

COLLEGE OF ARTS AND SCIENCES

BIOLOGICAL SCIENCES

1-800-334-4111 • WWW.CAMPBELL.EDU

THE CAMPBELL PROGRAM

The biological sciences are experiencing explosive growth as key issues and breakthroughs bring this fascinating field to the front page and the evening news daily. The impact is expected to continue far into the next century and play an increasingly important role in all our lives.

Within this context, our goal is to present the biological sciences from the perspective of purpose and faith. We offer courses designed to prepare you for advanced training in professional and graduate schools, as well as a career in healthcare, teaching, government, or private industry. Our program is substantial: on average, we have 200 majors and offer more than three dozen courses in all facets of this field, including genetics, microbiology, cell biology, ecology, and biotechnology.

THE CAMPBELL APPROACH

We strive to present a balance between the theoretical and the practical by spending equal amounts of time in lecture and lab. Labs typically range from 15-26 students. You'll also be encouraged to do independent research under faculty direction or to do a voluntary internship with a health-related organization.

We have extensive resources, including modern laboratory equipment and instrumentation. You'll also find

- Three analog video microscopes and three digital video microscopes
- Multimedia classrooms and laboratories
- 24 wireless laptop computer, printers, and course related software
- Eight mobile UV/Vis spectroscopy workstations
- Five laminar flow hoods, two CO₂ incubators, three PCR thermocyclers, four inverted phase-contrast microscopes
- Two digital multimedia presentations stations
- LI-COR 4300 DNA Analysis System
- 12 canoes
- 17 ft. research boat with 90 HP outboard motor

THE CAMPBELL FACULTY

Our faculty's strong academic credentials are complemented by vast teaching expertise in a wide variety of subjects. Our research interests are also diverse, encompassing signal transduction pathways, molecular genetics, population dynamics and ecology, horticulture, plant tissue culture and bioengineering, taxonomy, and canine and ruminant digestive physiology and immunity to infectious diseases.

For more information about the program contact:
The Administrative Assistant
1-800-334-4111, ext. 1730 • 910-893-1730
biology@campbell.edu

Our faculty is approachable and friendly. You will have an advisor who can relate to your career goals. You will be encouraged to get to know your professors and fellow majors outside class through the Walker Biology Club and Pre-Medical/ Allied Health Honor Society.

THE CAMPBELL STUDENT

We are looking for serious students who want to be successful in attaining their goals. It's helpful if your high school coursework included trigonometry, biology, and preferably chemistry. Generally speaking, successful students in our program have an SAT above 1,000, a high school unweighted GPA over 3.0, and a real aptitude for science and mathematics.

About one-fourth of our graduates immediately or ultimately seek an advanced degree, including medical school. Another 20% teach, while the remainder work in the government and such private sectors as healthcare and biotechnology.

BIOLOGICAL SCIENCE: BACHELORS OF SCIENCE

Requirements for a Major in Biology

A major in biology may be obtained within a general curriculum or one which follows specific guidelines for pre-physician assistant, teacher licensure, pre-physical therapy or pre-professional (preparation for graduate or professional schools) studies. The student majoring in biology must complete a minimum of 39 hours in biology, and these must include credit for BIOL 111, 201, 202, 203, 205, 327, 342, 451, and one of the following: 430, 437 or 438. Students are encouraged to complete more than the minimum number of hours in biology.

Ancillary requirements include MATH 112 (or 122) and 160; CHEM 111, 113, and 227; and PHYS 221 & 222 or 251 & 252. CHEM 228 is an additional requirement in the preprofessional curriculum.

Requirements for a Minor in Biology

Students wishing to minor in biology may do so by completing BIOL 111 and an additional sixteen semester hours in biology courses numbered at the 200-level or above. The sixteen hours must include a minimum of three courses with laboratory.

Requirements for a Minor in Environmental Science

Students wishing to minor in environmental science may do so by completing ENVS 111, 112 and an additional ten semester hours in cognate courses chosen in consultation with the environmental science program advisor.

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Requirements for Major in Biology with Teacher Certification

Students seeking secondary teacher certification in biology must complete a minimum of 35 hours in biology, including credit for the biology courses listed for a major in biology. They must also complete PSYC 222; SOCI 345; EDUC 221, 223, 230, 330, 331, 430, 432, 440, 441, and 458; and SIED 453 and 454.

Curriculum Outline

Biological sciences

CAMPBELL

UNIVERSITY

FRESHMAN YEAR

SEMESTER 1		HRS	SEMESTER 2		HRS
BASIC BIOLOGY	BIOL 111	4	BOTANY	BIOL 202	4
TRIGONOMETRY	MATH 112	3	STATISTICS	MATH 160	3

SOPHOMORE YEAR

SEMESTER 3		HRS	SEMESTER 4		HRS
ZOOLOGY	BIOL 203	4	CELL & MOLECULAR BIO	BIOL 201	4
INTRO TO BIOL RESEARCH	BIOL 205	3	GENERAL CHEMISTRY	CHEM 113	4
GENERAL CHEMISTRY	CHEM 111	4			

JUNIOR YEAR

SEMESTER 5		HRS	SEMESTER 6		HRS
BIOLOGY ELECTIVE	BIOL	4	GENETICS	BIOL 341	4
ORGANIC CHEMISTRY	CHEM 227	4	PHYSICS	PHYS 222	4
PHYSICS	PHYS 221	4			

SENIOR YEAR

SEMESTER 7		HRS	SEMESTER 8		HRS
BIOLOGY ELECTIVE	BIOL	4	ECOLOGY	BIOL 327	4
BIOLOGY SEMINAR	BIOL 451	1	BIOCHEMISTRY	BIOL 430	OR
			PLANT PHYSIOLOGY	BIOL 438	4
			ANIMAL PHYSIOLOGY	BIOL 437	4

* AN ADDITIONAL 63 CREDIT HOURS OF REQUIRED AND ELECTIVE COURSEWORK ARE NECESSARY TO FULFILL DEGREE REQUIREMENTS

The major requirements outlined within this brochure are intended as a guideline, and the curriculum outlines are only a sample. The most recent copy of the University's Undergraduate Studies Bulletin is the official source related to curriculum guidelines. It is the student's responsibility to consult with his/her academic advisor.

The Campbell Advantage

Whether today's biological scientists must have capabilities extending beyond the lab and classroom. For example, they must be well-grounded in ethics, research, writing, and technology. We're convinced Campbell is uniquely qualified to give you the foundation on which to build your specialization, because...

- We combine a core curriculum with a vast array of biology-related courses and resources.
- We have a faculty committed to outstanding teaching and helping you achieve your goals.
- We are a university dedicated to quality liberal arts education, free enterprise, our Christian Mission.

Biology Electives

Biology 215	Plants for Pleasure & Profit
Biology 221	Human Anatomy & Physiology
Biology 224	Vertebrate Natural History
Biology 226	Ornithology
Biology 241	Field Botany
Biology 250	Histology
Biology 310	Advanced Human Physiology
Biology 315	Bioinformatics
Biology 319	Biomedical Ethics
Biology 320	Developmental Anatomy
Biology 321	Environmental Toxicology
Biology 322	Aquatic Ecology
Biology 333	General Parasitology
Biology 334	Microbiology
Biology 335	Immunology
Biology 336	Medical Microbiology
Biology 350	Advanced Cell & Molecular Biochemistry
Biology 351	Creation, Evolution, or Both?
Biology 441	Biology Research
Biology 465	Biology Internship
Biology 508	Molecular Techniques

Interested?

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Academics
Advantages
Campus Visits
Career Services
Community
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Financial Aid
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Outcomes
Residence Life
Value

Admissions Office
 Campbell University
 1-800-334-4111
 International: 01-910-893-1415
 www.campbell.edu

Consider us. Visit us. Call us today.