

Advising Guide sheet

GENERAL EDUCATION REQUIREMENTS

Natural Sciences

All biology majors must take two semesters of general chemistry: CHEM A111 and A112

Co-requisites: None

Pre-requisites: MATH A108

Notes. Freshmen biology majors who have the math requirement will be pre-registered for CHEM A111.

History of Civilization

HIST A101 Introduction to World Civilization to 1750 OR HIST A102 Introduction to World Civilization Since 1750

If both courses are taken, one can be used to satisfy one of the three Humanities course requirements.

Social/Behavioral Science

Students must complete two courses from the Social/Behavioral category. The two may NOT be from the same area. These areas include Anthropology, Economics, Geography, Political Science, Psychology, and Sociology.

Courses commonly taken by biology majors include ANTH A101, ANTH A102, PSYC A101, and SOCY A101.

Foreign Language

Students must take two semesters of the same language. Language placement is based on high school records (there is no placement test) and can be found on the K Drive: > Advisors > Language Placement.

Humanities

Students must complete three courses from two areas within the Humanities category. This is a broad category and includes courses from Art History, Communication, History, Music History, Theatre History, Literature, Philosophy (NOT Logic), or Religion.

This category does not include courses that are skills-based, such as writing, art, or speech.

Courses commonly taken by biology majors include MUSC A173, MUSC A175, RELG A103, THEA A161, HIST A101, A102, A201, or A202

Critical Inquiry

All freshmen must complete the Critical Inquiry requirement, even if they have previously earned credit (AP or concurrent enrollment). Transfer students are not required to complete the requirement (Degree Works will indicate “satisfied.”).

Composition and Literature

All students must complete ENGL A101 Composition and A102 Composition and Literature

Oral Communication

All students must complete one course: COMM A201 OR A241

Mathematics

In addition to the requirement of 6-7 credit hours, all biology majors must complete math through calculus (MATH A122 Survey of Calculus OR MATH A141 Calculus I).

Biology majors most commonly choose MATH A122; however, some choose MATH A141. The path to MATH A141 is MATH A111 and A112, which may be taken concurrently. Otherwise, MATH A112 is not required. AP MATH credit is for MATH A141.

Students who have AP credit or place into MATH A122/A141 MUST take an additional course to satisfy the requirement. Any MATH course, STAT A201, or PHIL A110 Logic will work.

Math placement is now based on the students ACT/SAT score:

ACT Score (MATH)	SAT MATH	Course Placement
16 or below	450 or below	MATH A104
17-21	460-519	MATH A108L (5 contact hrs.)
22-24	520-569	MATH A108 (4 contact hrs.)
25-27	570-629	MATH A111, MATH 122
28 or higher	630 or higher	MATH 141

American Political Institutions

All students must complete HIST A201 History of the United States to 1850, HIST A202 History of the United States From 1850 to the Present, OR POLI A201 American National Government.

Students who complete POLI A201, may use HIST A201 or A202 to help satisfy the Humanities requirement.

Notes on General Education Requirements

A number of different courses may be used to satisfy particular General Education requirements. If unsure whether a course will count in a particular area, Degree Works lists all approved courses in each category.

Students who complete POLI A201 to satisfy the American Political Institutions requirement, may use HIST A201 and A202 in the Humanities category.

Students who complete HIST A201 or A202 to satisfy the American Political Institutions requirement, may use POLI A201 in the Social/Behavioral Science category.

Students who complete HIST A101 or A102 to satisfy the Western Civilization requirement may use the alternate course in the Humanities category.

ICE Requirements

Freshmen must attend 16 ICE events prior to graduation. Transfer students must complete a prorated number of ICE events, which is based on the number of transferred credits. Typically, a transfer student receives two ICE credits for every 15 hours transferred.

Although many freshmen matriculate with previously earned credits, the ICE requirement remains 16.

Writing Intensive Requirement

Freshmen must complete three Writing Intensive designated courses after completing ENGL A101 and A102. At least one of these courses must be in the major. The Writing Intensive (WI) designation is shown as a course attribute in the “Look Up classes – Student View” tab in SSC.

Writing in the University

This requirement may be satisfied by ENGL A201 Writing in the University (C or better) OR by completing the Writing Portfolio (mean score of 3 or higher).

The Writing Portfolio due dates are published in the Academic Calendar.

Deadlines for students to submit the Writing Portfolio.	
Date	Submission Date
Fall	First Wednesday after the Labor Day Holiday
Spring	Last Wednesday in January
Summer	First Wednesday in June

MAJOR REQUIREMENTS

Biology Course Rotations

Course	Term		Comments
BIOL A302 Cell and Molecular Biology ¹			Not currently offered
BIOL A305 Elementary Biostatistics	Fall	Spring	
BIOL A315 Comparative Anatomy ¹	Fall		
BIOL A316 Vertebrate Zoology ¹		Spring (O)	Offered every odd year
BIOL A320 Principles of Botany ¹	Fall		
BIOL A325 Plant Physiology ¹		Spring (E)	Offered every even year
BIOL A330 Fundamentals of Microbiology ¹	Fall		
BIOL A335 Microbial Ecology ¹		Spring	
BIOL A340 Virology ¹		Spring (O)	Offered every odd year
BIOL A350 Fundamental Genetics I	Fall	Spring	
BIOL A360 Animal Physiology ¹		Spring (E)	
BIOL A365 Animal Nutrition ²		Spring (O)	
BIOL A366 Animal Behavior ^{1, 2}	Summer (O)		
BIOL A367 Neurobiology ^{1, 2}		Spring (E)	
BIOL A370 Ecology and Evolution	Fall	Spring	
BIOL A381 Tropical Marine Biology			Not currently offered
BIOL A390 Env. Science and Human Health	Fall		
BIOL A398 Special Topics (Biology) ²	Fall	Spring	Three course rotation
BIOL A502 Eukaryotic Cell/Molec. Biology ²	Fall		
BIOL A510 Developmental Biology ^{1, 2}		Spring	
BIOL A516 Herpetology ¹			Not currently offered
BIOL A525 Conservation Biology		Spring (E)	
BIOL A528 Seasonal Flora ¹	Summer		Offered in Maymester
BIOL A531 Parasitology ¹	Fall (O)		
BIOL A540 Cancer Biology		Spring (O)	
BIOL A541 Principles of Biochemistry ¹	Fall		
BIOL A542 Principles of Biochemistry II			Not currently offered
BIOL A550 Immunology ²		Spring (E)	
BIOL A560 Aquatic Biology ¹	Fall (E)		
BIOL A570 Principles of Ecology			Not currently offered
BIOL A575 Topics in Ecology			Not currently offered
BIOL A576 Topics in Env. Science	Fall	Spring	Three course rotation
BIOL A576 Toxicology and Restoration Ecology offered as Writing Intensive			
BIOL A583 Pathology of Coastal Organisms			Not currently offered
¹ Lab designated course			
² Writing Intensive course			

Geology Course Rotations

Course	Term		Comments
GEOL A101 Physical Geology	Fall	Spring	
GEOL A103 Env. Earth Science	Fall	Spring	
GEOL A102 Historical Geology (WI)		Spring	

GEOL A301 Oceanography		Spring (E)	
GEOL A325 Sedimentology & Stratigraphy	Fall (O)		
GEOL A331 Structural Geology		Spring (O)	
GEOL A363 Intro to GIS in the Sciences	Fall (O)		
GEOL A401 Env. Geomorphology		Spring (E)	
GEOL A405 Global Biogeochem. Cycles	Fall (E)		
GEOL A425 Coastal Field Geology	Summer		Offered in Maymester
GEOL A431 Southn. Appalachian Geology		Spring (E)	

Biology Core Requirements

All Biology majors must complete BIOL A121 Biological Science I, BIOL A122 Biological Science II, and BIOL A305 Elementary Biostatistics

BA/BS Biology. In addition to BIOL A121, A122, and A305, BA/BS Biology majors must complete A350 Fundamental Genetics I and BIOL A370 Ecology and Evolution.

BS Biology, Environmental Remediation and Restoration. In addition to BIOL A121, A122, and A305, those pursuing a concentration in Environmental Remediation and Restoration complete BIOL A335 Microbial Ecology, BIOL A370 Ecology and Evolution, and BIOL A390 Environmental Science and Human Health.

BS, Biology, Molecular Biology. In addition to BIOL A121, A122, and A305, those pursuing a Molecular Biology concentration must complete BIOL A350 Fundamental Genetics I and either BIOL A315 Comparative Anatomy OR BIOL A370 Ecology and Evolution.

Notes on additional courses required in the major.

Lab Designated courses. Depending on their degree program, biology majors must complete 1-2 300-level laboratory-designated courses. All four-credit hour, 300-level courses satisfy this requirement. Three-credit hour, 300-level courses that will satisfy this requirement include BIOL A315 Comparative Anatomy, BIOL A398 Applied Biotechnology, BIOL 398 Applied Environmental Health, and BIOL A398 Applied Genetics and Genomics

Research Requirement. All biology majors must complete a research-based capstone course and may choose from two options:

- BIOL A498 Research Design, Implementation, and Analysis; OR
- BIOL A490 Senior Seminar AND BIOL A499 Applied Biological Research Design, Implementation, and Analysis

Each student must choose one of these options prior to graduation. BIOL/GEOL A490 Senior Seminar is a co-requisite of BIOL/GEOL A499, but not BIOL A498. It is important to note that BIOL A498 is only offered during spring semesters.

Writing Intensive (WRI) courses in the major. The department offers a number of writing intensive courses:

BIOL A365 Animal Nutrition (Vieyra)
 BIOL A366 Animal Behavior (Vieyra)
 BIOL A370 Ecology and Evolution (Dyer)
 BIOL A502 Eukaryotic Cellular and Molecular Biology (Jackson)
 BIOL A510 Developmental Biology (DeLaurier)
 BIOL A550 Immunology (Jackson)
 BIOL A576 Toxicology (Harmon)
 BIOL A576 Restoration Ecology (Dyer)
 GEOL A102 Historical Geology (Dennis)

Notes on the writing intensive requirement.

All students must complete this requirement prior to graduation. Freshmen must complete three writing intensive-designated classes following completion of the ENGL A101/A102 sequence. At least one WRI-designated course MUST be in the major. Transfer students have a prorated requirement depending on the total credits transferred:

Hours Earned	Number of WI Courses Required	WI Credit Given
Fewer than 60 hours	3 (at least one in the major)	0
60-89 hours	2 (at least one in the major)	1
Greater than 89 hours	1 (must be in the major)	2

Required/Preferred courses.

Graduate programs. Preferred/required courses depend on the students proposed field of study as well as the graduate program. Students interested in environmental and field-associated graduate degrees may choose to follow the concentration in Environmental Remediation and Restoration. Students interested in molecular-based programs may choose to follow the concentration in Molecular Biology.

Medical programs (state). Generally, the state medical programs require applicants to have two semesters of general biology, biochemistry, general chemistry, organic chemistry, and physics. Further advanced studies in the biological sciences are encouraged. These courses include cell/molecular biology, comparative anatomy, developmental biology, genetics, immunology, microbiology, comparative anatomy, physiology, and toxicology.

Dental programs. Generally, the prerequisite courses for dental programs mirror those for medical programs: two semesters of general biology, general chemistry, organic chemistry, and physics.

Cognates. We offer several cognate options for our various majors. In general, students must complete 12-18 hours to satisfy the cognate requirement.

BA Biology. Students completing a BA in Biology have no specific set of cognate courses and often choose a minor from outside of the College of Sciences and Engineering.

BS Biology, general

Geology cognate (three courses at the 300-level or above)

Physics/Organic Chemistry (three courses that include a combination of the two areas)

Geology/Organic Chemistry (three courses that include a combination of the two areas)

BS Biology, concentration in Environmental Remediation and Restoration

CHEM A331 and A331L Organic Chemistry I

GEOL A300 or above

One additional physical science course (geology, chemistry, or physics)

BS Biology, concentration in Molecular Biology

CHEM A331 and A331L Organic Chemistry I

CHEM A332 and A332L Organic Chemistry II

PHYS A201 General Physics I

BS Clinical Laboratory Science

CHEM A331 and A331L Organic Chemistry I

Notes on the cognate requirement.

The cognates as listed in the bulletin are those commonly pursued by students. However, unique cognates can be created from upper level math/statistics (e.g., MATH A142, STAT A509), upper level psychology (e.g., 300-level and above), and upper level chemistry (e.g., CHEM A550). Students completing these unique cognates will require a substitution for correct documentation in Degree Works. The student or advisor should contact the unit head for this.

Minors. For graduation purposes, students who complete a minor are not required to also complete a cognate. However, students may need to complete additional courses to satisfy a graduate/profession program pre-requisite. For example, a biology major who takes a psychology minor and intends to apply to a medical program, must still complete the organic chemistry/physics pre-requisites for medical school.

Graduation

Students are strongly encouraged to inform their advisor once application has been made. The student and advisor should plan to complete the graduate clearance form during the subsequent advisement session.

Deadlines for students to apply for graduation.	
Graduation Date	Application Dates
May	Mid-December through January

August	Mid-May through mid-June
December	Mid-July through August

Notes on Degree Works accuracy.

Degree Works is much more accurate for students who complete their entire degree at USC Aiken than for students who transfer in credits. Inaccuracies for transfer students often stem from the transfer course evaluation process and often result in courses being categorized as electives. Therefore when looking for a particular completed course in Degree Works, it is imperative to also check the elective category. No matter where the course is found, a transfer course that satisfies a particular requirement will do just that. When in doubt the student should contact the Records Office.

OVERRIDE INFORMATION

Biology/Geology courses.

- Prerequisite overrides are not provided except in exceptional circumstances.
- Capacity overrides may be provided on a need basis. Course limits are based on the classroom occupancy level and available seating. The limit for some courses, such as 500-level and those designated writing intensive, are often at a lower level. The limit for lab courses is set at 24, while lecture-only courses are often higher. In general, the capacity of core courses (e.g., BIOL A121, A122, A305, A350, and A370) is set at a level less than the limit to provide seats for students who must have the course to graduate but were not able to register before the course closed. In these cases, students may be placed on a waiting list and will be offered capacity overrides once final grades are in and all students who must have the course are registered.

Non-Biology courses.

- Overrides into non-biology or geology courses, must be obtained from the department offering the course.