GENERAL EDUCATION – 33 credits

I. Skills/Processes for Literacy (3 courses)	
A. INTD 101 University Seminar	
B. ENGL 101 Composition: Theme Writing	
C. ENGL 104 Composition: The Essay	
II. HUMANITIES (5 courses)	
A. Fine Arts (1 course): Art, Music, Performance, Aesthetics	
B. Literature/Language (1 course): ENGL or Foreign Language	
C. Philosophy (1 course)	
D. Humanities Electives (2 courses)	
1. HUM 101/301 or HIST 131/331	
2. One additional elective from ENGL, The Arts/Aesthetics, Foreign Language, HUM,PHIL,REL	
III. SOCIAL SCIENCE (3 courses)	
A. American History or Government	
B. Social Science Electives (2 courses from ECON, GEOG, HIST, PSCI, PSYC, SOC)	
IV. Natural Science/Quantitative Reasoning (met through major)	
V. General Education Electives (2 courses): From with-in the College of Arts and Sciences	

TIMING F = Fall S = spring

* denotes that the course is offered every other year

PREREQUISITES

@=117/118 # = 260 $ = 270
& = 316 > = 101/102 !=394

COREQUISITES

% = 260 ^ = 270 a = 394

In order to graduate 128 credit hours must be completed.

Last 30 credit hours must be completed in residency.

See page 2 for required and recommended courses for specific career tracks and popular minor possibilities

Students must complete all core classes and the courses from the upper level baskets: All students must complete a minimum of 42 credits under the BIOL prefix to earn a degree

3+1 BS MLS –Designed for transfers or incoming students entering with credits.

BS Biology with MLS Concentration – Designed for students that are not accepted into an MLS Internship.

4+1 BS Biology/MLS Double major – Complete 128 total hours to earn a Biology degree PLUS the MLS Internship

BIOLOGY CORE REQUIREMENTS (18-19 Credits)

BIOL 117 General Biology I (4) F/S		BIOL 118 General Biology II (4) S/F	
BIOL 260 General Genetics (4) F/S @		BIOL 270 Evolution (4) S #	
BIOL 499-MLS Internship (36) – Students must be accepted into an affiliated AND accredited program		If students are not entering an internship then SCI 498-Advanced Topics (2) S, BIOL 401 Research 1 (3) F/S @	

UPPER LEVEL BASKETS – REQUIRED FOR ALL MLS MAJORS

FALL		**SPRING**	
BIOL 101 Anatomy and Physiology (4) F/S Ω		BIOL 102 Anatomy & Physiology 2 (4) S Ω	
BIOL 394 Advanced Physiology (3) F @ or >		BIOL 351 Cell Biology (4) S @	
BIOL 316 General Microbiology (4) F/S # β		BIOL 354 Immunology (3) S*&	
CHEM 320 Biochemistry (4) F		one other course	
3+1 MLS Majors must complete 46 credits in Biology and the 36 hour internship for a BS MLS degree completion		Application to MLS Internship may occur up to one year prior to anticipated start of internship at the permission of the MLS Director	

ADDITIONAL COURSES **Suggested choices** for the 4+1 BS Biology and MLS Double Major **Optional choices** for BS Biology with MLS Concentration Students may take other courses offered in the Biology or Chemistry programs rather than suggested or optional choices after discussion with advisor. Math, Biology and Chemistry courses must include a minimum of 84 credits.			
BIOL 390 Biotechnology (4) F #		BIOL 395 Pathophysiology (3) S*! *optional but strongly recommended*	
CHEM 353–Quantitative Analysis (4) F		BIOL 100 – Intro to Clinical Lab Science (2) S *optional but strongly recommended*	
CHEM 410 – Instrumental Analysis (4) S		BIOL 391 - Molecular Genetics (4) S* ^	
		CHEM 321 - Biochemistry II (3)S*	

NON-BIOLOGY SCIENCE AND MATH REQUIREMENTS

MATH 151 Calculus I (4) F *(recommended)* **OR** MATH 125 College Algebra & Trigonometry (3) F/S		MATH 141 Elementary Stats (3) F/S **OR** MATH 420 Statistics for Science Research (3) S **OR** PSYC 341 Understanding Statistical Inference	
PHYS 153 Calculus-Based Physics 1 (4) S *(recommended)* **OR** PHYS 103 Gen. Physics I (4) S		PHYS 154 Calculus-Based Physics II (4) S *(recommended)* **OR** PHYS 104 Gen. Physics II (4) S	
CHEM 103 General Chemistry I (4) F/S		CHEM 104 General Chemistry II (4) S	
CHEM 203 Organic Chemistry I (4) F		CHEM 204 Organic Chemistry II (4) S	

Ω - Transfer students may substitute BIOL 115 or BIOL 350 with permission of MLS Director

β - Transfer students may substitute BIOL 104 with permission of MLS Director

Alternate Course Offerings

Fall Even Years – Conservation Biology, Comparative Vertebrate Anatomy
Fall Odd Years – Ecology, Zoology, Physical Chemistry 1
Spring Even Years – Pathophys, Ex Science, Plants and People, Immunology, Ornithology, Physical Chemistry 2, Inorganic Chemistry
Spring Odd Years – Intro to Gross, Molecular Genetics, Botany, Biochem II

128 Credit hours _____ Major Requirements _____ Minor Requirements _____ Last 30 hr. residency

Concentrations of the Biology Major	Biology Major: Pre-Health Professions Career Tracks Required and/or Recommended Course Material		
Biomedical Science	**Medical School & Physician Assistant School**	**Physical Therapy School**	**Veterinary Medicine School**
Core plus four courses from the Anatomy and Physiology Basket and two courses from the Molecular Biology and Microbiology Basket AND CHEM 320 and BIOL 354.	BIOL 101/102, BIOL 351, CHEM 320, SOC 101, PSYC 101, some programs require two semesters of calculus. Some programs like to see microbiology, immunology, and pathophysiology.	BIOL 101/102, 300-level (to include either cell, immuno, micro, molecular genetics) BIOL 394, ISYS 100, HEPR 108, PSYC 101, PSYC 254 Some programs require an additional human anatomy course. Additional Requirements: Min recommended GPA 3.5 GRE, PT Volunteer Experience	One Ecology course, BIOL 101/102, BIOL 303, CHEM 320, BIOL 316, BIOL 351, BIOL 394 & Mammalian Physiology Lab. ECON 202, PSYC 101, SCI 131, BIOL 304 – Zoology
Applied Microbiology			
Core plus five courses from the Molecular and Microbiology Basket to include BIOL 316, Microbiology 2, BIOL 351, BIOL 390, Applied Microbiology AND CHEM 320 and CHEM 353, PSYC 472, and Applied Statistical Analysis.			
SUSTAINABILITY & ENVIRONMENTAL STEWARDSHIP	**Dental School**		**Pharmacy School**
Core plus 4 courses from the following: SUST 101, SUST 150, SUST 201, SUST 350, SUST 375, and two courses from the Ecology basket, plus one from one of the other baskets, plus HIST 325, HIST 475, and SCI 250. A Chemistry minor is strongly recommended but not required.	BIOL 101/102, BIOL 316, BIOL 394, CHEM 320, SOC 101, PSYC 101, ECON 202, a second semester of Calculus is required for some schools.		BIOL with labs 8-12 hours CHEM (Gen and Org) 8 hours, Physics 8 hours, English 6-12 hours
Biotechnology	**Podiatry School**		**Optometry School**
Core plus four courses from the Molecular Biology and Microbiology Basket and two courses from one or more baskets. CHEM 320 and one other CHEM course 300 or higher. .	BIOL with labs 8-12 hours CHEM (Gen and Org) 8 hours, Physics 8 hours, English 6-12 hours		BIOL 101/102, CHEM 320 and BIOL 316, ECON 202, PSYC 101. Calculus and Calculus- based Physics required
Popular Minors			
Chemistry Minor			
Psychology Minor			
Coaching Minor			
Education Minor			
Business Administration Minor			
Information Systems Minor			
Computational Science Minor			