Curriculum in General Biology

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Freshman Fall Semester

Course	Course Name	Cr
BIOL 101	Organisms[$]	4
CHEM 101	General Chemistry I	4
ENGL101	**English Composition I**	3
XX xxx	**Social Science**	3
BIOL191	**University Seminar I**	1
	Total Credits	15

Freshman Spring Semester

Course	Course Name	Cr
BIOL 202	Evolution, Ecology, and Diversity[$]	4
CHEM 102	General Chemistry II	4
ENGL 102	**English Composition II**	3
MTSC 122	**Trigonometry**	3
BIOL 192	**University Seminar II**	1
BIOL 194	Intro. to Biology Professions	1
	Total Credits	16

Sophomore Fall Semester

Course	Course Name	Cr
BIOL 215	Cell Biology	4
CHEM 210	Organic Chemistry I	4
MVSC 100	**Fitness and Wellness**	2
BIOL 321	Biostatistics	3
ENGL 200	Speech	3
	Total Credits	16

Sophomore Spring Semester

Course	Course Name	Cr
BIOL 210	Genetics	4
CHEM 211	Organic Chemistry II	4
ENGL 2xx	**Literature**[#]	3
HIST xxx	**History**[#]	3
BIOL 299	Soph. Seminar – Sci. Literature	1
	Total Credits	15

Junior Fall Semester

Course	Course Name	Cr
BIOL 310	Molecular Biology	4
BIOL 205	Ecology	4
BIOL xxx	**Biology Elective**	4
PHYS 111	Introduction to	4

Junior Spring Semester

Course	Course Name	Cr
CHEM 403	Biochemistry (offered in spring) **OR**	
BIOL 422	Biochemical Mechanisms (offered in fall)	4
GLOB 395	**Global Societies**	3
PHYS 112	Introduction to	4

	Physics I			Physics II	
BIOL 301	Problems in Biology (optional)		BIOL 399	Junior Seminar-Sci. Writing*	1
			BIOL xxx	Biology Elective	4
	Total Credits	16		Total Credits	16

Summer: Research Internship

Senior Fall Semester			**Senior Spring Semester**		
Course	Course Name	Cr	Course	Course Name	Cr
XX xxx	**Arts and Humanities**[#]	3	XX xxx	**Arts and Humanities**[#]	3
BIOL xxx	Biology Elective	4	BIOL xxx	Biology Elective	4
BIOL xxx	Biology Elective	4	XX xxx	Open Elective	3-4
BIOL 451	Senior Research (Capstone I)**	2	XX xxx	Open Elective	3-4
			23-499	Senior Seminar (**Capstone** II)**	1
	Total Credits	13		Total Credits	14-16

Total Credits: 121-123

** Senior Capstone (if BIOL 301 or internship already completed, 451 can be waived but not 499)
* Writing Intensive Course(s)

[#]One of these must be used to meet the African American (Gen Ed) Experience

[$]General Biology I and II (BIOL 101 and 102) together can substitute for BIOL 201 and 202

BIOLOGY ELECTIVES: Students must not take less than 18 credits of Biology courses from the course elective list below. These are the only ones that can satisfy the Biology elective requirement for this track. Substitutions can be requested, under special circumstances, but written approval of advisor and Chair is needed.

The Curriculum Tracks are designed for the intended career goal, including anticipation of entrance examinations, so students should adhere to the suggested sequence. It is advisable for the student to check possible post graduate school requirements during their Junior year to ensure that satisfy expectations of intended graduate/profession choices.

REQUIREMENTS: Students must take each of the five biology core courses (201-202-215-210-310) in sequence and earn a grade of “C” or higher in each respectively before being able to progress to the next in the sequence (BIOL 101-102 can substitute for 201-202 but both of each group must be taken and same grade criteria apply). In order for a student to take any 300 or 400 level Biology Department course, he or she must have earned a grade of "C" or better in the first four core courses. These grade requirements take precedence over and supersede any lesser specific prerequisites of all 300 or 400 level Biology electives. All students must pass the Biology Comprehensive Assessment (BCA) examination of core courses given to all students in BIOL 399. If they do not pass, then the student must take BIOL 498 and pass the BCA, which is required for successful completion of this course, and the biology program.

TRANSFER CREDITS: Students who receive transfer credit for courses that are equivalent to BIOL 101 and BIOL102 will be considered to have met the prerequisite for BIOL 215. Students transferring with a grade of "C" or better in Anatomy & Physiology I (207) and Anatomy & Physiology II (208) and Microbiology (322) usually have one (1) Biology elective waived.

SPECIAL NOTES: For all programs and tracks, a grade of "C" or better is required for all Biology courses. For the Cell/Molecular/Biotechnology and for the Health Professions tracks, a grade of "C" or better is also required in all CMNST courses.

All Biology majors must complete an independent research project. Those who have completed a research project with a biology faculty member (e.g. 23-301 for credit, or via a paid stipend) prior to the beginning of their senior year, and especially if the project was an internship at another institution, the student must present their data to their advisor in order to be exempted from the required Senior Capstone I course. If they have not completed a research project, or their internship is inadequate, then they must register for 23-451or 452 to complete a Capstone research project.

If you take, 23-422 instead of 24-403, then you will need to take another Chemistry course if you want a minor in Chemistry – Instrumental Analysis (24-306) with lab is suggested. Another set of courses the student can consider is Physics-317 (Foundations of Bioengineering) and Physics 409 (Biosensors and Bio-instrumentation) as electives with advisor, instructor, and Biology Chair approval.

All Biology majors are required to successfully complete Senior Seminar (Capstone II, 23-499), no exceptions.

General Note: The minimum University requirement for graduation is 121 hours; in Biology you will usually complete between 121-125 hours depending on selections.

General Biology

Biology Electives: **(at least one from each group I, II, III)**	**Open Electives:**
23-200 Invertebrate Zoology (III)	30-311 Mammalogy
23-302 Comp. Vertebrate Anatomy (I)	30-312 Ornithology
23-305 Developmental Biology (I)	30-314 Ichthyology
23-315 Behavior (III)	30-465 Marine Biology
23-322 Microbiology (II)	30-456 Wetlands Biology
23-352 Histology (II)	29-205 Plant Physiology
23-420 Immunology (I)	29-212 General Botany
23-421 Microbial Physiol and Ecology (II)	29-213 Systematic Botany
23-205 Ecology (III)	

Source URL: http://desu.edu/curriculum-general-biology