

B.S. in Biology: Pre-Professional Concentrations

Program Description

The pre-professional concentrations of the Bachelor of Science in Biology include:

- Pre-Dentistry
- Pre-Medicine
- Pre-Optometry
- Pre-Osteopathic Medicine
- Pre-Pharmacy
- Pre-Podiatric Medicine
- Pre-Veterinary Medicine

These programs are designed to prepare students for further study at the graduate level.

Delivery Mode

Traditional (on campus)

Curriculum

Course	Credits
General Education Courses	42
<i>Building a Sense of Community</i> UNI 100 First-Year Seminar	1
<i>Composition</i> ENG 101 English Composition I	3
<i>Public Speaking</i> Any Oral Communication Course	3
<i>Mathematics and Quantitative Literacy</i> MAT 273 Applied Calculus OR MAT 281 Calculus I	3
<i>Health and Wellness</i> Any Health and Wellness Course	3
<i>Technological Literacy</i> Any Tech Lit. Course	3
<i>Humanities</i> Any Humanities Course	3
<i>Fine Arts</i> Any Fine Arts Course	3
<i>Natural Sciences</i> PHY 121 General Physics I	4
<i>Social Sciences</i> Any Social Science Course	3
<i>General Education Options</i>	13

Department of Biology, Geology and Environmental Sciences

Course	Credits
<ul style="list-style-type: none"> • Any Ethics and Multicultural Awareness Emphasis Course* • ENG 102 Composition II • MAT 215 Statistics • CHE 101 General Chemistry I 	
Required Major Courses	44
BIO 120 General Zoology	4
BIO 125 General Botany	4
BIO 215 Cellular and Molecular Biology	4
BIO 218 Genetics	4
BIO 306 Human Anatomy OR BIO 305 Comparative Vertebrate Anatomy	4
BIO 326 General Microbiology	4
BIO 328 Human Physiology OR BIO 486 Comparative Animal Physiology	4
BIO 480 Cell Biology	4
PHY 122 General Physics II	4
CHE 102 General Chemistry II	4
CHE 331 Organic Chemistry I	4
Related Electives	16
Select from 300- or 400-level BIO/ENS courses and CHE 415	16
Free Electives	18
Total	120

* Ethics and Multicultural Awareness Emphasis Course: Recommended either PHI 307 (Medical Ethics) or PHI 308 (Bioethics).

Additional requirements, not counted toward the General Education requirements, include:

- **Special Experience Course (1 course required):** Any Special Experience Course
- **Writing-Intensive Component Courses (2 courses required):** Any two BIO or ENS Upper-Division Writing Component Courses
- **Laboratory Course (1 course required):** BIO 215 Cellular and Molecular Biology

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Program Note: Chemistry minor (20 credits) recommended for those students intending to pursue graduate or professional school. (Must declare minor with chair of the Department of Mathematics and Physical Sciences.)

Program Webpage

<https://www.calu.edu/academics/undergraduate/bachelors/biology/pre-professional/index.aspx>