

Biology (BS)

Degree Requirements

Majors in Arts and Sciences may be completed with a minimum of 120 semester hours unless designated otherwise. At least 30 hours of course work, which represents 25% of the required 120 hours, must be at the upper division level in order to fulfill the University's residency requirement. At least 15 of the 30 upper-division hours must be in the major or concentration area. An overall grade-point-average (GPA) of 2.0 is required for graduation. In addition, a minimum GPA of 2.0 is required in the student's major or concentration area.

Effective for fall, 2016, Major Milestones are used in all concentrations of the Biology Bachelor of Science major to help students stay on track for timely graduation. Each regular semester in the Biology major is a tracking term. In order to remain on track, students must complete the milestone requirements for each tracking term. These requirements are viewable on the Major Milestone tab above.

Major milestone requirements apply only to full-time, degree-seeking students who first entered Fall 2016 or later. Milestone requirements do not apply to transfer students in the Biology program.

The sample academic plan viewable on the Major Milestone tab above is designed to ensure graduation in the Biology major in four years. Several academic plans are available -- consult with your academic advisor for the plan that is the best fit for you. For specific course requirements, refer to the program requirements above and the General Education requirements of the College of Arts and Sciences.

Requirements For A Major In Biology

Students desiring to major in biology must meet the general requirements for a degree of Bachelor of Science in addition to the following requirements.

Major in Biology	Credit Hours
1. At least 37 hours of biology, including:	37
BLY 121 (L) AND BLY 122 (L)	8 hrs
BLY 301, 302, 303	9 hrs
Upper level courses	20 hrs
The upper-level choices will be based on career counseling provided by advisors using models of tracks including (but not limited to) Botany, Ecology and Evolution, Environmental Science, Marine Biology, Cell/Microbiology, and Zoology (see department website for examples).	
NOTE: A "C" or better in BLY 121, BLY 121L, BLY 122, BLY 122L, or the equivalents, are prerequisites to all courses numbered 300 or above except by permission of the Chair of the Department of Biology. A year of college chemistry, or advanced high school preparation in biology and chemistry is highly recommended for these two introductory courses. Credit will not be allowed for both the non-major sequence (BLY 101, BLY 101L, and BLY 102, BLY 102L) and the major/minor sequence (BLY 121, BLY 121L, BLY 122, BLY 122L.)	
A "C" or better is required in BLY 301, BLY 302, and BLY 303 before any other BLY 300-400 level courses can be taken.	
Upper level courses not listed here will count towards a biology major, but do not satisfy the requirements above.	
2. Chemistry	
CH 131	
CH 132	
CH 201	
3. A year of Physics (PH 114, PH 115) OR Geology (GY 111 and GY 112)	
4. Mathematics through Calculus (MA 115 and 125) or Statistics (MA 115 and ST 210)	

General Education Requirements For Biology Majors

Areas I, II, and IV of the General Education Requirements for Biology are specified in the College of Arts and Sciences section. Note that Area III requirements (Mathematics and Natural Sciences) are fulfilled by the major requirements specified above.

Major Milestones

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Biology Sample 4+Year Plan With Milestones

Term 1	Course Description	Pre-req	Cr Hrs	Milestone Notes
CAS 100	First Yr Exp - College Success		2	Must complete at least 12 hours with a 2.0 or higher GPA
EN 101*	English Composition I		3	
MA 115*/MA 113	Precal Algebra-Trigonometry	ACT Math 25	4	
CH 131/131L	General Chemistry I	ACT Math 24	4	
BLY 121/121L	General Biology I	ACT Math 22	4	
			17	
Term 2	Course Description	Pre-req	Cr Hrs	Milestone Notes
EH 102 or Honors	English Composition II	EH 101 or test score	3	EH 101 or EH 105*
ST 210	Stat Reason and Application		3	CH 131 and lab with a grade of D or better*
CH 132/132L	General Chemistry II	CH 131	4	
BLY 122/122L	General Biology II	BLY 121	4	
			14	

Term 3	Course Description	Pre-req	Cr Hrs	Milestone Notes
BLY 301	Cell Biology	BLY 122 and CH 131	3	BLY 121 and lab with a grade of C or better*
BLY 302	Genetics	BLY 122 and CH 131	3	
CH 201/201L	Organic Chemistry I	CH 132	4	
Foreign Language I			3	
CA 110	Public Speaking		3	
			16	

Term 4	Course Description	Pre-req	Cr Hrs	Milestone Notes
BLY 303	Ecology and Evolution	BLY 122 and CH 131	3	BLY 301 or BLY 302 or BLY 303 with a grade of C or better
Minor/Elective			3	CH 201 and lab with a grade of D or better
Foreign Language II			3	
English Literature		EH 102 or Honors	3	
History (US or West. Civ.)			3	
			15	

Term 5	Course Description	Pre-req	Cr Hrs	Milestone Notes
Biology Elective	300 level or higher	BLY 301, 302 and 303***	4	BLY 301, BLY 302, and BLY 303 with a grade of C or better
Biology Elective	300 level or higher	BLY 301, 302, and 303***	3	
GY 111/111L or PH 114/114L	Geology or Physics sequence required		4	
Fine Arts Elective			3	
			14	

Term 6	Course Description	Pre-req	Cr Hrs	Milestone Notes
Biology Elective	300 level or higher	BLY 301, 302, and 303***	3	Apply for graduation
Biology Elective	300 level or higher	BLY 301, 302, and 303***	3	
GY 112/112L or PH 115/115L	Geology or Physics sequence required		4	
Social/ Behavioral Elective**			3	
Minor			3	
			16	
Term 7	Course Description	Pre-req	Cr Hrs	Milestone Notes
Biology Elective	300 level or higher	BLY 301, 302, and 303***	4	Complete a total of at least 12 upper division (300-400) Biology elective hours
Humanities Electives**			3	
Social/ Behavioral Elective			3	
Minor			3	
Minor			3	
			16	
Term 8	Course Description	Pre-req	Cr Hrs	Milestone Notes
Biology Elective	300 level or higher	BLY 301, 302, and 303***	4	Complete a total of at least 20 upper division (300-400) Biology elective hours
Humanities Elective			3	
Social/ Behavioral Elective			3	

Minor	3
	13
	Total degree hours = 121

All bolded courses meet general education requirements.

- **Students with ACT Math scores 22-23 should take CH 100 and MA 112 in the first semester, and they will graduate with 128 hours; MA 125 also satisfies the math requirement. Students with ACT Math scores 21 and below should begin math courses in the summer before Fall - Year 1.**

* Students who earn an English ACT score of 27 or above, SAT score of 610 or above on the verbal portion, or a new SAT Reading Test can opt out of EH 101.

** Must have one history elective and one literature elective. In addition, students must choose a second history or literature to complete a two-part sequence.

*** There may be additional prerequisites for upper level major electives. Refer to the bulletin for more information.

All Arts and Sciences majors require a minor between 18 and 24 hours. Courses used in a minor can also be used for general education requirements or major requirements (up to two courses).

Two designated writing (W) courses are required with at least one course chosen from offerings in the student's major or minor. Courses carrying this required credit are identified in the University Bulletin by a (W) after the course title.

The Sample 4-year plan is designed as a guide for students preparing for their course selections. This information provides only a suggested schedule. Actual course selections should be made in consultation with an advisor.

Department Information

Department of Biology website
<https://www.southalabama.edu/biology>

Undergraduate Studies

The program of the Department of Biology is designed to contribute to a scientific background as part of a liberal education. The department offers a diversified, broadly based program, which can be designed to satisfy many areas of study. Our multitrack major can provide the traditional student with a well-rounded background in biology, or students may select courses to prepare them for a particular area of study. The multitrack curriculum can prepare students for graduate study, pre-health professional fields (such as medicine or dentistry), marine biology, or environmental science. The department has persons trained to advise in each of these areas. A list of advisors for a specific track or area of study can be obtained from the departmental office.

All first-time freshmen must successfully complete CAS 100: First Year Experience as a degree requirement. Students must enroll during their first term at USA, except for summer-entry students, who must enroll in the fall semester following entry.

Biology majors are required to take CIS 150, BLY 304 or ST 210 to fulfill the technology proficiency requirement, which was formerly known as the computer proficiency requirement.

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