



THE PATHWAY FROM EDUCATION TO VOCATION

Becoming a Difference Maker in
CHEMISTRY

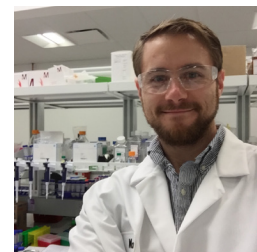
Why Study **Chemistry** at Azusa Pacific University?

A wide range of career options are available to an individual with a degree in chemistry. Careers in research and development, quality control, chemical health and safety, environmental chemistry, science policy, and education are several possible paths graduates can pursue. There are many current issues that chemists can contribute to such as developing cleaner energy sources, designing more environmentally-friendly industrial practices, improving plastics waste management, and synthesizing safe and effective pharmaceuticals, to name a few. This program prepares students to be difference makers, graduating with the foundational scientific knowledge and skills to address these and other issues, and impact the world in a positive, God-honoring manner.

At Azusa Pacific University, the Bachelor of Science in chemistry is designed to provide a solid foundation in the five core chemistry disciplines: analytical, biochemistry, inorganic, organic, and physical, as well as hands-on experience in the laboratory. Students have opportunities to use and gain invaluable laboratory and research experience with a variety of state-of-the-art equipment, such as an NMR spectrometer. This program will appropriately prepare students for a successful career in the chemical sciences and for graduate or professional studies in science or health related fields. Additionally, Azusa Pacific University provides an environment where undergraduate students can develop a Christian worldview and learn to integrate their faith into their lives as scientists. Students will have the opportunity to consider how to glorify God in their work as a scientist and to consider the ethical and moral responsibilities of a career in science.

YOU MIGHT CONSIDER A CHEMISTRY MAJOR IF YOU:

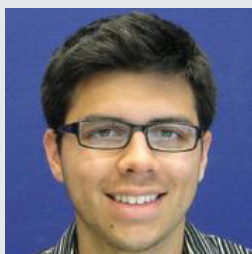
- Enjoy science and math
- Enjoy the hands-on experience of a laboratory
- Like to understand why the universe works the way it does
- Are thorough, process oriented, and detail oriented
- Enjoy analytical thinking
- Like working independently as well as in a group setting



MARK AMBROSO '09
Scientist II
Roche Diagnostics

Mark is on a team of scientists at a large pharmaceutical company who use protein engineering to develop novel DNA sequencing technologies. He received his Ph.D. in Genetics, Molecular and Cellular Biology from USC.

"APU helped me find my passion for science, encouraged me to pursue a higher level of understanding, and helped prepare me for a profession in science."



ANDREW CHAVEZ '13
Materials Engineer Associate
Lockheed Martin

As a Materials Engineer Associate, Andrew tests parts, chemicals, and gases used for various programs that work toward building satellites.

"The professors at APU push you to bring out your best, whether it be through challenging classes or making you think about life in general."

CHEMISTRY MAJORS ARE PREPARED FOR:

- Solving problems in a variety of situations
- Demonstrating critical thinking skills
- Communicating scientific findings to a variety of audiences
- Using laboratory-based techniques and skills
- Participating in a research program
- Consideration of the ethical implications of scientific findings

GRADUATES IN CHEMISTRY WORK AS:

- Research scientists
- Research and laboratory technicians
- Educators
- Environmental, energy, or health and safety researchers for the government or industry
- Policy makers for government
- Forensic scientists
- Pharmacists and pharmaceutical researchers
- Dentists, physicians, veterinarians, and other health professionals

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



SOPHIA SMERAGLIUOLO '10
Research and Development Lab Manager
Paper Pak Industries

Sophia is responsible for managing tests conducted in cooperation with Academia, third party labs, customers, and suppliers. This includes monitoring various routine microbiology lab duties and designing and testing new products and chemical systems.

"Be persistent and take advantage of as many learning opportunities as you can. Stay focused and use your resources to help you through."

To connect with these and other APU alumni, email clasalumni@apu.edu

STEPS TO TAKE AS A MAJOR IN CHEMISTRY

OPTIONS TO EXPLORE AROUND APU

BE CALLED.

EXPLORE. DEFINE. RESEARCH. LEARN.

- **TAKE GENERAL CHEMISTRY AND LABORATORY (CHEM 151)**
Explore your interest in the field of chemistry by mastering the fundamentals of the 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 A CHEMISTRY CLUB MEETING**
Meet and socialize with others interested in the field of chemistry.

- **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.

- **ATTEND THE STUDENT-2-SCHOLAR PRESENTATION EVENT**
A Fall event showcasing student/faculty research over the previous year.
- **BUILD YOUR RESEARCH SKILLS**
Classroom-based laboratories and faculty/student research partnerships are essential components of the curriculum and your future career.
- **IF YOU'RE INTERESTED IN GRADUATE-LEVEL EDUCATION:**
Meet with professors and the Center for Career and Calling to narrow your choices and apply.
- **SECURE AN INTERNSHIP**
Utilize your connections in the department or contact the Center for Research in Science (CRIS) to find an internship in the field of chemistry and expand your knowledge of the working field of chemistry.
- **WORK ON-CAMPUS IN THE SCIENCE DEPARTMENT**
Work as an SI leader, laboratory teaching assistant, or grader in the department to come to know faculty personally and expand your knowledge in chemistry.

- **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.

- **SERVE IN CHEMISTRY LEADERSHIP**
Join and lead the chemistry club to reach out to others with interest in the field of chemistry.
- **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 CHEMISTRY GRADUATES:

[Yale](#)
[University of Southern California](#)
[Duke University](#)
[Drexel University of Medicine](#)
[University of Illinois College of Medicine](#)

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 Chemistry 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

CHEMISTRY ASSOCIATIONS:

[American Chemical Society](#)
[American Chemical Council](#)
[American Association of Chemistry Teachers](#)
[American Association of Clinical Chemistry](#)
[American Association for the Advancement of Science](#)

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 CHEMISTRY GRADUATES:

Roche/Genia
Intelligent Optical Systems
Integrated DNA Technologies
GenMark Diagnostics
South Coast Air Quality Management District
Department of the Navy
GFF, Inc.