The mission of the major in Chemical Biology is to provide students training in both biology and chemistry so that they can understand and investigate the chemical processes that take place at the molecular level in biological systems. The Chemical Biology program is a growing interdisciplinary major between the Departments of Biology and Chemistry that allows students to take advantage of excellent faculty and courses in both departments. The program’s hallmark is that all students are required to engage in faculty-directed independent research projects. Through this work, majors apply the principles they have learned in the classroom and laboratory to the solution of real-world scientific problems, and also gain hands-on experience in the use of state-of-the-art instrumentation, data analysis and interpretation. The program provides a strong academic background for students interested in pursuing careers that lie at the interface between chemistry and biology in the pharmaceutical, chemical and biochemical industries. Program alumni have also been accepted into top professional programs in medicine and public health. Recent graduates have gone on to careers in cellular and molecular biology, biochemistry, genetics, pharmacy and pharmacology, medicine, biotechnology, forensic science, and neuroscience.

**LEARN MORE ABOUT THE CHEMICAL BIOLOGY MAJOR:**

- Visit the Chemical Biology Department’s website: [http://www.sju.edu/academics/cas/chemicalbiology/index.html](http://www.sju.edu/academics/cas/chemicalbiology/index.html)
- Visit the College of Arts and Sciences Advising Support Center, located in Barbelin 122
- Contact the Chemical Biology Department to schedule a meeting with a faculty member by calling 610-660-1780
- Speak with current students in the major
- Schedule an appointment with the Career Development Center by calling 610-660-3100

**WHAT CAN I DO WITH A MAJOR IN CHEMICAL BIOLOGY?**

Whatever you put your mind to! You can learn much more at [www.onetonline.org](http://www.onetonline.org). Following are descriptions of just a few of the careers you might pursue:

**Biological Technician:** Assists biological and medical scientists in laboratories. Sets up, operates, and maintains laboratory instruments and equipment, monitors experiments, makes observations, and calculates and records results. May analyze organic substances, such as blood, food, and drugs.

**Molecular and Cellular Biologist:** Researches and studies cellular molecules and organelles to understand cell function and organization.

**Medical and Clinical Laboratory Technologists:** Performs complex medical laboratory tests for diagnosis, treatment, and prevention of disease. May train or supervise staff.

**Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products:** Sells goods for wholesalers or manufacturers where technical or scientific knowledge is required in such areas as biology, engineering, chemistry, and electronics, normally obtained from at least 2 years of post-secondary education.
HOW CAN I ENGAGE MY INTEREST IN CHEMICAL BIOLOGY OUTSIDE THE CLASSROOM?

There are so many opportunities to get involved at Saint Joseph’s University and beyond – and to develop experience in your major while doing so! Here are just a few:
A.I.B.S. (American Institute of Biological Sciences)  M.A.P.S. (Minority Association of Premedical Students)  Phi Beta Kappa
Chemical Biology Society  Molloy Chemical Society

OUTCOMES - A CLOSER LOOK AT SJU GRADUATES WITH DEGREES IN CHEMICAL BIOLOGY:

As depicted in the graph below, the majority of new graduates have started their careers in the Health/Medicine/Biotech fields. Others have selected a variety of industries. (Data from Saint Joseph’s University Career Development Center’s Post-Graduate Survey, 2008-2012 and the Saint Joseph’s University Hawk Career Network).

Here is a sampling of positions our graduates have accepted:

Associate Scientist  Medical Assistant  Research Assistant
Freelance Medical Editor  Medical Scribe  Scientist
Loan Officer  Oncology Sales Consultant  Scientist/Engineer

Organizations that have hired our new graduates include:

Berlex Laboratories  Laureate Pharma  Sanofi-Aventis
Children’s Hospital of Philadelphia  Merck & Co.  South New Jersey Industries
Janssen, Pharmaceutical  NationsFirst Financial  The Cosmetic Laser Center
Companies of Johnson & Johnson  Practice Plus  TriMark Publications
GlaxoSmithKline  Queen’s School of Business

Some of the graduate schools in which our new graduates have continued their education, in programs including:

Drexel University  Queens University  University of Medicine and Dentistry of New Jersey
New Jersey Institute of Technology  Rutgers University  University of Pennsylvania
Phila. College of Osteopathic Medicine  Saint Joseph’s University  Thomas Jefferson University

FURTHER ASSISTANCE WITH YOUR MAJOR AND CAREER OPTIONS

The Career Development Center can help you with the process of choosing a major and exploring your career options. For assistance, please call 610-660-3100 to schedule an appointment to meet with a Career Counselor.

GETTING THE JOB – SAMPLE CHEMICAL BIOLOGY MAJOR RESUME
Jane Doe  
123 Anywhere Road  
Someplace, PA 12345  
123.456.7890  
appropriate.email@gmail.com  

SUMMARY:  
Senior at Saint Joseph's University, looking to obtain a research position in a scientific laboratory that makes use of a background in both chemistry and biology. Experience in performing research in a laboratory setting as well as teaching others theories and practices related to biology.

EDUCATION:  
Saint Joseph's University  
Philadelphia, PA  
Bachelor of Science in Chemical Biology  
May 2015  
• Full Scholarship Recipient  
• GPA: 3.44/4.00

RELEVANT COURSEWORK:  
• Organic Chemistry II and Lab, Spring 2013  
• Cognitive Neuroscience, Spring 2013  
• Organismic Biology and Lab, Fall 2012

EMPLOYMENT:  
Research Volunteer  
January 2013-present  
Saint Joseph’s University Biology Lab  
Philadelphia, PA  
• Work to label and determine localization of Retinal Pigment Epithelial cells from fish eyes.  
• Research how RPE-65 reacts to different light exposures.  

Data Analyst  
Summer 2010- present  
Ardem Incorporated  
Hillsborough, NJ  
• Worked in accounting for this data management company to generate job cost data, collect payables data and create customer invoicing; worked with QuickBooks software.  
• Operated production scanning equipment for high volume scanning.

Teaching Assistant  
August 2012-December 2012  
Saint Joseph’s University Chemistry Lab  
Philadelphia, PA  
• Helped students to carry out different experiments.  
• Conducted experiments such as titrations, melting and boiling points, and heat capacity.

ACTIVITIES:  
Weekly Service Volunteer, Gompers Elementary School  
January 2013-present  
Koinanea Participant, Campus Ministry Program  
September 2012- present  
Class Representative, Chemical Biology Society  
September 2011- present  
Volunteer, Summer Immersion Program to Guatemala  
July 2011  
Volunteer, Indian Reservation in New Mexico  
April 2011

COMPUTER SKILLS  
• SPSS Statistics  
• Microsoft Office (Word, Excel, PowerPoint)  
• QuickBooks Software