



# B.S. BIOLOGY

## School of Natural Sciences and Mathematics

Biology is the study of life. Our biology program is designed to give you intellectual freedom to pursue your interests in a vast field of study. As a biology major, you'll learn from cutting-edge and contemporary coursework and rigorous laboratory courses. A degree in biology will prepare you for a career in medicine, government, education, the biotech and pharmaceutical industries, environmental management, research, patent law and much more.

## FOUR-YEAR GRADUATION GUARANTEE\*

Work with your advisor to develop your four-year major graduation plan, and if you follow that, we guarantee you'll graduate in four years.

### SAMPLE FOUR-YEAR GRADUATION PLAN:

#### YEAR 1

##### Fall, 17 Credits

BI 100 First Year Science Seminar:  
Science, Society and the Biosphere  
BI 210L Biotechniques Laboratory:  
DNA/RNA Protein  
BI 215/L Cellular and Organismal Biology I  
CH 203/L General Chemistry I  
MA 110 Precalculus  
CUH 100 First-Year Experience  
EN 101 Introduction to Expository Writing

##### Spring, 15 Credits

BI 104 Digital Biology  
BI 216/L Cellular and Organismal Biology II  
EN 102 Expository Writing  
CH 204/L General Chemistry II  
COM 101 Introduction to Communication

#### YEAR 2

##### Fall, 19 Credits

MA 210 Calculus I  
BI 307/L Molecular Biology I  
CH 323/L Organic Chemistry I  
Free Elective  
Free Elective

##### Spring, 19 Credits

MA 211 Calculus II  
BI 308/L Molecular Biology II  
CH 324/L Organic Chemistry II  
Free Elective  
Free Elective

#### YEAR 3

##### Fall, 17 Credits <sup>1</sup>, 20 Credits <sup>2</sup>

BI 300 Science Writing I  
BI 311 Biostatistics  
BI 321/L Advanced Human and  
Comparative Anatomy  
PHY 251/L University Physics I  
Free Elective  
Free Elective <sup>2</sup>

##### Spring, 16 Credits

BI 302 Science Writing II  
BI 312 Epidemiology  
BI 320/L Developmental Biology  
PHY 252/L University Physics II  
Free Elective

#### YEAR 4

##### Fall, 17 Credits

BI 410/L Advanced Human Physiology I  
BI 420 Systems Biology  
Biology Major Elective Course  
Free Elective  
Free Elective <sup>1</sup>  
BI 495 Research I <sup>2</sup>

##### Spring, 18 Credits <sup>1</sup>, 17 Credits <sup>2</sup>

BI 411/L Advanced Human Physiology II  
Biology Major Elective Course  
Free Elective  
Free Elective  
BI 471/L Ecology <sup>1</sup>  
Free Elective <sup>2</sup>

<sup>1</sup> Course required for Integrative and Organismal Track

<sup>2</sup> Course required for Cellular and Molecular Track

\*The four-year graduation guarantee depends upon you working with an advisor to create a four-year plan unique to your major. Be sure to meet regularly with the Office of Advising & Career Development to build your own, four-year plan based upon your chosen major.

### HANDS-ON EXPERIENCES

- Engage with exciting professors who teach dynamically using traditional lectures, simulation and online learning
- Develop foundational experimental techniques that prepare you for today's scientific workplace
- Integrate Hawaiian cultural knowledge and usage of medicinal plants
- Take advantage of one of our numerous internship opportunities in Hawai'i or on the U.S. mainland
- Partner with a faculty member to conduct research, and then travel to a conference to present your findings to the international scientific community
- Get specialized advising for health professions school applications (e.g. MD, PharmD, PT school), connect with one of our partner schools for early admission or work with faculty to prepare a competitive application for your first science job

### REAL-WORLD SKILLS

When you graduate with a B.S. in Biology from Chaminade, you'll have a solid understanding of:

- The scientific method used to design and test a hypothesis
- The process of visualizing, evaluating, validating and interpreting scientific data, and communicating science effectively
- Tools for comprehending information from published scientific literature
- The chemical and physical principles that unite all life forms
- Genetic and epigenetic information transmission, and their determinant effects on the adaptive and evolutionary processes that they drive
- Major human diseases and possible therapeutic approaches
- The application of science to service, justice and peace in the solution of societal problems.