



THE PATHWAY FROM EDUCATION TO VOCATION

Becoming a Difference Maker in
BIOLOGY

Why Study **Biology** at Azusa Pacific University?

The Bachelor of Science in Biology prepares students with a solid foundation in biology, chemistry, and biological chemistry. Within the major, students will choose one emphasis (Organismal, Molecular, Ecological, or Business) in which they will focus their advanced studies. This prepares them to pursue a wide range of careers, including medicine, health care, conservation, biotechnology, microbiology, and science education, amongst others. The program also guides students in developing a Christian worldview in biology, teaching them to integrate their faith into their lives and their discipline, and helping them mature into scientists prepared for graduate or professional studies and for success in leadership roles in their future careers and callings.

APU's biology program boasts a strong acceptance rate of students seeking admission in prestigious and competitive medical, dental, veterinary, and other graduate programs. The department is devoted solely to undergraduate education, with a strong emphasis on laboratory courses, giving each student more opportunities for hands-on learning than most other schools. Students also have the opportunity to do cutting-edge research directly under the guidance of faculty who regularly publish in top academic journals, and this in-depth research experience helps APU graduates stand out among their peers when applying for graduate programs or professional research positions.

YOU MIGHT CONSIDER A BIOLOGY MAJOR IF YOU:

- Are fascinated with understanding living systems and the molecular and physiological systems underlying them
- Want to help humankind overcome serious challenges
- Enjoy working in a laboratory and doing research in field and lab settings
- Are interested in and concerned about taking care of God's creation
- Enjoy spending time in the great outdoors or behind a microscope
- Are thorough, process-oriented, and detail-oriented
- Are inquisitive and enjoy discovering new things



JULIAN SWANSON '08
MedPeds Resident Doctor
Baylor College of Medicine

Julian earned his M.D. from USC in 2013. He is now in Houston working through his Combined Internal Medicine and Pediatrics ("MedPeds") residency at Baylor College of Medicine.

"APU's well-rounded education has helped me become a doctor that cares for his patients as a whole; body, mind, and spirit."



MELISSA LABONTE WILSON '04
Assistant Professor, Molecular Biology
Queens University Belfast

Dr. LaBonte Wilson has over ten years of transitional cancer biology experience with a focus on gastrointestinal cancers. Recently, Queens University granted her funds to work with a world-leading research program.

"Focus on your weaknesses, not your strengths. You have far more to gain in life by focusing on the things that are holding you back from your full potential, than by relying on your strengths."

BIOLOGY MAJORS ARE PREPARED FOR:

- Critically thinking through complex processes
- Applying quantitative reasoning via collection and analysis of data
- Solving problems in a variety of situations
- Analyzing information from multiple sources
- Communicating scientific findings verbally and through written media
- Skillfully conducting laboratory research
- Understanding scientific terminology and nomenclature
- Developing an ethical framework for scientific and medical work
- Applying to medical, dental, and other graduate schools

GRADUATES IN BIOLOGY WORK AS:

- Medical doctors and nurses
- Research scientists in bio-technology and pharmaceutical industries
- Ecologists, conservation biologists, and environmental consultants
- Science educators
- Microbiologists and laboratory technicians
- Dentists and orthodontists
- Agriculture and food science researchers
- Veterinarians

**Many of these careers may require additional training and/or graduate education*



JAMIE PRESTON '09
Laboratory Technologist
Metropolitan Water District of
Southern California

In her current position, Jamie assists microbiologists with various projects including maintaining the cell culture lines in their lab and preparing source water samples for microscopic analysis of quagga mussels.

"Learning from a Christian perspective gave me great foundation for being able to speak intelligently about God in a mostly atheist environment."

STEPS TO TAKE AS A MAJOR IN BIOLOGY

OPTIONS TO EXPLORE AROUND APU

BE CALLED.

EXPLORE. DEFINE. RESEARCH. LEARN.

- **TAKE GENERAL BIOLOGY I (BIOL 151)**
Explore your interest in a science or medical related field.
- **ATTEND DEPARTMENTAL ADVISING SESSIONS**
Participate in advising each semester in order to discuss your progress through the courses and get feedback from a faculty advisor in regards to your career pursuits.
- **ATTEND PANELS AND EVENTS ON CAMPUS**
Hear from current students, alumni, and employers about careers in the Biology field.

- **LEARN HOW TO APPLY YOUR STRENGTHS WITHIN YOUR ACADEMICS, LIFE, AND CAREER**
Meet with a Career Consultant* or Strengths Mentor.
- **CONSIDER CAREER OPTIONS FOR YOUR MAJOR**
Meet with a Career Consultant* or your faculty advisor to explore and discuss requirements for your career options.

BE PREPARED.

IDENTIFY. STRENGTHEN. PRACTICE.

- **LEARN AND EXCEL IN YOUR CLASSES**
Graduate and medical schools require excellent undergraduate grades and a strong understanding of basic science. Be sure to focus on excelling from day one.
- **ATTEND THE FALL RESEARCH DAY**
FRD is an annual fall event showcasing faculty-mentored student research over the previous year.
- **GO ON A MEDICAL MISSIONS TRIP**
Volunteer on APU's Mexico Outreach Team Luke to do medical missions, and consider other missions trips to Ecuador and the Dominican Republic.
- **BUILD YOUR RESEARCH SKILLS**
Consider a Directed Research experience with a faculty member. Long-term commitment to a research project may result in the opportunity to present your research at regional and even national conferences.
- **ATTEND A SPECIAL OFF-CAMPUS SUMMER SESSION**
Consider enrolling in field-based summer courses to earn upper-division elective credit at the Au Sable Institute of Environmental Studies at their campuses on Whitby Island, WA or Mancelona, MI.
- **SECURE AN INTERNSHIP**
Utilize your connections to find an internship in an area related to your interests and career aspirations. Practicum Course offerings (BIOL 390, 391, 395, 465) allow students to integrate scientific knowledge with volunteer or paid positions at research or clinical sites in the community.

- **RECEIVE FEEDBACK ON YOUR INTERVIEWING ABILITIES**
Complete a Mock Interview with a Career Consultant*
- **CREATE A RESUME TO APPLY FOR AN INTERNSHIP**
Meet with a Career Consultant* to review your resume and cover letter. Run them by your professors, too.
- **GROW YOUR SKILLS IN AN ON CAMPUS JOB OR STUDENT LEADERSHIP POSITION**
Talk to Student Employment or Student Life about the available opportunities.
- **VOLUNTEER LOCALLY AND GLOBALLY TO SHAPE YOUR PERSPECTIVE**
Talk to the Center for Student Action about how you can serve.
- **GAIN KNOWLEDGE ABOUT YOUR CAREER OPTIONS**
Do informational interviews or go to a career-related event to learn more about your career, degree, and experience requirements.

BE CONNECTED.

JOIN. NETWORK. BE ACTIVE.

- **JOIN BETA BETA BETA NATIONAL HONORS BIOLOGICAL SOCIETY, PHI DELTA EPSILON INTERNATIONAL MEDICAL FRATERNITY, OR DELTA SIGMA DELTA INTERNATIONAL DENTAL FRATERNITY**
Connecting in APU's chapter of these student honor societies help students bolster their resume and connections to increase their competitiveness when applying for medical school or professional positions.
- **EXPLORE SHADOWING OPPORTUNITIES**
Volunteer within your field of interest in order to establish connections.
- **FOLLOW APU DEPARTMENT OF BIOLOGY AND CHEMISTRY ON FACEBOOK AND INSTAGRAM (@APU_BIOLOGY_CHEMISTRY)**
Stay up-to-date on department activities.
- **JOIN APU CONNECT**
Use the exclusive online networking portal to connect with other alumni.

- **TALK TO ALUMNI FROM YOUR MAJOR**
Join APUConnect.com and start reaching out. You can also email clasalumni@apu.edu* for help connecting with alumni.
- **GET ACTIVE ON LINKEDIN**
Meet with a Career Consultant* to review your profile and learn how to use LinkedIn.
- **ATTEND CAREER-RELATED EVENTS**
Keep an eye out for career events related to your major or that are happening around campus.
- **HAVE LETTERS OF RECOMMENDATION ON HAND**
Request them from professors and advisors at least a month before due.

* Visit apucareer.youcanbook.me/ to make an appointment with a Career Consultant

* Use subject line: Connect me with APU alumni

APPLYING TO GRADUATE SCHOOL

EXPLORE.



Learn more at
www.apu.edu/career/graduateschool

SELECT.

ONLINE RESOURCES TO HELP IDENTIFY THE BEST PROGRAM FOR YOU

[Peterson's Guide](#)
[GradSchools.com](#)
[The Princeton Review](#)
[National Assoc. of Graduate Professional Students](#)
[The Council of Graduate Schools](#)
[APU Pew Society Graduate Guide](#)

EXAMPLES OF SCHOOLS ATTENDED BY APU **BIOLOGY** GRADUATES:

[Western University of Health Sciences](#)
[Baylor College of Medicine](#)
[Creighton University](#)
[Duke University](#)
[University of Illinois](#)

APPLY.

- APPLICATION FORM AND FEES**
Follow instructions carefully and have one or more people check for errors.
- ENTRANCE ESSAY**
Provide a writing example that shows your personal objectives.
- TRANSCRIPT**
Ask APU to send it directly to the school you are applying to.
- LETTERS OF RECOMMENDATION**
Schools usually require three letters, so get them early.
- INTERVIEWS**
If your potential school requests an interview, treat it as a job interview.

FINDING YOUR CAREER

IDENTIFY.

- Search online job boards and professional associations in the Biology field
- Regularly check-in with your organizations of interest and network with those who can inform you of opportunities
- Look on APU Career Network for possible opportunities

BIOLOGY ASSOCIATIONS:

[American Scientific Affiliation](#)
[American Society for Microbiology](#)
[Society for Neuroscience](#)
[American Society of Gene & Cell Therapy](#)
[American Society of Plant Biologists](#)
[Ecological Society of America](#)
[Association of American Medical Colleges](#)
[American Dental Education Association](#)
[American Medical Association](#)

PREPARE.

BRAINSTORM YOUR EXPERIENCE

What have you done? What is relevant?



TAILOR YOUR RESUME

What does the job description say?



WRITE GOOD BULLET POINTS

Do you focus on your accomplishments?



FORMAT YOUR RESUME

Is it easy to read and follow?



PRACTICE INTERVIEWING

Know yourself.
Know the position.
Know the organization.

RESEARCH OPTIONS

OCCUPATIONAL OUTLOOK HANDBOOK

www.bls.gov/ooh/

O*NET ONLINE

www.onetonline.org

PROFESSIONAL ASSOCIATION REFERENCE

www.weddles.com/associations

NETWORK.

WHO DO YOU KNOW?
WHO DO YOU NEED TO KNOW?



WHY NETWORK?

- Learn about different options in your field
- Research companies and positions of interest
- Find hidden opportunities that are not advertised
- Obtain referrals from those who have influence

EXAMPLES OF COMPANIES THAT HIRE APU **BIOLOGY** GRADUATES:

University of Southern California
California Institute of Technology
University of Virginia
Teach for America
Gilead Sciences
OneLegacy
Citrus Valley Health Partners
City of Hope



AZUSA PACIFIC
UNIVERSITY