*

Examines the dimensions, theories and distribution of inequality in the United States and worldwide. Particular attention is paid to the effects of economic inequality on the life chances of rich and poor, men and women, and dominant and subordinate groups alike. This course may be used to meet requirements for the minor in Women's Studies.

**SOCY 301. Culture Change and Globalization.** (3)

Three hours lecture.

*Prerequisite: SOCY 110 or SOCY/ANTH 121.*

Examination of social science theories on the processes of culture change, including globalization and the changes it brings to societies around the world. Students cannot receive credit for both ANTH 301 and SOCY 301.

**SOCY 326. Men and Women in Society.** (3)

Three hours lecture.

*Prerequisite: SOCY 110 or SOCY/ANTH 121.*

Examines differential access to positions of public power and authority for women and men, structural determinants of major social institutions in shaping gender roles and effects of gender roles on institutions. A student may not receive credit for SOCY 226 and SOCY 326. This course may be used to meet requirements for the minor in Women's Studies.

**SOCY 331. Race and Ethnic Relations.** (3)

Three hours lecture.

*Prerequisite: SOCY 110 or SOCY/ANTH 121.*

The effects of discrimination on groups such as African Americans, Hispanics, Native Americans, and gays and lesbians are examined as well as the social policy questions relevant to dominant group and minority relations.

**SOCY 333. Social and Cultural Diversity.** (3)

Three hours lecture.

*Prerequisite: SOCY 110 or SOC/ANTH 121.*

Provides, through lecture, discussion, and experiential exercises, an understanding of diverse cultures in the United States. Emphasis will be on developing the knowledge, attitudes and

skills necessary for full participation in a diverse workplace and a diverse society. Students cannot receive credit for both ANTH 333 and SOCY 333. This course may be used to meet requirements for the minor in Women's Studies.

**SOCY 337. Political Sociology. (3)**

Three hours lecture.

*Prerequisite: SOCY 110 or SOCY/ANTH 121.*

Provides an overview of American political processes: individual political participation, political movements, influence groups, community power studies, and theories of political power at the national level.

**SOCY 341. Sociology of Health and Medicine. (3)**

Three hours lecture.

*Prerequisite: SOCY 110 or SOCY/ANTH 121.*

Covers the health professional-patient relationship, relationships between health professionals, the nature of care in different health facilities, social and environmental causes of illness, death and dying, and the general quality of health care and delivery in American society.

**SOCY 360. Sociological Theory. (3)**

Three hours lecture.

*Prerequisites: SOCY 110 or SOCY/ANTH 121.*

Surveys a variety of contemporary sociological theories and provides an overview of the critical differences in their assumptions and foci. Students cannot receive credit for both SOCY 450 and SOCY 360.

**SOCY 361. Work, Organizations, and Society. (3)**

Three hours lecture.

*Prerequisites: SOCY 110 or SOCY/ANTH 121.*

Examines a wide variety of white- and blue-collar occupations and the impact of organizational structure on work and workers.

**SOCY 365. Society and the Individual. (3)**

Three hours lecture.

*Prerequisite: SOCY 110 or SOCY/ANTH 121.*

Designed to introduce students to sociological social psychology using a symbolic interactionist viewpoint. Approached this way, students

will explore the symbolic nature of communication, the emergence of the self and our role in the creation and maintenance of our social skills. Students cannot receive credit for both SOCY 265 and SOCY 365.

**SOCY 370. Environmental Sociology. (3)**

Three hours lecture.

*Prerequisites: SOCY 110 or SOCY/ANTH 121.*

Examines sociological issues relating to individuals, society and the natural environment. It focuses on a range of environmental problems utilizing an historical and comparative approach in assessing societal changes and their impact on nature as well as attitudinal differences toward the environment from multicultural perspectives.

**SOCY 380. Introduction to Social Research Methods. (3)**

Three hours lecture.

*Prerequisites: SOCY 110 or SOCY/ANTH 121 and STAT 200 or equivalent.*

Provides an introduction to basic procedures and techniques used in social research. Emphasis is placed on measuring instruments, as well as major methods and designs employed in social research.

**SOCY 389. Sociology of the Family. (3)**

Three hours lecture.

*Prerequisite: SOCY 110 or SOCY/ANTH 121.*

Examines family as a social institution. Includes sociological overview of modern family in its diverse forms and its relationship to economy, government, and stratification systems of gender, race, and class. Students cannot receive credit for both SOCY 289 and SOCY 389. This course may be used to meet requirements for the minor in Women's Studies.

**SOCY 390. Sociology of Sport. (3)**

Three hours lecture.

*Prerequisite: SOCY 110 or SOCY/ANTH 121.*

Sociological theories are utilized to understand the significance of sport as a social institution. Issues such as sport and socialization, the social organization of sport, sport and social stratification, and the relationship of sport to other institutions are discussed. This course may be used to meet requirements for the minor in Women's Studies.

- SOCY 411. Appalachian Cultures.** (3)  
Three hours lecture.  
*Prerequisite:* APST 200 or SOCY 110 or SOCY/ ANTH 121.  
Contemporary Appalachian culture; social science explanations of regional culture explored; causes and repercussions of culture change in Appalachia examined. Students cannot receive credit for both ANTH 411 and SOCY 411. This course may be used to meet requirements for the minor in Appalachian Studies.
- SOCY 421. Religious Pattern in Culture.** (3)  
Three hours lecture.  
*Prerequisite:* SOCY 110 or SOCY/ANTH 121, or permission of instructor.  
Study of social science theories of magic, witchcraft and religion. Discusses the impact religious ideology has on other aspects of culture. Includes primitive and modern religions as examples. Students cannot receive credit for both ANTH 421 and SOCY 421.
- SOCY 430. Social Movements.** (3)  
Three hours lecture.  
*Prerequisites:* SOCY 110 or SOCY/ANTH 121.  
Social movements are examined from a sociological perspective, with an emphasis on the social structural origins of collective events, their emergence, decline and effects on social policy.
- SOCY 433. Rural Sociology.** (3)  
Three hours lecture.  
*Prerequisite:* SOCY 110 or SOCY/ANTH 121.  
The study of rural society including its organization, rural people and their activities. The focus is on historical background, recent developments and significant current and future trends.
- SOCY 435. Native American Cultures.** (3)  
Three hours lecture.  
*Prerequisite:* SOCY 110 or SOCY/ANTH 121, or permission of instructor.  
Study of these cultures as they existed before and at the time of European contact and as they exist today. Students cannot receive credit for both ANTH 430 and SOCY 435.
- SOCY 441. Global Inequalities.** (3)  
Three hours lecture.  
*Prerequisites:* SOCY 110 or SOCY/ANTH 121.  
Focuses on the social, economic, and political factors that shape unequal life chances between and within nations. Theories of development, the role of developed nations, evidence of various types of inequalities, and possible ways to address the global inequalities – including specific projects that have been successful – will be examined. The role of international treaties, of various international and multinational commissions, and of non-governmental agencies will be given particular attention. This course may be used to meet requirements for the minor in Women’s Studies.
- SOCY 443. Deviance.** (3)  
Three hours lecture.  
*Prerequisite:* SOCY 110 or SOCY/ANTH 121.  
Explores major sociological theories of deviance and examines the socio-political dynamics surrounding definitions of “morality,” “normalcy” and goodness in societies. Particular attention is given to sociological approaches to “mental illness,” drug/alcohol use and sexuality.
- SOCY 444. Juvenile Delinquency.** (3)  
Three hours lecture.  
*Prerequisite:* Six hours of sociology.  
Examines felony and status offenses among juveniles and focuses on theories dealing with the impact of school, family and various subcultures on socializing youth. The differential handling of youthful offenders is also covered. Credit for SOCY 444 will not be granted after a student has received credit for CRJU 210, Juvenile Justice, or the equivalent course
- SOCY 471. Society and Film.** (3)  
Three hours lecture.  
*Prerequisites:* SOCY 110 or SOCY/ANTH 121.  
Examination of the social and cultural importance of film. The central focus will be on analyzing cinematic treatment of such things as gender, race, class, marriage and the family, and the impact of social change.

**SOCY 475. Ecology, Economy, and Culture. (3)**

Three hours lecture.

*Prerequisite: SOCY 110 or SOCY/ANTH 121, or permission of instructor.*

Examination of sociocultural theories on economic organization and behavior, and related environmental issues, for societies around the world. Cross-cultural study of economic diversity using cases from cultures around the world, past and present. Students cannot receive credit for both ANTH 471 and SOCY 475.

**SOCY 480. Survey Research Methods. (3)**

Three hours lecture.

*Prerequisites: SOCY 380; Junior or senior standing.*

Covers the construction of an instrument, sampling design and methods of analysis and interpretation of data. It acquaints students with the use of computers for social science research. Students gain a hands-on experience with design and completion of survey research that is valuable for any student entering a career requiring familiarity with the basis of social survey research.

**SOCY 482. Practicing Ethnographic Methods. (4)**

Two hours lecture; two hours field.

*Prerequisite: SOCY 110 or SOCY/ANTH 121, or permission of instructor.*

A research project of the student's own choosing is carried through from entree into a local cultural scene through analysis of data and writing an ethnography. The course promotes understanding ethnographic method and perspective for viewing people and situations. Students cannot receive credit for both ANTH 480 and SOCY 482. This course may be used to meet requirements for the minor in Appalachian Studies.

**SOCY 485. Organizational Research. (3)**

Three hours lecture.

*Prerequisites: SOCY 380 or equivalent, junior or senior standing.*

Covers how social organizations collect, analyze, and disseminate data to support planning, evaluation, and management. Students gain hands-on experience with the use of computers

for social science research, analysis of data from at least two types of organizational databases, and the creation and presentation of reports for at least two target audiences.

**SOCY 486. Community Based Research. (3)**

Three hours lecture.

*Prerequisite: SOCY 110 or SOCY/ANTH 121, or permission of instructor.*

Examines the ways that social science perspectives, theories, and methods are applied to help communities solve problems. Students cannot receive credit for both ANTH 361 and SOCY 486.

**SOCY 488. Honors Thesis. (3)**

*Prerequisites: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 GPA in all courses and in sociology and anthropology.*

The student conducts research and writes a thesis for a bachelor's degree with honors in sociology. In order to receive honors credit, the student must receive an grade of "A" or "B" for the thesis. This course may not be repeated.

**SOCY 493. Practicum in Sociology. (1-6)**

Field or laboratory course; variable hours per week.

*Prerequisites: SOCY 110 or SOCY/ANTH 121, or permission of instructor.*

Provides experience in all aspects of a field or laboratory research project in sociology. It is taught when field sites or laboratory work are available. It may be repeated when topics vary for a maximum of 12 hours credit.

**SOCY 495. Topical Seminar in Sociology. (3)**

Three hours seminar.

*Prerequisites: SOCY 110 or SOCY/ANTH 121, or permission of instructor.*

Offers reading and/or research orientation in a specialized area selected by departmental staff. It may be taken for a total of six hours credit when topics differ.

**SOCY 497. Senior Seminar in Sociology. (3)**

*Prerequisite: Senior standing.*

Serves as the capstone experience for sociology majors. Students will learn to market their

skills, explore opportunities, and prepare for entry into the workplace.

**SOCY 498. Independent Study.** (1-6)  
See “Independent Study” on p. 53.

**SOCY 499. Internship.** (1-12)  
*Prerequisites: Students must complete 12 hours of sociology and have permission of the department chair.*

Students must get approval of the department on the proposed program and agency in the semester preceding that in which the internship is anticipated. The course may carry one to twelve hours credit a semester and may be repeated to a maximum of 12 hours credit. Only three credit hours may be counted toward the sociology major. Offered as required.

## **SOCIAL WORK**

**SOWK 200. Introduction to Professional Practice.** (3)

Three hours lecture.

Introduces the various fields and issues related to the helping professions with an emphasis on social work. Focuses on the academic, legal and professional requirements, culture, knowledge base, ethical issues and history of the helping professions.

**SOWK 210. Interventive Methods I.** (3)

Three hours lecture.

*Pre- or Corequisite: SOWK 200.*

Introduces the theories, concepts and basic skills involved in helping persons in the delivery of human services. Emphasizes interviewing and problem-solving skills.

**SOWK 289. Preprofessional Field Instruction (P/F).** (4)

Three hours laboratory.

*Prerequisites: SOWK 210; BSW Coordinator approval.*

Students are placed in a human service agency for 10 hours per week, or 150 hours total. They intern in an observational and assisting manner with practicing human service

professionals. Students attend a one hour seminar each week to process the intern experience, learn about professional practice, create the portfolio required for an admissions interview, and prepare their applications to the major.

**SOWK 300. Human Behavior and the Social Environment I.** (3)

Three hours lecture.

*Prerequisite: PSYC 121, SOCY 110, ANTH/SOCY 121 or PEAC 200, BIOL 104; Admission to SOWK major.*

Builds upon concepts drawn from the social and behavioral sciences to provide an overview of theory influencing understanding of human behavior and the social environment. Special emphasis on understanding individuals and families.

**SOWK 301. Human Behavior and the Social Environment II.** (3)

Three hour lecture.

*Prerequisite: PSYC 121, SOCY 110, ANTH/SOCY 121 or PEAC 200, BIOL 104; Admission to SOWK major.*

*Corequisite: SOWK 300.*

Builds upon concepts drawn from the social and behavioral sciences to further our understanding of the human condition. Special emphasis on collectivities (groups, communities, and organizations).

**SOWK 309. Introduction to Social Work Perspectives.** (3)

Three hours lecture.

*Prerequisite: AA/AS degree and permission of BSW Coordinator.*

Designed to prepare students for successful progression, participation and graduation from the undergraduate social work major. The course content includes knowledge of generalis practice, characteristics of a social work professional, expectations of students in the social work program, and the professional standards for conveying that knowledge through scholarly writing. Students create the portfolio required for an admissions interview, and prepare their applications to the major.

- SOWK 317. Generalist Issues and Practice. (3)**  
 Three hours lecture.  
*Prerequisite: AA/AS degree and permission of BSW Coordinator.*  
 Introduces undergraduate students to the distinctive attributes of professional social work. It affords students a comprehensive “working” definition of social work. Course content provides an overview of social work knowledge, values, and skills and their application to human issues and concerns.
- SOWK 320. History of Social Welfare. (3)**  
 Three hours lecture.  
*Prerequisite: Admission to SOWK Major.*  
 Reviews the historical development of social work as a profession and social welfare as an institution in western civilization with a focus on post-13th century developments. Emphasis is placed on a developmental lifespan approach.
- SOWK 321. The Foundations of Social Policy. (3)**  
 Three hours lecture.  
*Prerequisites: SOWK 320.*  
 Provides students with a conceptual framework for analyzing social policy and its impact on the development of human service programs.
- SOWK 350. Introduction to Social Work Research. (3)**  
 Three hours lecture.  
*Prerequisites: MATH 114 and STAT 200 (co-prerequisite); Admission to SOWK major.*  
 Introduction to basic methods and techniques used in social work research. Emphasis is placed on common procedures utilized in social work research, particularly as they apply to social work policy and practice.
- SOWK 410. International Perspectives on Social Welfare. (3)**  
 Three hours lecture.  
 Provides students with an international perspective for examining the underlying concepts, values, and practices of social work. Examines the universal problems faced by human beings everywhere and programs that have been developed to address those problems.
- SOWK 419. Service Learning. (3)**  
 Three credits, volunteer experience and monthly seminar.  
*Prerequisite: Admission to Social Work major or permission of instructor.*  
 Course provides opportunity for educationally focused community volunteer service experience where students can apply classroom learning, develop leadership skills, explore career options, and advocate for issues that impact the quality of life.
- SOWK 421. Child Welfare. (3)**  
 Three hours lecture.  
 Analyzes changing philosophy toward children in American society and the services designed to meet recognized needs.
- SOWK 422. Interventive Methods II: Working With Individuals and Families. (3)**  
 Three hours lecture.  
*Prerequisites: PSYC 121, SOCY 110, ANTH/SOCY 121, PHIL course, COMM 114, SOWK 300, and SOWK 301; Admission to SOWK Major*  
 Integrates the student’s knowledge base in human behavior in the social environment with specific skills needed to work with individuals, couples and families. Students gain both theoretical and experiential knowledge.
- SOWK 423. Interventive Methods III: Working With Groups. (3)**  
 Two hours lecture; two hours laboratory.  
*Prerequisites: SOWK 422; Admission to SOWK Major.*  
 Integrates the student’s knowledge base in human behavior in the social environment with specific skills needed in working with groups. Both theoretical material and a “hands on” experience in working with groups are included in this course.
- SOWK 424. Interventive Methods IV: Organizing Skills. (3)**  
 Three hours lecture.  
*Prerequisite: PSYC 121, SOCY 110, ANTH/SOCY 121 or PEAC 200, and BIOL 104; Admission to SOWK Major.*

Integrates the student's knowledge base in human behavior in the social environment with specific skills needed in working with neighborhoods, communities, agencies and institutions. Both conceptual frameworks and experience in working with large groups are included.

**SOWK 425. Gerontology: Social Welfare Aspects. (3)**

Three hours lecture.

Surveys the problems of the aged with particular emphasis on the network of social services available to serve the elderly in contemporary society.

**SOWK 480. Special Topics Seminar. (1-3)**

Three hours lecture.

Intensive study of a specialized area of social and human services. Topics are determined by instructors based on student interest. (May be taken a maximum of three times for no more than 9 semester hours credit.)

**SOWK 488. Final Honors Project. (3)**

*Prerequisites: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 GPA in all courses and in Social Work.*

Provides Social Work honors students an opportunity to prepare an honors project. In order to receive honors credit, student must earn a grade of "A" or "B" for the final project. Course may not be repeated. See "Honors Academy" on p. 80.

**SOWK 489. Field Instruction Placement. (12)**

One semester: 38 hours per week.

*Prerequisites: Student has maintained a 2.5 overall GPA, a 2.7 GPA in all SOWK courses, has completed all required social work courses, all other required courses, 432 and approval of BSW Coordinator. Student must provide transportation to and from field sites.*

Provides block field placement involving one semester of practice social work in human service agency or institution with trained supervision. Grade of "P" or "F" is given; "P" is interpreted as "C" or better.

**SOWK 490. Integrative Seminar. (3)**

Three hours seminar.

*Pre-or corequisite: Concurrent enrollment in SOWK 489.*

Focuses upon the major elements of social work practice: assessment, intervention, policy implications, ethical imperatives and evaluation. Taken concurrently with the internship and through a series of assignments, the student tests the content of social work practice with experiences in field agencies. Additional resources and fees are required.

**SOWK 498. Independent Study. (1-6)**

See "Independent Study" on p. 53.

**SPANISH**

**SPAN 101. Spanish I Beginning Spanish. (3)**

Three hours lecture and language practice.

An introduction to written and oral communication in Spanish with emphasis upon the present tense. Independent laboratory practice required. This course has been approved for Core Curriculum credit in Foreign Languages.

**SPAN 102. Spanish II Beginning Spanish. (3)**

Three hours lecture and language practice.

*Prerequisite: SPAN 101 or placement by examination.*

A continuation of Spanish I with emphasis upon communication in both the present and past tense. Independent laboratory practice required. This course has been approved for Core Curriculum credit in Foreign Languages.

**SPAN 201. Spanish III Intermediate Spanish. (3)**

Three hours lecture and language practice.

*Prerequisite: SPAN 102 or placement by examination.*

A continuation of Spanish I and II with emphasis upon communication in any tense. Independent laboratory practice required. This course has been approved for Core Curriculum credit in Foreign Languages.

**SPAN 202. Spanish IV Intermediate Spanish Practice. (3)**

Three hours lecture and language practice.

*Prerequisite: SPAN 201 or placement by examination.*  
A continuation of Spanish I, II, and III with emphasis upon communication. Intensive reading of simple prose. Laboratory practice required. This course has been approved for Core Curriculum credit in Foreign Languages.

**SPAN 211. Spanish for Health Care. (3)**

Three hours lecture.

*Prerequisite: SPAN 202 or four years of high school Spanish.*

Designed as an introduction to technical vocabulary used by health care professionals when working in this field and to the health practices and systems in the Spanish speaking world. Students are exposed to idiomatic expressions used when meeting a patient, dealing with privacy issues, etc. This class is not intended for native speakers. Students cannot receive credit for SPAN 211 and SPAN 311.

**SPAN 212. Spanish for Law Enforcement. (3)**

Three hours lecture.

*Prerequisite: SPAN 202 or four years of high school Spanish.*

An introduction to the technical vocabulary used by law enforcement professionals when working in this field and to law practices and systems in the Spanish speaking world. Students are exposed to idiomatic expressions used to enhance communication related to this topic. It requires active participation from the students and is taught entirely in Spanish. Students cannot receive credit for both SPAN 212 and SPAN 312.

**SPAN 220. Spanish for Heritage Speakers I. (3)**

Three hours lecture.

*Prerequisite: SPAN 201 or placement by department.*

The first of a two-course sequence (SPAN 220/221) designed to develop and expand the Spanish communication skills of Spanish-English bilinguals who have received little formal education in the Spanish language.

**SPAN 221. Spanish for Heritage Speakers II. (3)**

Three hours lecture.

*Prerequisite: SPAN 201, SPAN 220, or placement by department.*

The second of a two-course sequence (SPAN 220/221) design to develop and expand the Spanish communication skills of Spanish-English bilinguals who have received little formal education in the Spanish language.

**SPAN 300. Readings in Spanish. (3)**

Three hours lecture.

*Prerequisite: SPAN 202 or placement by examination.*  
Practice in the reading of Spanish texts with special attention to the methods of literary analysis.

**SPAN 303. Spanish Conversation. (3)**

Three hours lecture.

*Prerequisite: SPAN 202 or four years of high school Spanish.*

Offers intensive situational practice of conversational skills. This class reviews grammar and vocabulary while focusing on developing the student's ability to converse on a broad range of topics. It requires active participation from the students and is taught entirely in Spanish.

**SPAN 320. Advanced Grammar. (3)**

Three hours lecture.

*Prerequisite: SPAN 202.*

Develops students' understanding of the most difficult grammatical concepts of the Spanish language. Required of all Spanish majors.

**SPAN 323. Composition and Translation. (3)**

Three hours lecture.

*Prerequisite: SPAN 320.*

Development of students' abilities in composition in the Spanish language.

**SPAN 325. Spanish Culture. (3)**

Three hours lecture.

*Prerequisite: SPAN 202 or four years of high school Spanish.*

Presents a contrastive study of the cultures of Spain, with emphasis on the dominant Hispanic culture. Historical, political, and artistic events will

be given special attention in a chronological survey of the culture of Spain. Taught in Spanish.

**SPAN 326. Contemporary Spanish Culture. (3)**

**Three hours lecture.**

*Prerequisite: Spanish 202 or four years of high school Spanish.*

A topical examination of Spain in the late 20th century, including recent history, political, economic and social problems, and the arts. Taught in Spanish.

**SPAN 335. Spanish American Culture. (3)**

Three hours lecture.

*Prerequisite: Spanish 202 or four years of high school Spanish.*

Traces the development of Spanish American civilization and culture from pre-Colombian period to the Mexican Revolution of 1910. Taught in Spanish.

**SPAN 336. Contemporary Spanish American Culture. (3)**

Three hours lecture.

*Prerequisite: Spanish 202 or four years of high school Spanish.*

Traces the development of Spanish American civilization and culture from the Mexican Revolution of 1910 to the present. Taught in Spanish.

**SPAN 410. Survey of Spanish Literature I. (3)**

Three hours lecture.

*Prerequisites: SPAN 300 and 320 or equivalent.*

Introduction to most important writers and literary movements of Spain from the Middle Ages through the Golden Age. Taught in Spanish.

**SPAN 411. Survey of Spanish Literature II. (3)**

Three hours lecture.

*Prerequisites: SPAN 300 and 320 or equivalent.*

Introduction to the most important writers and literary movements of Spain from Neoclassicism to the 20th century. Taught in Spanish.

**SPAN 420. Survey of Spanish American Literature I: Colonial Period to Vanguardismo. (3)**

Three hours lecture.

*Prerequisites: SPAN 300 and 320 or equivalent.*

A study of the literature of the countries of Spanish America from the Colonial Period to Vanguardismo. Historical and cultural background emphasized; most important works are read and discussed in class. Taught in Spanish.

**SPAN 421. Survey of Spanish American Literature II: Postmodernism to Contemporary Period. (3)**

Three hours lecture.

*Prerequisites: SPAN 300 and 320 or equivalent.*

A study of the literature of the countries of Spanish America from Vanguardismo to Contemporary Period. Historical and cultural background emphasized; most important works are read and discussed in class. Taught in Spanish.

**SPAN 440. Spanish-English Contrastive Analysis. (3)**

Three hours lecture.

*Prerequisite: SPAN 320.*

This linguistics course compares/contrasts features or characteristics of both the English and the Spanish language. Aspects of contrast will include: English/Spanish language history, English/Spanish phonology, English/Spanish morphology, syntax, and semantics. Conducted in Spanish.

**SPAN 460. Special Topics. (3-4)**

Three or four hours lecture.

*Prerequisites: SPAN 300 and SPAN 320 or equivalent.*

Advanced topics in culture, literature or language. All work conducted in Spanish. May be taken twice for credit.

**STATISTICS**

**STAT 200. Introduction to Statistics. (3)**

Three hours lecture.

Introduction to statistical methods; descriptive statistics, normal distribution, estimation, hypothesis testing, correlation and regression. Will

not satisfy requirements for major in mathematics. Students who have received credit for any of STAT 205, 208, or 211 may not receive credit for STAT 200.”

**STAT 301:302. Probability and Statistics I and II. (3)**

Three hours lecture.

*Prerequisites: MATH 152.*

Introduction to the basic concepts of probability. A survey of the most common probability distributions. Introduction to the use of statistical techniques with particular application to physical and biological sciences. Students who have received credit for STAT 410:411 cannot also receive credit for STAT 301:302.

**STAT 320. Methods of Non-Parametric Statistics. (3)**

Three hours lecture.

*Prerequisite: STAT 200 or 301.*

Examines distribution-free analogs of many classical statistical tests. Topics include tests based on binomial distribution, tests based on Fisher’s method of randomization, goodness of fit tests, two sample tests, and correlation procedures. Modern computer software will be used to analyze real world data.

**STAT 420. Modern Regression Analysis. (3)**

Three hours lecture.

*Prerequisite: STAT 302.*

Fundamental concepts in modern regression diagnostics. Choice of best subset model using cross validation methods. Study of collinearity and methods for combating collinearity. Use of residuals in regression diagnostics. Detection of high influence data points. Use of modern computer software.

**STAT 421. Design of Experiments. (3)**

Three hours lecture.

*Prerequisite: STAT 302.*

Theory of analysis of variance and covariance; fixed and random effects models; completely randomized design; randomized block design, Latin square design, factorials; split-plot design and response surface design.

**STAT 430. Statistical Packages. (3)**

Two hours lecture; two hours laboratory.

*Prerequisite: STAT 200 or 301.*

Consideration of statistical packages available at Radford University. Topics include accessing the system, editing, describing data sets via summary statistics and graphical displays, testing hypotheses in the normal theory one and two sample cases, simple linear regression and correlation. Both SAS and SPSS are studied.

**STAT 431. Statistical Consulting. (3)**

Three hours lecture.

*Prerequisites: STAT 302.*

Lectures will provide information on communication skills and the process of conducting a statistical consultation. Practical experience in applied statistics and statistical computing will be obtained by active participation in consultations and by working under faculty supervision with clients from the university community.

**STAT 480. Topics in Statistics. (3)**

Three hours lecture.

*Prerequisite: Permission of instructor.*

Special topics in statistics, as student and faculty interest demands; syllabus is available each time the course is offered. Interested students should contact the department chairperson and the course instructor before registering. May be repeated for credit with a different topic.

**STAT 488. Final Honors Project. (2-3)**

*Prerequisites: Major in mathematics, enrollment in the Honors Academy, completion of all other Honors Academy requirements, a minimum 3.5 GPA in all courses and in mathematics and statistics, senior standing.*

Topics in statistics determined by the student, the faculty member with whom the student works and the department. In order to receive honors credit, a student must earn a grade of A or B for the final project. Course may not be repeated. See “Honors Academy” on p. 80.

**STAT 498. Independent Study. (1-6)**

See “Independent Study” on p. 53.

**STAT 499. Internship in Statistics. (1-6)**  
*Prerequisite: Junior or senior standing, at least a 2.5 GPA overall, at least a 2.5 GPA in mathematics and statistics and permission of instructor.*  
Applications of theory learned in the classroom to real-world statistical problems in a professional setting. Provides a platform for building teamwork skills and solving interdisciplinary problems.

## **THEATRE AND CINEMA**

**THEA 100. Theatre Appreciation. (3)**  
Three hours lecture.  
An introduction to the art of theatre and dramatic literature through lectures and discussion of basic artistic components involved in the theatrical process. Attendance at theatrical productions is a major component to the course. This course has been approved for Core Curriculum credit in Visual and Performing Arts.

**THEA 180. Introduction to World Cinema. (3)**  
Three hours lecture.  
A study of the cinematic arts from its inception to current times. The focus will be on the aesthetic, technological, economic and geopolitical historical progression of the cinematic arts. This course has been approved for Core Curriculum credit in Visual and Performing Arts or Global Perspectives.

**THEA 201. Theatre Aesthetics. (3)**  
Three hours lecture.  
This is a course in the practice of the art of theatre and is designed for theatre and cinema majors. The course will cover how to read and analyze a play, how various theatre artists begin to interpret dramatic literature for production, a basic vocabulary for analysis and production, an orientation to the department and a working knowledge of communicating as part of a production team. Student cannot receive credit for both THEA 110 and THEA 201.

**THEA 227. Acting I. (3)**  
Four hours laboratory.  
Acting I is a rigorous study of the art of acting through the exploration of the actor's tools: body, voice, script analysis, the creative impulse, and how these elements can be shaped in relation to the intent of the playwright. Acting I is designed primarily for theatre majors. Student cannot receive credit for both THEA 125 and THEA 227.

**THEA 231. Stagecraft. (3)**  
Three hours lecture, demonstration and critique.  
The study of scenic and costume construction methods including equipment and drafting techniques commonly used for theatrical scenery and costumes including the practical application of these techniques through backstage participation in departmental productions. Student cannot receive credit for both THEA 101 and THEA 231.

**THEA 232. Theatrical Lighting and Sound. (3)**  
Three hours lecture, demonstration and critique.  
An introduction to the basic equipment and processes of theatrical lighting and sound, their interconnection, and their operation. Student cannot receive credit for both THEA 102 and THEA 232.

**THEA 236. Makeup I. (3)**  
Three hours lecture, demonstration and critique.  
A study and practical application of basic stage makeup techniques used in theatrical venues including old age, character, period and fantasy styles.

**THEA 260. Theatre Participation I. (1)**  
One hour laboratory.  
Provides students with an experiential application of the principles of theatrical production and its related fields. Typical experiences will include but not be limited to: acting, box office, costume production, dramaturgy, lighting implementation, makeup creation, publicity, scenic production, stage managing, and sound production. This course is intended for students who wish to combine their classroom learning with practical experience through participation in a closely supervised project. May be repeated once for a total of 2 semester hours of credit.

- THEA 297. Voice and Movement.** (3)  
Four hours lecture.  
*Prerequisite:* THEA 227.  
The study of the voice and body as the primary tools of the actor. Intense focus will be given to each component individually as well as the integration of both as a means of communication of intent and action to an audience. Students who have received credit for THEA 226 or THEA 310 cannot also receive credit for THEA 297.
- THEA 300. Sound Design for the Arts.** (3)  
Three hours lecture, demonstration, laboratory and critique.  
*Prerequisite:* *Permission of instructor.*  
Instruction in the art of sound recording, editing, storage and processing. Study of sound design for the arts with special emphasis on dance, film radio, television, music and theatre.
- THEA 327. Acting II: Scene Study.** (3)  
**Four hours laboratory.**  
*Prerequisite:* THEA 227.  
Acting II continues the rigorous study of the art of acting which employs practices pursued in Acting I and continues an exploration of technique based in method and nonmethod approaches. This course examines the in-depth process of developing scripted scenes. Acting II is designed for theatre majors. Student cannot receive credit for both THEA 225 and THEA 327.
- THEA 328. Acting III: Improvisation Techniques.** (3)  
Three hours lecture.  
*Prerequisite:* THEA 227.  
The workshop style class seeks to improve the actors' access to their individual creativity and imagination through exercises designed to sharpen their improvisational skills. Student cannot receive credit for both THEA 324 and THEA 328. Can be repeated for academic credit.
- THEA 330. Theatre Design I.** (3)  
Three hours lecture.  
*Prerequisites:* THEA 201, THEA 231, and THEA 232.  
A study in the fundamentals of design for theatrical venues including the conceptualization process. Students will be introduced to each design area including scenery, costume, lighting and sound. Student cannot receive credit for both THEA 200 and THEA 330.
- THEA 333. Theatre Design II.** (3)  
Two hours lecture; two hours laboratory.  
*Prerequisites:* THEA 330 and *sophomore standing.*  
Detailed study of design for scenery, lighting, and costuming beginning with research, then developing and executing the design. Students will work in each design area and be introduced to multiple mediums used for rendering, rendering techniques, hand drafting, CAD drawing/drafting, sketching, and research work.
- THEA 334. Theatre Design III.** (3)  
Two hours lecture; two hours laboratory.  
*Prerequisite:* THEA 333.  
Concentrated study of design for scenery, lighting, and costuming. Students may elect but are not required to focus in two areas of design. Students will work to refine their collaborative and organizational skills needed for their selected areas.
- THEA 336. Makeup II.** (3)  
Three hours lecture, demonstration and critique.  
*Prerequisite:* THEA 236.  
The advanced study and practical application in makeup techniques including prosthetics, life masks, wig making, computer-aided design and other techniques.
- THEA 350. Directing I.** (3)  
Three hours lecture.  
*Prerequisites:* THEA 201, THEA 227, THEA 231.  
An overview of the directing process through scene work, lectures and discussion. Study of theoretical, critical and historical writings is a major component.
- THEA 360. Theatre Participation II.** (1)  
One hour laboratory.  
*Prerequisite:* THEA 260 or *junior standing.*  
Provides students with an experiential application of advanced principles in a theatrical production and its related fields. Typical experiences will include but not be limited to: leadership positions, acting, box office, costume production, dramaturgy, lighting implementation, makeup creation, publicity, scenic production, stage managing, sound production. May be

repeated for up to four (4) semester hours of credit.

**THEA 366. Travel Study. (1-12)**

Academic study involving domestic and/or international travel. May be taken again for credit with different topics or areas of study.

**THEA 370. Playwriting. (3)**

Three hours lecture and discussion.

The basic principles of playwriting are explored in a forum involving the reading and discussion of student plays. Students complete a one-act play or one act of a longer work. Completed scripts are sought for production in The Studio Theatre.

**THEA 374. Survey of Drama. (3)**

Three hours lecture.

*Prerequisites: THEA 201 and sophomore standing.*

Undertakes the study and analysis of significant plays from the classical, modern, and contemporary theatre repertoire. Drawing from theatre practice and script analysis for production, students examine plays from the global theatre past and present.

**THEA 375. Theatre History I. (3)**

Three hours lecture and discussion.

*Prerequisites: THEA 201 and junior standing.*

Investigates theatre from its ritualistic beginnings to the Renaissance, examining aspects of theatrical performance, design, architecture, audiences, literature, and theory/criticism. Theatre is contextualized in the cultures, styles, and politics of past societies, with emphasis on the influence of ancient theatre in today's world.

**THEA 376. Theatre History II. (3)**

Three hours lecture.

*Prerequisites: THEA 201 and junior standing.*

Investigates theatre from the Renaissance through the modern and contemporary theatre repertoire, examining aspects of theatrical performance, design, architecture, audiences, literature, and theory/criticism. Theatre is contextualized in the cultures, styles, and politics of past societies, with emphasis on the influence of theatre in today's world.

**THEA 381. Foundations of Cinematic Aesthetics. (3)**

Three hours lecture.

*Prerequisite: THEA 180.*

An exploration of the aesthetic process of cinema through the examination of films recognized by film scholars to be seminal in shaping the way that we make and view cinematic art. Student cannot receive credit for both THEA 280 and THEA 381.

**THEA 410. Voice and Speech. (3)**

Three hours lecture.

*Prerequisite: THEA 297.*

The work begun in Voice and Movement is extended through continuing physical awareness with an emphasis on vocal range along with parallel work on articulation and other speech elements. Student cannot receive credit for both THEA 326 and THEA 410.

**THEA 425. Acting IV: Scene Study. (3)**

Three hours lecture.

*Prerequisites: THEA 227 and THEA 327.*

An advanced acting course designed for theatre majors interested in pursuing professional acting. Through the application of scene work students will continue to develop their individual acting process and craft. Focus will be a range of genres, reinforcing rehearsal and performance vocabulary and techniques and deepening ensemble skills. Can be repeated for academic credit.

**THEA 430. Theatre Design IV. (3)**

Two hours lecture; two hours laboratory.

*Prerequisite: THEA 334.*

Advanced study of design for scenery, lighting, and costuming. Students may, but are not required to, limit their focus to one area of design.

**THEA 450. Directing II. (3)**

Two hours lecture; two hours laboratory.

*Prerequisites: THEA 227, THEA 327, and THEA 350; or permission of the instructor.*

The study of various significant figures and theories of stage production. Students are required to complete a final advanced project for public presentation of a one-act play. A final portfolio is also required.

**THEA 475. Theatre Problems. (3)**

Three hours lecture.

Contains a concentrated study of particularly significant people, events, movements or aspects of theatrical venues not covered in depth in other course offerings. May be repeated (on different topics) for maximum of 12 semester hours credit.

**THEA 476. Production Practicum. (1-3)**

*Prerequisite: Permission of instructor.*

Provides the student with an experiential application of the principles of theatrical production and its various aspects. Typical experiences will include, but not be limited to: acting, box office, design and production, directing, dramaturgy, makeup design, publicity, and management. This course is intended for students who wish to extend their classroom experience by applying it practically to a realized project. May be repeated for up to twelve (12) semester hours for credit.

**THEA 478. Internship in Theatrical Production. (1-12)**

*Prerequisite: Sophomore standing, acceptance of Internship application by the faculty and the theatre designated for internship residency.*

Short or long term professional theatre/film residency in one of the following areas: box office/house management, development, directing/acting, drama enrichment/education, literary, marketing, stage management and technique production and design: scenic costume, lighting and sound. May be taken again for maximum of 12 semester hours credit.

**THEA 480. Film Theory and Criticism. (3)**

Three hours lecture.

*Prerequisite: THEA 180.*

The study of critical thought in cinematic arts from its inception to current times.

**THEA 482. Documentary/Nonfiction Film. (3)**

Three hours lecture.

*Prerequisite: THEA 180.*

An overview of documentary/nonfiction film from its primitive beginnings in the shorts of the Lumiere Brothers to an examination of contemporary artists, directions and visions. Student cannot receive credit for both THEA 380 and THEA 482.

**THEA 488. Final Honors Project. (2-3)**

*Prerequisites: Enrollment in the Honors Academy, completion of all other Honors Academy requirements, senior standing, a minimum 3.5 GPA in all courses and in theatre.*

The project and the topic to be explored will be determined by the student, the faculty member with whom the student works and the student's major program area. (Honors project may be a written or performance-based project.) In order to receive honors credit, a student must earn a grade of "A" or "B" for the final project. Course may not be repeated.

**THEA 498. Independent Study. (3)**

*Prerequisite: THEA 201.*

See "Independent Study" on p. 53.

**UNIVERSITY 100**

**UNIV 100. Introduction to Higher Education. (1)**

*Prerequisites: First year students and/or first semester transfer students by permission.*

Explores the meaning and value of a comprehensive liberal arts education, teach problem solving and decision-making processes, and promote academic success through selected readings, presentations, discussions, and experiential learning opportunities. Students will learn and practice a variety of specific techniques for learning and self-management.

**VISUAL AND PERFORMING ARTS**

**CVPA 266. Travel Study in Visual and Performing Arts. (3)**

*Prerequisite: Permission of instructor.*

Academic study involving international travel. Locations and study focus vary with each section, but may include Greece (for art), Italy (for music), England (for theatre), and so on. This course has been approved for Core Curriculum credit in Visual and Performing Arts.

## WOMEN'S STUDIES

### **WMST 101. Women in the World: Introduction to Women's Studies.** (3)

Three hours lecture/discussion.

An introduction to the interdisciplinary field of Women's Studies through global and multicultural perspectives. It provides an overview of women's experiences and their activism to achieve equality over time and across the world, with attention to differences of gender, race, ethnicity, class, sexuality, and nation. This course establishes a foundation for further coursework in the Women's Studies minor. This course has been approved for Core Curriculum credit in Global Perspectives.

### **WMST 290. Special Topics in Women's Studies.** (3)

Three hours lecture.

*Prerequisites: WMST 101 or permission of instructor.*

Concentrated study on specific areas in Women's Studies. May be taken for credit as often as course content varies. Content will be approved by the Women's Studies Advisory Committee.

### **WMST 490. Special Topics Seminar in Women's Studies.** (3)

Three hours lecture.

*Prerequisites: WMST 101 and Sophomore status.* Concentrated study on specific areas in Women's Studies. May be taken for credit as often as course content varies. Content will be approved by the Women's Studies Advisory Committee.

### **WMST 499. Internship in Women's Studies.** (3-6)

Three to six hours experiential, and advisement.

*Prerequisites: Approval by the Women's Studies committee; junior status or higher; WMST 101 and one other accepted course in the minor. An elective in the Women's Studies minor.*

The student will be placed in an agency, department, or program with a focus on women's lives. In this environment, the student will participate in ongoing functions, including training. The student will also meet regularly with a faculty member to process the internship experience and to relate it to readings in Women's Studies.

# BOARD AND ADMINISTRATION

<b>BOARD MEMBERS</b>	<b>TERM EXPIRES</b>		
		<b>Rene Fonseca</b> Springfield, Va.	June 30, 2015
<b>Stephen A. Musselwhite</b> <i>Rector</i> Vinton, Va.	June 30, 2012	<b>Thomas E. Fraim, Jr.</b> Norfolk, Va.	June 30, 2012
<b>Mark R. Pace</b> <i>Vice Rector</i> Roanoke, Va.	June 30, 2012	<b>Milton C. Johns</b> Gainesville, Va.	June 30, 2014
<b>Nancy E. Artis</b> Pagosa Springs, Colo.	June 30, 2013	<b>Darius A. Johnson</b> Richmond, Va.	June 30, 2013
<b>Anthony R. Bedell</b> Fairfax, Va.	June 30, 2012	<b>Wendy S. Tepper</b> Forest, Va.	June 30, 2014
<b>J. Brandon Bell</b> Roanoke, Va.	June 30, 2013	<b>Ronald R. Wesley</b> Richmond, Va.	June 30, 2012
<b>Stephan Q. Cassaday</b> Great Falls, Va.	June 30, 2014	<b>Linda K. Whitley-Taylor</b> Virginia Beach, Va.	June 30, 2014
<b>Matthew B. Crisp</b> Cary, N.C.	June 30, 2015	Two non-voting members are selected each year: one representing the faculty and one representing the student body.	
<b>Sandra C. Davis</b> Blacksburg, Va.	June 30, 2015	Secretary to the Board of Visitors: <b>Kimberly H. Chiapetto</b>	

## ADMINISTRATION

**Penelope W. Kyle**  
President

**Sam Minner**  
Provost and Vice President for Academic Affairs

**Richard S. Alvarez**  
Vice President for Finance and Administration and Chief Financial Officer

**Danny M. Kemp**  
Vice President for Information Technology and Chief Information Officer

**Jo Ann Kiernan**  
Special Assistant to the President

**Mark Shanley**  
Vice President for Student Affairs

# FACULTY

The following is a list of the 2011-2012 full-time faculty with teaching appointments and library faculty. An asterisk indicates graduate faculty.

## COLLEGE OF BUSINESS AND ECONOMICS

### Accounting, Finance, and Business Law

**Davidson,\* Daniel V.**, Chair and Professor of Business Law; B.S., J.D., Indiana University

**Amenkhienan,\* Felix E.**, Professor of Accounting; B.B.A., M.B.A., Ph.D., University of Mississippi; CMA

**Beach,\* Steven L.**, Associate Professor of Finance; B.S., M.B.A., Tennessee Technological University; Ph.D., Washington State University

**Brinckman, Douglas E.**, Associate Professor of Business Law; B.A., Virginia Polytechnic Institute and State University; J.D., Gonzaga University School of Law; Recipient of 1982 Radford University Foundation Award for Excellence in Teaching

**Chase,\* Bruce W.**, Professor of Accounting; B.S., M.B.A., Ph.D., Virginia Commonwealth University; CPA

**Chatham,\* Michael D.**, Associate Professor of Accounting; B.S.B., M.B.A. Emporia State University; Ph.D., Oklahoma State University; CPA

**Grossmann,\* Axel**, Assistant Professor of Finance; B.S., M.B.A., Ph.D., The University of Texas Pan-American

**Hernandez,\* Rodrigo J.**, Assistant Professor of Finance; M.A., M.S., Ph.D., University of Arkansas

**Kaushik, Abhay**, Assistant Professor of Finance; B.S., M.B.A., Ph.D., Florida Atlantic University

**Rose,\* Clarence C.**, Professor of Finance; B.S., Ferris State University; M.B.A., Central Michigan University; Ph.D., Virginia Polytechnic Institute and State University

**Roybark, Helen**, Associate Professor of Accounting; B.A., Saint Leo University; M.S., Old Dominion University; Ph.D., Virginia Commonwealth University; CPA, DFE, Ed.S.

**Saubert,\* Lynn K.**, Professor of Accounting; B.B.A., University of Wisconsin – Whitewater; M.B.A., Ph.D., University of Wisconsin – Madison; CPA, CMA

**Saubert, R. Wayne**, Professor of Accounting; B.S., University of Kansas; J.D., Drake University School of Law; M. Accountancy, Virginia Polytechnic Institute and State University; Recipient of 1996 Radford University Foundation Award for University Service

### Economics

**Santopietro, George D.**, Interim Associate Dean and Chair and Professor of Economics; B.A., George Washington University; M.S., University of Minnesota; Ph.D., Virginia Polytechnic Institute and State University

**Dendir, Seife**, Associate Professor of Economics; B.A., Addis Abada University; M.A., Ph.D., Western Michigan University

**Hashemzadeh,\* Nozar**, Professor of Economics; B.A., Isfahan University; M.A., Ph.D., Virginia Polytechnic Institute and State University

**Kasturi,\* Prahlad**, Professor of Economics; B.S., Andhra Pradesh Agricultural University, India; M.S., Ph.D., University of Hawaii

**Orlov,\* Alexei**, Associate Professor of Economics; B.S., Moscow State Civil Engineering University; M.A., Ph.D., University of Virginia

**Saleh, Basel**, Assistant Professor of Economics; B.B.A., Bethlehem University; M.Sc., University of North Texas; Ph.D., Kansas State University

**Srinivas, Sumati**, Associate Professor of Economics; B.A., Delhi University; M.A., Ph.D., University at Albany, State University of New York

**Toh, Kiertisak**, Special Purpose Faculty, Assistant Professor of Economics; B.S., M.A., University of Maryland; M.A., National Defense University; Ph.D., University of Maryland

**Vehorn,\* Charles**, Assistant Professor of Economics; B.A., University of Notre Dame; M.A., University of Arkansas; Ph.D., Ohio State University

## **Management**

**Harrington,\* K. Vernard**, Associate Professor of Management; B.B.A., University of Iowa; M.S., Iowa State University; Ph.D., Texas A&M University

**Anderson, Lori**, Special Purpose Faculty, Assistant Professor of Management; B.A., Wingate University; M.Ed., Ph.D., Virginia Polytechnic Institute and State University

**Beheshti,\* Hooshang M.**, Professor of Management; B.S., Iranian Institute of Advanced Accounting; M.S., State University of New York at Binghamton; Ph.D., Oklahoma State University; Recipient of 1995 Radford University Foundation Award for Creative Scholarship

**Blaylock,\* Bruce K.**, Professor of Management; B.B.A., Ohio University; M.B.A., Auburn University; Ph.D., Georgia State University

**Brown,\* Jo Ann E.**, Associate Professor of Management; B.S. B.A., Christian Brothers University; M.B.A., University of Florida; Ph.D., University of Mississippi, Oxford

**Childers,\* J. Stephen Jr.**, Associate Professor of Management; B.S., B.A., M.B.A., East Carolina University; Ph.D., Virginia Polytechnic Institute and State University

**Clelland,\* Iain J.**, Associate Professor of Management; B.A., M.S., San Diego State University; Ph.D., University of Southern California

**Fetter, Gary M.**, Assistant Professor of Management: B.S. B.A., Bloomsburg University, M.B.A., Ohio State University, Ph.D., Virginia Polytechnic Institute and State University

**Henderson,\* Dale A.**, Chair, Associate Professor of Management; B.S., B.S., Virginia Polytechnic Institute and State University; M.B.A., Radford University; Ph.D., University of Nebraska-Lincoln

**Kopf,\* Jerry M.**, Professor of Management; B.S., B. A., M.B.A., Ph.D., University of Arkansas

**Kunkel, Danylle R.**, Assistant Professor of Management, B.A., University of Central Florida, Ph.D., Virginia Polytechnic Institute and State University

**Shockley, T. Jeff**, Assistant Professor of Management; B.A., University of Richmond; M.B.A., University of Arizona; Ph.D., Clemson University

**Wang, Shuhong**, Assistant Professor of Management; B.A., Central University of Finance and Economics, China; M.S., Baylor University; Ph.D., University of Illinois

**Zarankin, Tal G.**, Assistant Professor of Management; L.L.B., The College of Management-School of Law, Israel; L.L.M., Bar-Ilan University; L.L.M., Ph.D., University of Missouri

## **Marketing**

**Lollar,\* James G.**, Chair and Associate Professor of Marketing; B.S., M.A., Ph.D., University of Alabama; Recipient of 2005 Donald N. Dedmon Professorial Award

**Bienstock,\* Carol C.**, Associate Professor of Marketing; B.S., Medical College of Georgia; M.B.A., Mississippi State University; Ph.D., Virginia Polytechnic Institute and State University

**Gilbert, Faye W., Dean**, College of Business and Economics; Professor of Marketing; B.S., B.A., M.B.A., University of Southern Mississippi; Ph.D., University of North Texas

**Herrington,\* J. Duncan**, Professor of Marketing; B.B.A., M.B.A., D.B.A., Mississippi State University

**Lachowicz, Thomas**, Special Purpose Faculty, Instructor of Marketing; B.A., University of Maryland; M.B.A., Radford University; Ph.D., Virginia Polytechnic Institute and State University

**Schirr,\* Gary R.**, Assistant Professor of Marketing; B.S., Miami University; M.S., Carnegie Mellon University; Ph.D., University of Illinois at Chicago

**Stanaland, Andrea J.S.**, Associate Professor of Marketing; B.B.A., M.B.A., University of Texas at Austin; Ph.D., University of Houston

**Stanton,\* Angela D.**, Associate Professor of Marketing; B.S., M.B.A., Ph.D., Old Dominion University, Recipient of 2010 Donald N. Dedmon Professorial Award

**Stanton,\* Wilbur W.**, Professor of Marketing; B.B.A., M.B.A., M.D.S., Ph.D., Georgia State University

**Taylor, Robert L.**, Professor of Marketing; B.A., Arkansas Tech University; M.B.A., Ph.D., University of Arkansas

**Thakkar, Maneesh B.**, Assistant Professor of Marketing; B. Comm., M.S., University, India; M.B.A., Gujarat University; Ph.D., City University of New York

**Tong,\* Hsin-Min**, Professor of Marketing; B.S., Tunghai University; M.S., Fort Hays State University; Ph.D., University of Nebraska-Lincoln

## COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT

### Counseling and Human Development

**Forrest,\* Alan**, Chair and Professor of Counseling and Human Development; B.A., Eisenhower College; M.A., University of New Haven; Ed.D., College of William and Mary

**Eckenrod-Green,\* Wendy**, Assistant Professor of Counseling and Human Development; B.S., M.S., Appalachian State University; Ph.D., University of North Carolina at Charlotte

**Emerson,\* Carla**, Special Purpose Professor of Counseling and Human Development; B.A., Guilford College; M.S., Ed.S., Ph.D., University of North Carolina at Greensboro

**Gumaer,\* D. James**, Professor of Counseling and Human Development; B.S., State University of New York at Cortland; M.S., Syracuse University; Ed.S., Ed.D., University of Florida

**Hartig,\* Nadine**, Assistant Professor of Counseling and Human Development; B.A., M.S., University of Wisconsin; Ph.D., University of Northern Colorado

**Hudgins,\* Cathy**, Special Purpose Professor of Counseling and Human Development; B.A., University of Texas at San Antonio; M.A., University of Tennessee; Ph.D., Virginia Polytechnic Institute and State University

**Scott,\* William R.**, Assistant Professor of Counseling and Human Development; B.A., Mary Washington College and Lehigh University; M.A., Vermont College of Norwich University; Ph.D., Virginia Polytechnic Institute and State University

**Steigerwald,\* Fran J.**, Associate Professor of Counseling and Human Development; B.S.E., St. John College; M. Ed., Cleveland State University; Ph.D., Ohio University

### Exercise, Sport and Health Education

**Zeakes, Beverly**, Chair and Professor of Exercise, Sport and Health Education; B.S., Kansas State University; M.S., Radford University; Ed.D., Virginia Polytechnic Institute and State University

**Alexander, Anne R.**, Professor of Nutrition and Dietetics; B.A., M.S.P.H., University of California-Los Angeles; Ph.D., Oregon State University

**Ayers, Kevin**, Assistant Professor of Exercise, Sport, and Health Education; B. S., University of North Carolina at Charlotte; M.S., The Citadel; Ed.D., Florida State University

**Beasley,\* Jerry L.**, Professor of Exercise, Sport and Health Education; B.A., M.S., C.A.G.S., Ed.D., Virginia Polytechnic Institute and State University

**DeVito, Anna**, Assistant Professor of Exercise, Sport, and Health Education; B.A., State University of New York at Oswego; M.Ed., Bowling Green University; Ph.D., Syracuse University

**Grim, Melissa L.**, Associate Professor of Exercise, Sport, and Health Education; B.S., Bowling Green State University; M.A., Ph.D. The Ohio State University

**Mickle, Angela M.**, Director of Athletic Training Education and Associate Professor of Exercise, Sport and Health Education; B.S., New Mexico State University; M.S., University of Oklahoma; Ph.D., New Mexico State University

**Miller, Mary Jean**, Coordinator of Didactic Program in Dietetics and Assistant Professor of Nutrition and Dietetics; B.S., M.S., James Madison University

**Miller, Susan M.**, Instructor of Exercise, Sport and Health Education; B.S., Winthrop University; M.A., Wake Forest University; C.A.G.S., Virginia Polytechnic Institute and State University  
**Moore, Michael B.**, Assistant Professor of Exercise, Sport and Health Education; B.S., M.S., Radford University; Ph.D., Virginia Polytechnic Institute and State University  
**Newsome, Laura**, Instructor of Exercise, Sport and Health Education; B.Sc., University of Waterloo; M.S., Wake Forest University  
**Pazmino-Cevallos, Monica**, Associate Professor of Exercise, Sport and Health Education; B.A., Rutgers; M.A., Adelphi University; Ph.D., The University of Southern Mississippi  
**Poole, Jon R.**, Associate Professor of Exercise, Sport and Health Education; B.S., Colorado State University; M.S., Ed.D., Virginia Polytechnic Institute and State University  
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## **WALDRON COLLEGE OF HEALTH AND HUMAN SERVICES**

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## **COLLEGE OF HUMANITIES AND BEHAVIORAL SCIENCES**

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## COLLEGE OF VISUAL AND PERFORMING ARTS

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### **Interior Design & Fashion**

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