

2015-2016 B.S. Biology – Pre-Health Concentration

NAME _____ ID# _____

UNIVERSITY CORE

COLLEGE CORE

A. Core Foundations

CORE 101 _____ 3
 CORE 102 _____ 3
 HNRS 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 meet CORE 101 & 102 for those students in the RU honors program

B. Core Skills & Knowledge

Courses must be from different disciplines:

MATHEMATICAL SCIENCES (3 SH)

MATH 119, 138, or 151
 _____ 3

NATURAL SCIENCES (4 SH)

CHEM 101 _____ 4

HUMANITIES (3 SH)

_____ 3
 One of the following: CLSS 110 CCST 110 ENGL 200, HIST 101, 102 PHIL 111, 112, 114 POSC 110; RELN 111, 112, 203, 206

VISUAL & PERFORMING ARTS (3 SH)

_____ 3
 One of the following: ART 100, 215, 216 CVPA 266 DNCE 111 MUSC 100, 121, 123 THEA 100, 180

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

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 (3 SH)

_____ 3
 One of the following: CVPA 266; ENGL 201,202; FORL 103; 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 SCIENCES OR MATH (3-4 SH)

STAT 219 _____ 3

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

_____ 3-4
 One of the following: CLSS 110 CCST 110 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 ARAB 100,200, 210 FORL 100, 109, 200, 209, 210, 309, 409; FREN 100, 200:210, 300, 320 GRMN 100, 200: 210, 300 LATN 101, 102, 201, 350 RUSS 100, 200, 210, 300; SPAN 101, 201, 202

SOCIAL/ BEHAV. SCI. OR HEALTH & WELLNESS (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 HLTH 111,200 NURS 111 NUTR 214 RCPT 200

Pre-Health CONCENTRATION

BIOL 160* _____ (2)	Introductory Seminar in Biology	F/S
BIOL 460* _____ (2)	Advanced Seminar in Biology	F/S
*OR Transfer students or others who do not take BIOL 160 must take 4 hours of BIOL 460 (2:2) or 2 hours BIOL 460 plus one additional 3XX/4XX level BIOL elective (excluding BIOL 310, 311, 322, 334, 491, 492 and 495).		
BIOL 131 _____ (4)	Ecology and Adaptation	F/S
BIOL 132 _____ (4)	Biology of Cells and Microorganisms	F/S
BIOL 231 _____ (4)	Genetics, Evolution, and Development	F/S
BIOL 232 _____ (4)	Organismal Biology	F/S
BIOL 131, 132, 231 and 232 may only be taken TWICE, and must be completed with C or higher before taking any 3XX or 4XX level BIOL Electives.		
CHEM 101 _____ (4)	General Chemistry	F/S/SU
CHEM 102 _____ (4)	General Chemistry	S/SU
STAT 219 _____ (3)	Statistics for Biology	F/S/SU
MATH 119/138/151 _____ (3)	MATH 151 highly recommended	F/S/SU

Prerequisites (BIOL prerequisites require "C" or better)

Freshmen only
 BIOL 131, 132, 231, and 232 (232 may be concurrent)
 "C" or better in BIOL 132
 "C" or better in BIOL 131

Physics Requirement

Choose one of the following two combinations:

PHYS 111:112 _____ (4) _____ (4)	General Physics	F/S	MATH 137 or equivalent
OR			
PHYS 221:222 _____ (4)	Physics	F/S	MATH 151

Microscopic Biology Requirement

Choose one of the below options:

BIOL 408 _____ (4)	Principles of Microbiology	F/S	BIOL 132 and 231
OR			
BIOL 450 _____ (4)	Molecular Biology	F	CHEM 102 & BIOL 231 or BIOL 334

Physiology Requirement

BIOL 410:411 _____ (4:4)	Human Anatomy and Physiology for Science Majors I and II		C or better in BIOL 231 and C or better in CHEM 101:102
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Biochemistry Requirement

BIOL 471 _____ (4)	Biochemistry	F	BIOL 105 or 132; CHEM 302
BIOL 472* _____ (3)	Biochemistry	S	BIOL 471

*BIOL 472 is not required but highly recommended

A minimum of 7 credit hours chosen from the below courses: (Courses taken for requirements listed above may not also be counted as electives)

BIOL 301 Bioethics (2)	BIOL 419 Introduction to Molecular Bioinformatics (3)	BIOL 472 Biochemistry II (4)
BIOL 337 Immunology (4)	BIOL 430 Genes and Development (3)	BIOL 477 Neuroscience (4)
BIOL 351 Comparative Animal Physiology (4)	BIOL 432 The Eukaryotic Cell (4)	BIOL 478 Endocrinology (4)
BIOL 361 Parasitology (4)	BIOL 433 Cancer Biology (4)	BIOL 479 Medical Physiology (3)
BIOL 405 Histology (4)	BIOL 434 Evolutionary Development (3)	BIOL 491 Directed Study and Research (1-6)
BIOL 408 Principles of Microbiology (4)	BIOL 450 Molecular Biology (4)	BIOL 492 Undergraduate Research (1-6)

B.S. Requirements: (8 hours)

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

Graduation Requirements: Students must attain a minimum 2.0 in major and overall GPA in order to graduate. Major GPA is calculated using grades received in Biology 131, 132, all Biology courses 200 level or higher, all courses outside of Biology used as electives (including: CHEM 471:472 and Physics if used as elective) and/or any course used as an elective by academic petition. Students are required to complete a minimum of 120 credit hours.