



The demand for qualified mathematically-trained professionals is found in nearly every industry and profession, including biological and physical sciences, computer science, economics, engineering, finance, operations research, and political science. The Mathematics Department offers two undergraduate majors, a **Bachelor of Arts in Mathematics** and a **Bachelor of Science in Mathematics**, as well as minors in Mathematics and in Statistics. All of our programs, while structured, are flexible and can be tailored to suit our students' individual goals.

Our programs provide students with the logical reasoning, quantitative, and analytical thinking skills necessary to compete in today's complex global environment. We continually strive to improve our students' knowledge acquisition through ongoing refinement of the instructional process that blends theory with practice. Many of our courses are offered online.

Our major classes are generally small, with most classes having between 10 and 20 students. This allows for a much greater degree of individualized attention for our students. In our capstone course, students learn to write papers in mathematics. Some of these papers, co-authored with our faculty, have appeared in mathematical journals.

BA IN MATHEMATICS

This degree is ideal for those students who wish to attain a broad-based liberal arts and science education. It is a generalized program that enables students to develop critical-thinking, problem solving, analytical, and quantitative skills. Its flexibility allows students to pursue a double major or complete up to two minors. Many of the mathematics majors are double majors in Economics or Computer Science.

BS IN MATHEMATICS

This degree is ideal for those students who desire to achieve a more in-depth education in mathematics. It helps prepare students for employment in quantitative or technical fields such as actuarial science, computer science, finance, operations research, statistics, and science, or for graduate study. Students are encouraged to choose a minor designed to enhance their professional aspirations.

STUDENT SUCCESS

Mathematics students have gone on to work as actuaries, researchers, college professors, university deans, department chairs, media analysts, and entrepreneurs.

- Two graduates have successful tutoring businesses.
- At least five of our students, **Fred Buckley**, **Lisa Fauci**, **Andrea Marchese '95**, **Nermine ElSissi '02**, and **Rebecca Conley '07** have PhDs in Mathematics and are now or were college professors.
- **Andrew Williams '09** is an actuary at AXA Equitable.
- **Qinghui Ji '11** is a statistician working at Facebook.
- **Sonia Greenberg '13** works at Thomson Reuters.
- **Samantha Arato '14** is an intern at NASA.
- **Kristin Butzke '15** is a data analyst at UBS.
- **Janice Irwin (Caimares) '15** is a bilingual mathematics teacher.



Casayndra Basarab received her PhD in Mathematics from the New Jersey Institute of Technology in 2016 and joined Pace in 2016. Her research interest is in Dynamical Systems and Nonlinear Waves.

Eduardo Chan received his PhD in Mathematics from the University of the Philippines in 1998. He joined Pace in Fall 2016 after years of teaching at the University of the Philippines and Mapua University. He has published papers on differential equations.

Shamita Dutta Gupta began teaching at Pace in 2001 and received her PhD in Mathematics in 1995 from Brown University. She has published papers on number theory and actuarial mathematics.

Brian R. Evans began teaching at Pace in 2007 and received his PhD in Mathematics Education from Temple University. He conducts research in mathematics learning and has published on topics such as culturally responsive pedagogy and cognitive reframing theory.

Yu Gu began teaching at Pace in 2018 and is completing his PhD in Mathematics Education at Teachers College, Columbia

University. His research interests are pedagogical development and college educational technology. He has co-authored articles on clustering and bioclustering in machine learning.

Yana Shvartsberg joined Pace in 2016 and is completing her PhD in Mathematics Education at Teachers College, Columbia University. Her research interests include history of mathematics education, female mathematics education, and social factors that affect students' attitude towards mathematics in high school and college.

Meng Xu obtained his PhD in Mathematics from the University of Wyoming in 2011. He joined Pace in the fall of 2016. Meng Xu's research interests include applied statistics, ecological modeling and stochastic processes. He has supervised several student projects at Pace.

Joshua Yarmish, a member of the Mathematics Department since 1971, received his PhD in Mathematics in 1972 from New York University. He has written many articles in graph theory, numerical analysis, and game theory and is the author of computer texts and foundation texts on pre-algebra and algebra.



Nira Herrmann came to Pace in 2004 as Dean of Dyson College of Arts and Sciences, a position she held until June 2020. She received her PhD in Statistics from Stanford University. She later earned her MS in Computer Science from Rutgers University. She has published co-authored papers in medical applications of statistics, curtailed sampling, and computer science pedagogy and has supervised undergraduate and graduate student research.