DEPARTMENT OF MATHEMATICAL, INFORMATION, AND COMPUTER SCIENCES

Mission Statement

The Mathematical, Information, and Computer Sciences department at Point Loma Nazarene University is committed to maintaining a curriculum that provides its students with the tools to be productive, the passion to continue learning, and Christian perspectives to provide a basis for making sound value judgments.

Purposes

1. To prepare students for:
    a. careers that use mathematics, data science, computer science, and information systems in business, industry, government and the non-profit sector.
    b. graduate study in fields related to mathematics, data science, computer science, and information systems.
    c. teaching mathematics and computer science at the secondary level.
2. To prepare students to apply their knowledge and utilize appropriate technology to solve problems.
3. To educate students to speak and write about their work with precision, clarity, and organization.
4. To help students gain an understanding of, and appreciation for, the historical development, contemporary progress, and societal role of mathematics, data science, information systems, and computer science.
5. To integrate the study of mathematics, data science, information systems, and computer science with the Christian liberal arts.

Tradition of Excellence

The Department of Mathematical, Information, and Computer Sciences features a highly skilled team of professors who share their wealth of knowledge with students both in and out of the classroom. The personal attention of the faculty and innovative learning environment help students to comprehend concepts in mathematics, information systems, and computer science. A number of our students gain practical work experience via internships at Naval Information Warfare Center Pacific (NIWC) and many other local technology firms. The accomplished faculty also conducts summer research with current students. Recently, topics have included machine learning, statistical analysis of large data sets, stereo vision using genetic algorithms, artificial intelligence, biomathematics, and computer architecture. These types of research opportunities provide experience with modern technology and current real-world applications.

Career Opportunities

Students who graduate with a degree from the Department of Mathematical, Information, and Computer Sciences are prepared to succeed. Students have chosen careers in actuarial science, cyber security, information science, applied mathematics, statistics, data science, espionage, teaching, data analytics, software engineering, project management, and systems analysis.

Faculty

Catherine Crockett, Ph.D.
University of California, Riverside

Elizabeth Crow, Ph.D.
University of California, Santa Barbara

Gregory Crow, Ph.D.
University of Notre Dame

Kyle Havens, M.S.
San Diego State University

Michael Leih, Ph.D.
Claremont Graduate University

Benjamin Mood, Ph.D.
University of Florida, Gainesville

Noah Spahn, M.S.
California State University, Fullerton

Carlson Triebold, Ph.D.
Purdue University

Maria Zack, Ph.D.
University of California, San Diego

To view requirements for majors, minors, and certificates, see the Degree Program Information (https://pointloma-public.courseleaf.com/tug-catalog/degree-program-information/) page.

- Applied Mathematics, B.S. (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/applied-mathematics-bs/)
- Computer Science: Cyber Security, B.S. (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/computer-science-cyber-security-bs/)
- Computer Science: Software Engineering, B.A. (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/computer-science-software-engineering-ba/)
- Computer Science: Software Engineering, B.S. (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/computer-science-software-engineering-bs/)
- Computer Science: Technical Applications, B.S. (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/computer-science-technical-applications-bs/)
- Data Science, B.S. (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/data-science-bs/)
- Engineering, B.S.E. (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/engineering-bse/)
- Information Systems, B.S. (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/information-systems-bs/)
- Mathematics, B.A. (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/mathematics-ba/)
- Mathematics, B.A. for Associate Degree for Transfer (ADT) Students (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/mathematics-ba-adt/)

- Mathematics, B.S. (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/mathematics-bs/)
- Computer Science Minor (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/computer-science-minor/)
- Computer Technology - Business Minor (Math and Computer Science Majors) (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/computer-technology-business-minor/)
- Computer Technology - Marketing Minor (Math and Computer Science Majors) (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/computer-technology-marketing-minor/)
- Data Analytics Minor (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/data-analytics-minor/)
- Mathematics Minor (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/mathematics-minor/)
- Software Engineering Minor (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/software-engineering-minor/)
- Software Engineering Certificate (https://pointloma-public.courseleaf.com/tug-catalog/colleges-schools-departments/stem/mics/software-engineering-certificate/)