The Department of Mathematics at Saint Joseph's University shapes its mission around the classical and modern aspects of the discipline, emphasizing both the practical and the theoretical. It is our goal to train students to be careful, precise, and mature thinkers. As faculty, we strive to give our students the intellectual preparation they need to apply what they have learned, to communicate it to others, and to continue their education for the rest of their lives.

The Department of Mathematics offers a B.S. degree in Mathematics, a B.S. degree in Actuarial Science, and several mathematics education programs, including a five-year B.S./M.S. program in Mathematics and Secondary Education.

**LEARN MORE ABOUT THE MATHEMATICS MAJOR:**

- Visit the Mathematics Department Website: [www.sju.edu/academics/cas/math](http://www.sju.edu/academics/cas/math)
- Visit the College of Arts and Sciences Advising Support Center, located in Barbelin 122
- Contact the Mathematics Department to schedule a meeting with a faculty member by calling 610-660-1540
- Speak with current students in the major
- Schedule an appointment with the Career Development Center 610-660-3100

**WHAT CAN I DO WITH A MAJOR IN MATHEMATICS?**

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:

**Actuary:** Analyzes statistical data, such as mortality, accident, sickness, disability, and retirement rates and constructs probability tables to forecast risk and liability for payment of future benefits. May ascertain premium rates required and cash reserves necessary to ensure payment of future benefits.

**Financial Analyst:** Conducts quantitative analyses of information affecting investment programs of public or private institutions.

**Mathematician:** Conducts research in fundamental mathematics or in application of mathematical techniques to science, management, and other fields. Solves or directs solutions to problems in various fields by mathematical methods.

**Mathematics Teacher:** Teaches courses pertaining to mathematical concepts, statistics, and actuarial science and to the application of original and standardized mathematical techniques in solving specific problems and situations.

**Securities and Commodities Trader:** Buys and sells securities and commodities to transfer debt, capital, or risk. Establishes and negotiates unit prices and terms of sale.
HOW CAN I ENGAGE MY INTEREST IN MATHEMATICS OUTSIDE THE CLASSROOM?

Pi Mu Epsilon Honor Society
American Mathematical Society
American Statistical Association
Mathematical Association of America
Society for Industrial and Applied Mathematics

Departmental Activities and Special Programs
(http://www.sju.edu/int/academics/cas/math/index.html)
William Lowell Putnam Mathematical Competition

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

As depicted in the chart below, recent graduates have started their careers in a variety of industries, education being the most popular.

Here is a sampling of positions our graduates have accepted:
Actuarial Analyst
Assistant Trader
Computer Programmer
Mathematics Teacher
Systems Engineering Associate
Teacher
Underwriting Assistant

Here is a sampling of additional job titles:
Applications Programmer
Contract Administrator
Data Analyst
Financial Auditor
Loan/Credit Officer
Real Estate Appraiser
Statistical Assistant
Technical Writer
Assessor
Cost Estimator/Analyst
Database Manager
Financial Consultant
Market Research Analyst
Research Analyst
Surveyor
Compensation/Benefits Specialist
Credit Analyst
Financial Analyst
Financial Sales Representative
Operations Research Analyst
Software Support Specialist
Tax Examiner

Some of the organizations that have hired our graduates include:
Abington School District
Achievability Project
Bishop Shanahan High School
Eastern Research Services
Jesuit Volunteer Corps
Lockheed Martin
Mount St. Joseph Academy
Philadelphia Insurance Companies
St. Joseph's Preparatory School
State Farm
Susquehanna International Group
United States Liability Insurance
Sample work settings that hire Mathematics majors include:

<table>
<thead>
<tr>
<th>Accounting Firms</th>
<th>Actuarial Firms</th>
<th>Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Service Firms</td>
<td>Colleges/Universities</td>
<td>Computer Science &amp; Software Firms</td>
</tr>
<tr>
<td>Consulting Firms</td>
<td>Educational Institutions</td>
<td>Engineering Firms</td>
</tr>
<tr>
<td>Financial Institutions</td>
<td>Government Agencies</td>
<td>Insurance Agencies</td>
</tr>
<tr>
<td>Investment Firms</td>
<td>Nonprofit Organizations</td>
<td>Real Estate</td>
</tr>
<tr>
<td>Research/Development Firms</td>
<td>Securities Firms</td>
<td>Utility/Energy Firms</td>
</tr>
</tbody>
</table>

Some of the graduate schools in which our students have continued their education, in programs including the Arts & Humanities, Education and Law:

- Cambridge University
- Duke University
- Lehigh University
- Saint Joseph's University
- Temple University
- University of Pennsylvania

**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 MATHEMATICS MAJOR RESUME (SEE BELOW)**
Molly L. Math  
mollymath@gmail.com  
610-555-1212

Campus Address:  
742 McShain Avenue, Apartment A  
Philadelphia, PA 19131

Permanent Address:  
2255 Data Drive  
Actuary, NJ 08055

EDUCATION
Saint Joseph’s University  
Philadelphia, PA  
Bachelor of Science, Major in Mathematics, Minor in Philosophy, GPA 3.42  
May 2013

- Presidential Scholarship, Saint Joseph’s University
- SJU Summer Scholar’s Research Stipend
- The National Society of Collegiate Scholars

WORK EXPERIENCE
Saint Joseph’s University  
Philadelphia, PA  
Tutor, Mathematics  
January 2013-Present

- Provide instruction to a freshman high school student to increase Algebra 1 comprehension.
- Responsible for presenting information in a clear and understandable way.
- Reconstruct lessons and ideologies presented during class time to further her understanding and improve student confidence.

Landmark Americana  
Philadelphia, PA  
Server  
September - December 2012

- Provided professional table service and fostered guest satisfaction within a demanding and fast paced atmosphere.
- Collaborated with a team of servers to maintain efficient customer service.
- Trained new employees and mastered operational skills of the restaurant computer system.
- Strengthened time management skills to balance education and work responsibilities.

Saint Joseph’s University  
Philadelphia, PA  
Summer Scholars Undergraduate Research  
Summer 2012

- Assisted PhD math researcher to develop insight in the field of coding theory and public-key encryption.
- Studied the operation of the RSA Algorithm, the Rabin-Solovay-Strassen Algorithm, as well as the Agrawal-Kayal-Saxena Algorithm.
- Utilized the program Jgrasp to develop JavaScript codes to implement complex mathematical proofs.

LEADERSHIP ACTIVITIES
Saint Joseph’s Mathematics Club  
Philadelphia, PA  
Event Manager  
January 2012-Present

- Coordinated an annual Pi Day event to raise money for the mathematics department Relay for Life team where all proceeds were given to the American Cancer Society.
- Worked in conjunction with other officers to host an on campus Christmas bake sale to acquire funds for the Salvation Army.

Alpha Gamma Delta Fraternity  
Philadelphia, PA  
Website Coordinator  
January 2011- January 2012

- Responsible for maintaining the Alpha Gamma Delta Zeta Pi chapter website and increasing the digital footprint via Twitter.
- Trained under the Webinar software system to establish navigational skills, used to improve the website design layout.
- Acted as a liaison between chapter officers and the public to communicate all current information as well as establish an officer directory for external inquiries.

COMMUNITY SERVICE
- Juvenile Diabetes Research Foundation Walk to Cure Diabetes Volunteer  
2010-Present
- Alpha Gamma Delta Foundation  
2010-Present