

B.S. in Computational Mathematics

The Computational Mathematics program hosted within the College of Arts & Sciences, prepares students to operate at the intersection of applied mathematics, computer science, and scientific application areas. Designed with a strong emphasis on real-world applications, and hands-on experience, the program equips students to implement computational methods and develop models to analyze and solve complex problems arising from wide range of fields.

All students in the Computational Mathematics program are encouraged to participate in industrial or faculty-mentored research opportunities, gaining valuable experience in applying mathematical and computational tools in professional settings. These opportunities foster collaboration, innovation, and career readiness.

By the end of their second year, students select one of two specialized tracks: the Data Science Track or the Engineering Application Track, allowing them to tailor their studies to their interests and career goals. In addition, students complete a minor or second major that complements the program core and strengthens their expertise in a related discipline.

With its strong emphasis on applied mathematics, computing, and interdisciplinary applications, the program prepares graduates for entry-level positions in industry and provides a solid foundation for graduate study, including pathways such as the Master's in Data Science.

Data Science Track

- Designed for students interested in developing expertise in this high-growth field
- Uses interdisciplinary methods to extract knowledge from large datasets
- Builds a strong foundation in creating data-driven insights to solve real-world problems

Engineering Application Track

- Designed for students interested in computationally intensive, project-based coursework
- Provides interdisciplinary knowledge in fundamental mathematical sciences
- Introduces concepts in computation, optimal decision-making, high-performance computing, and statistical inference