Biology is the study of living things, their form, function and evolution, and the interactions of living things with each other and with the environment. The biology program at Saint Joseph’s exposes you to all levels of biological organization, from the sub-cellular to the ecosystem. This is accomplished through core courses, a distribution requirement and free electives. Areas of teaching and research cover an extensive range of topics including cell and molecular biology, microbiology, genetics, plant biology, evolution, physiology, ecology, bioinformatics, biophysics and animal behavior. Emphasizing a hands-on, experimental approach in all courses, the biology department has outstanding equipment and facilities, including an animal biodiversity lab, a greenhouse, plant growth chambers, confocal and electron microscopes and equipment for molecular biology research, all available for student use. The biology program prepares students for a wide range of career options. Many of our graduates enter medical and health profession schools, graduate schools for M.S. or Ph.D. degrees, K-12 education, or industry jobs.

**LEARN MORE ABOUT THE BIOLOGY MAJOR:**
- Visit the Biology Department’s website: [www.sju.edu/academics/cas/biology](http://www.sju.edu/academics/cas/biology)
- Visit the College of Arts and Sciences Advising Support Center located in Barbelin 122
- Contact the Biology Department to schedule a meeting with a faculty member by calling 610-660-1820
- 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 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:

**Biologist:** Researches or studies basic principles of plant and animal life, such as origin, relationship, development, anatomy, and functions.

**Biology Teacher:** Teaches courses in biological sciences.

**Clinical Research Coordinator:** Plans, directs, or coordinates clinical research projects. Directs the activities of workers engaged in clinical research projects to ensure compliance with protocols and overall clinical objectives. May evaluate and analyze clinical data.

**Lab 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.
HOW CAN I ENGAGE MY INTEREST IN 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)
- Alpha Epsilon Delta
- M.A.P.S. (Minority Association of Premedical Students)
- Sigma Xi
- Weekly Service

OUTCOMES – A CLOSER LOOK AT SJU GRADUATES WITH DEGREES IN BIOLOGY:
As depicted in the chart below, the majority of new graduates have started their careers in the field of biology. Many others have selected a variety of industries. (Data from Saint Joseph’s University Career Development Center’s Post-Graduation Survey, 2008 – 2012.)

Here is a sampling of positions our graduates have accepted:

- Aide
- Bio Technician
- Biology Teacher
- Cell Culture Scientist
- Certified Nurse Assistant
- Clinical Technician
- Dental Assistant
- Director of IT Department
- Drug Safety and Surveillance
- Emergency Technician
- Institutional Research
- Insurance Agent
- Lab Technician
- Medical Assistant
- Medical Scribe
- Pharmacy Technician
- Physical Therapy Aide
- Research Assistant
- Research Specialist
- Research Study Assistant
- Researcher
- Sales Lead
- Therapy Aide
- Youth Advocate

Organizations that have hired our graduates include:

- Barnes Foundation
- Bryn Mawr Rehab Hospital
- Cape Regional Medical Center
- CATCH, INC
- Country Day School of the Sacred Heart
- Easton Hospital
- Erasz Choilim Health Center
- Excel Orthopedic Rehabilitation
- Fox Chase Cancer Center
- GlaxoSmithKline
- Hospital of the University of Penn
- Lancaster General Hospital
- Lankenau Institute for Medical Research
- Memorial Sloan-Kettering Cancer Center
- Merck & Co., Inc.
Some of the graduate schools in which our students have continued their education, in programs including Education, Humanities, Arts, Medicine, Health Care, Physical/Life Sciences, Social Sciences and Law:

Arcadia University
Drexel University
Georgetown University
NY College of Osteopathic Medicine
Medicine
Pace University
Pennsylvania State University

Average Starting Salary – Biology Majors – Classes of 2008-2012

<table>
<thead>
<tr>
<th>Graduation Year</th>
<th># of Respondents</th>
<th>Average Salary</th>
<th>Average Bonus</th>
<th># of Bonuses</th>
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<td>$25,000</td>
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<td>2009</td>
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<tr>
<td>2008</td>
<td>Too little data to report (number of respondents was less than 5)</td>
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</tbody>
</table>

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 BIOLOGY MAJOR RESUME

See below
EDUCATION
Saint Joseph’s University, Philadelphia, PA
Bachelor of Science in Biology, May 2013
- GPA: 3.03/4.0 | GRE Math Score: 750/800 | Math GPA: 4.0/4.0

PROFESSIONAL EXPERIENCE
Wills Eye Institute, Philadelphia, PA
Research Intern, June 2012 – August 2012
- Participated in different aspects of grant writing.
- Attended lectures addressing research methodology, clinical research, the different facets of ophthalmology, and IRB.
- Performed medical chart reviews and participated in social media survey.
- Worked independently with a doctor (Dr. Alex Levin) on a retinal hemorrhage classification system research study.

University of Pennsylvania, School of Veterinary Medicine, Philadelphia, PA
Emergency Service Volunteer, February 2011 – December 2011
- Assisted head doctors in emergency medical situations.
- Provided necessary tools to perform emergency surgery operations.
- Delivered blood tests to pathology labs and acquired medicine necessary for patient care.
- Restocked medical equipment and pharmaceutical drugs.
- Worked collectively with the veterinary medical doctors and certified veterinary technicians.

University of Pennsylvania, School of Veterinary Medicine, Philadelphia, PA
Summer VETS Pre-Medical Student, June 2011
- Participated in cardiology and medicine rotations with fourth year veterinary students and doctors.
- Engaged in laboratory and lectures such as pathology, toxicology, public health, and anatomy.
- Studied large animal behavior and Sports Medicine at the New Bolton Center.
- Learned and understood the challenges and rewards of veterinary medicine.

Saint Joseph’s University: Prof. Tudor’s Laboratory, Philadelphia, PA
Lab Work Study Student, September 2010 – December 2010
- Performed necessary lab techniques (for example, making cells, PCR, and using lab tools including pipettes) to isolate DNA from predatory bacteria to determine the genes present within those bacteria that make them predatory.

Saint Joseph’s University Summer Scholars, Philadelphia, PA
Summer Scholar and Undergraduate Research Assistant, January 2010 - August 2010
- Examined the role of Myosin Ie in the cell migration of mouse melanoma cells using time-lapse microscopy.
- Assisted in research done in preparation to be included in a paper to be published.
- Analyzed data, problem solved, and adjusted to the dynamic variability of researching and using live cell lines.

HONORS/AWARDS AND LEADERSHIP
- Standards Board of Sigma Phi Epsilon, Spring 2010 – May 2012
- University of Pennsylvania, Summer VETS Certificate of Award, June 2011

SKILLS
Scientific: Bioinformatics, Biometrics and Modeling, Neurobiology, Genetics, Organic Chemistry, Physics
Technical: Proficient in Microsoft Word, Excel, PowerPoint, Advanced Mathematical, Biological, Laboratory Skills
Language: Fluent in English and Advanced Italian