Mathematics & Computational Sciences, PhD
with an empahsis in Mathematics

Besides its intrinsic beauty, mathematics is nowadays the foundation for scientific development and modern life and production. This Ph.D. program is designed to provide the highest level of academic study and research in mathematical and computational sciences. With this program, the students will acquire a broad knowledge of mathematics/statistics and improve problem-solving abilities and analytical skills. The students will delve deeper into the field they love and conduct research with respected faculty. The program can be completed in the evening.

Career Outlook

The goal of this program is to produce highly qualified professionals for teaching and research positions in the academic world, as well as equivalent positions in industry and government. Our graduates work in education, government, and industry. According to CareerCast.com, mathematician/statistician is among the 10 Best Jobs of 2019, with projecting growth of over 30 percent.

Future Career Options

- Researcher
- University teacher
- Mathematician
- Statistician
- Data scientist
- Mathematical modeler

Skills developed through degree completion

- Acquire competency in logical reasoning, handling of advanced mathematical concepts and applying mathematical models to real-world problems
- Demonstrate ability to understand and explain core mathematical concepts related to their area of specialty: Algebra/Geometry/Topology; Applied Mathematics/Computational Mathematics; Probability and Statistics; Data Science
- Formulate new research problems
- Demonstrate understanding of current relevant literature
- Perform independent research in pure and applied mathematics and create original research
- Demonstrate expertise in their research area
- Communicate his/her research effectively in writing and present clearly advanced mathematical ideas to a mathematics audience

4-YEAR ACADEMIC MAP

Successful alumni have gone on to fulfill many of the opportunities above. Additional possibilities are taken from the Bureau of Labor Statistics.
Contact an advisor to discuss additional future career options.

Mathematics & Computational Sciences, PhD

Emphasis in Mathematics

Year 1

FALL SEMESTER *(9 credit hours)*

MATH 4100: Real Analysis I (3)

MATH 4160: Complex Analysis I (3)

MATH Elective (3)

SPRING SEMESTER *(9 credit hours)*

MATH 4450: Linear Algebra (3)

MATH Elective (3)

MATH Elective (3)

Year 2

FALL SEMESTER *(9 credit hours)*

MATH Elective (3)

MATH Elective (3)

MATH Elective (3)

SPRING SEMESTER *(9 credit hours)*

MATH Elective (3)

MATH Elective (3)

MATH Elective (3)

Year 3

FALL SEMESTER *(9 credit hours)*

MATH Elective (3)

MATH Elective (3)

MATH Elective (3)

SPRING SEMESTER *(9 credit hours)*

MATH Elective (3)

MATH Elective (3)

MATH Elective (3)

Year 4

FALL SEMESTER *(6 credit hours)*

MATH Elective (3)

MATH Elective (3)

Degree completed!

Last Updated May 2023

☼ – Summer and Intersession courses

Don't forget that summers and winter breaks are a way to fast-track your route to degree completion – and lighten your load during fall and spring!

🎓 – Apply for Graduation

Don't forget that students should apply for graduation the semster that you intend to graduate, so apply prior to the deadline!