

## 2013-2014 B.S. Biology – Medical Laboratory Sciences Concentration

NAME \_\_\_\_\_ ID# \_\_\_\_\_

### UNIVERSITY CORE

#### A. Core Foundations

CORE 101 \_\_\_\_\_ 3  
 CORE 102 \_\_\_\_\_ 3  
 CORE 103\* \_\_\_\_\_ 3  
 CORE 201 \_\_\_\_\_ 3  
 CORE 202 \_\_\_\_\_ 3

**NOTE:** Courses listed in multiple areas can only be used to fulfill a single area requirement.

Students can use only one course with their major prefix to fulfill core requirements.

\* Honors course – will replace CORE 101 & 102 for those students in the RU honors program

Core Curriculum

#### B. Core Skills & Knowledge

Courses must be from different disciplines:

##### MATHEMATICAL SCIENCES (3SH)

MATH 119,138, or 151 \_\_\_\_\_ 3

##### NATURAL SCIENCES (4 SH)

CHEM 101 \_\_\_\_\_ 4

##### HUMANITIES (3 SH)

\_\_\_\_\_ 3

One of the following: ENGL 200, HIST 101, 102 PHIL 111, 112, 114 POSC 110; RELN 111, 112, 200, 202, 206

##### SOCIAL/BEHAV. SCIENCES (3 SH)

\_\_\_\_\_ 3

One of the following: ANSC 101, APST 200 ECON 105, 106 GEOG 101, 102, 103 HIST 111, 112 POSC 120; PSYC 121 RELN 205 SOCY 110, 121

##### VISUAL & PERFORMING ARTS (3 SH)

\_\_\_\_\_ 3

One of the following: ART 111, 215, 216 CVPA 266 DNCE 111 MUSC 100, 121, 123 THEA 100, 180

### COLLEGE CORE

#### A. National & International Perspectives

Courses must be from different disciplines:

##### U. S. PERSPECTIVES (3 SH)

\_\_\_\_\_ 3

One of the following: APST 200 ECON 101, 105, 106, ENGL 203 GEOG 201, 202, 203 HIST 111, 112 POSC 120, SOCY 110

##### GLOBAL PERSPECTIVES (3SH)

\_\_\_\_\_ 3

One of the following: ENGL 201,202; FORL 103; CVPA 266, GEOG 101, 102, 140, 280 HIST 101, 102 INST 101 ITEC 112 PEAC 200 RELN 112, 205, SOCY 121, THEA 180 WMST 101

#### B. Supporting Skills & Knowledge

##### NATURAL SCI. OR MATHEMATICAL SCIENCES (3-4 SH)

STAT 219 \_\_\_\_\_ 3

##### HUMANITIES, VISUAL & PERFORMING ARTS, OR FOREIGN LANGUAGES (3-4 SH)

\_\_\_\_\_ 3

One of the following: ENGL 200; HIST 101, 102; PHIL 111, 112, 114; POSC 110; RELN 111, 112, 203, 206 Or ART 111, 215, 216; CVPA 266; DNCE 111; MUSC 100, 121, 123; THEA 100, 180 Or CHNS 101, 102, 201, 202 FORL 100, 109, 200, 209, 210, 309, 409; FREN 100, 200, 210, 300, 320 GRMN 100, 200, 210, 300 LATN 101,201, 350; RUSS 100, 200, 210, 300; SPAN 101: 102, 201, 202

##### SOCIAL/ BEHAV. SCI. OR HEALTH & WELLNESS (3SH)

\_\_\_\_\_ 3

One of the following: ANSC 101, APST 200 ECON 105, 106 GEOG 101, 102, 103 HIST 111, 112 POSC 120; PSYC 121 RELN 205 SOCY 110, 121 HLTH 111,200 NURS 111 NUTR 214; RCPT 200

### Medical Technology CONCENTRATION

BIOL 131	_____ (4)	Ecology and Adaptation
BIOL 132	_____ (4)	Biology of Cells and Microorganisms
BIOL 160	_____ (2)	Introductory Seminar in Biology
BIOL 460	_____ (2)	Advanced Seminar in Biology
BIOL 231	_____ (4)	Genetics, Evolution, and Development
CHEM 101	_____ (4)	General Chemistry
CHEM 102	_____ (4)	General Chemistry
STAT 219	_____ (3)	Statistics for Biology
MATH 119/138/151	_____ (3)	Math Core Curriculum see above
BIOL 337	_____ (4)	Immunology
BIOL 408	_____ (4)	Prin of Microbiology
BIOL 410	_____ (6)	Human Anatomy/ Physiology Science Maj.
BIOL 450	_____ (4)	Molecular Biology

BIOL 401,402,403 \_\_\_\_\_ (33)  
 Blood Banking  
 Hematology and Coagulation  
 Clinical Chemistry

Medical Technology

Clinical Courses are taken at the hospital in the following areas:  
 Serology  
 Bacteriology  
 Parasitology/Clinical Microscopy

#### B.S. Requirements: (8 hours)

CHEM 301	_____ (4)	Organic Chemistry	F	CHEM 102
CHEM 302	_____ (4)	Organic Chemistry	S	CHEM 301

### Prerequisites

#### C or better required in all BIOL prerequisites

F/S	
F/S	131(majors) or "C" or better in CHEM 101
F/S	Freshmen only
F/S	BIOL 131, 132, 231 and 232 (232 may be concurrent)
F/S	BIOL 132 and 160
F/SU	
S/SU	CHEM 101
F/S/SU	
S	BIOL 132:232
F	BIOL 105 or BIOL 132:231
F/S/SU	BIOL 231 and CHEM 120 or 101:102

## Sample Schedule B.S. Biology – Medical Laboratory Sciences Concentration 13/14

Biology majors concentrating in Medical Technology take three years of Academic Courses at Radford and spend their senior year (12 months) completing a clinical internship at one of the hospitals affiliated with RU. Students must apply to the hospital at which they wish to complete their clinical coursework. The application process is selective. **Students should have GPA of 2.5 or higher in all math and science courses in order to be considered competitive for admission to a clinical internship site.**

Fall Semester		Spring Semester			
<b>Freshman Year</b>	<b>Cr.</b>	<b>Freshman Year</b>	<b>Cr.</b>		
University Core A: Core 101	3	University Core A: Core 102	3		
BIOL 131	4	BIOL 132 "C" or better in 131 (majors) or C or better in CHEM 101	4		
CHEM 101*	4	CHEM 102*	4		
BIOL 160	2	CORE	3		
Math 119, 138, or 151	3	STAT 219	3		
*If recommended	<b>16</b>	*If recommended	<b>17</b>		
Declared Biology majors must earn a grade of "C" or better in BIOL 131, 132, 231, before admission to biology electives requiring these courses as prerequisites. Students who enter the major as a freshman must take BIOL 160, those who transfer or change majors after this freshman year will take BIOL 460 instead.					
<b>Sophomore Year</b>	<b>Cr.</b>	<b>Sophomore Year</b>	<b>Cr.</b>		
University Core A: Core 201	3	University Core A: Core 202	3		
BIOL 231	4	BIOL 408 "C" or better in 132:231	4		
CHEM 301 (F ONLY) CHEM 101, 102 (B.S. Requirement)	4	CHEM 302 (S ONLY) CHEM 301 (B.S. Requirement)	4		
CORE	3	General Elective	3		
	<b>14</b>		<b>14</b>		
CORE 101, 102, 201, and 202 must be completed in succession. Students should complete CORE 202 prior to their Junior year.					
<b>Junior Year</b>	<b>Cr.</b>	<b>Junior Year</b>	<b>Cr.</b>		
CORE	3	CORE	3		
BIOL 450 (F ONLY) CHEM 102 & BIOL 231 or BIOL 334	4	BIOL 337 (S ONLY) BIOL 132 and 232	4		
CORE	3	BIOL 410 C or better in BIOL 231 and CHEM 101:102	4		
CORE	3	CORE	3		
	<b>13</b>		<b>14</b>		
Clinical Courses are taken at the hospital in the following areas: Blood Banking, Hematology and Coagulation, Clinical Chemistry, Serology, Bacteriology, Parasitology, Clinical Microscopy					
<b>Summer</b>	<b>Cr.</b>	<b>Fall</b>	<b>Cr.</b>	<b>Spring</b>	<b>Cr.</b>
BIOL 401 Medical Technology	11	BIOL 402 Medical Technology	11	BIOL 403 Medical Technology	11
	<b>11</b>		<b>11</b>		<b>11</b>