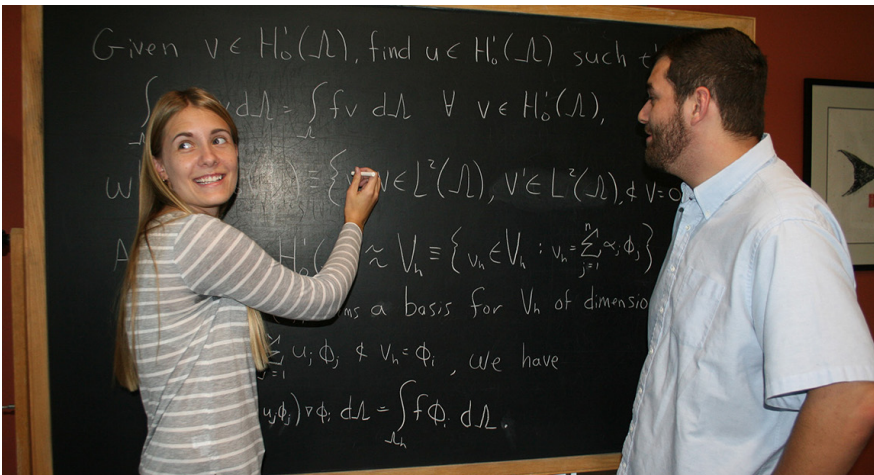


APPLIED MATHEMATICS

Applied Mathematics majors at RWU use advanced mathematics to solve real problems, often in the sciences, engineering, or medical fields. Applied Mathematics students are prepared for careers working with cancer researchers, engineers, public health scientists, and others, applying sophisticated equations and computer modeling software to find solutions to serious issues.



STUDENT EXPERIENCE

Learn and Do More at RWU

With a focus on experiential learning at RWU, Applied Mathematics majors:

- Collaborate on research with faculty members who are experts in their field. Students co-authored papers with faculty on calculating a superellipsoid-shaped spacecraft for NASA's Mars Project and using computational math to determine why neurostimulation is effective in treating Parkinson's disease.
- Partner with community organizations and businesses to solve problems that matter, such as analyzing the effectiveness of fertilizer application for a blueberry farmer and building a statistical model to evaluate life satisfaction for the Rhode Island Department of Health.
- Sharpen their research presentation skills at regional and national conferences like the national Joint Mathematics Meeting, NSF's Established Program to Stimulate Competitive Research (EPSCoR), and NASA Rhode Island Space Grant Consortium meeting.

- + Do you love solving math problems but wonder how you'll use this skill in the real world?
- + Are you passionate about using your ability to make a difference in society or protect the environment?

CAREER OUTLOOK

RWU Applied Mathematics alumni are working in several industries:

- Banking/Investment
- Consulting
- Insurance
- Pharmaceutical
- Software and IT service
- Computer Science
- Engineering

ALUMNI SPOTLIGHT

👉 Grad school is about researching and being able to apply yourself outside the classroom, and this [NASA research project] was like a practice run. I was able to do it way sooner than grad school and that's a real advantage. 🗨️

Hien Ngo '18

Applied Math and Biology double major
Science Fellow at City on a Hill Charter Public Schools in Boston
Master of Education program at Boston University

CURRICULUM

Applied Mathematics at RWU moves beyond theory, blending the study of mathematics with a wide array of applications in many fields, including biology, chemistry, environmental science, scientific computing, physics, and statistics.

You will work with teams on projects that bring in multiple research perspectives, from sciences to engineering. Using cutting-edge software programs to solve complex problems, you'll learn to collaborate with others and excel at finding solutions.

Your studies will take a deep dive into the application of a range of mathematics, including calculus, linear algebra, mathematical modeling, statistics, differential equations, and numerical analysis. You will also take two science courses, choosing from biology, chemistry, or physics.

Guaranteed Research Opportunities

Undergraduate research is integrated into the Applied Mathematics curriculum. Students take a three-credit capstone course and have many opportunities to collaborate with faculty on research. Many of our students have even received funding through fellowships. Students present their research at national conferences, where they often win awards while competing with students from universities like Harvard and MIT.

These are just some of their research topics:

- Simulating Transcranial Direct Current Stimulation to Investigate the Short-Term Reduction of Alzheimer's and Parkinson's Disease Symptoms.
- Foundations of General Relativity & Speculation on Einstein-Grossman Collaboration.
- Evolution of MicroRNA Diversity and Regulation Statistical Modeling.
- Radiosity Equation Model for an Interior Space Illumination Design.
- Do Microsoft Sales Drive the Client to Upgrade their Operating System?

Prepare for Graduate School

Our students are well-prepared for admission to graduate school and have attended:

- Brown University
- Dartmouth College
- Harvard University
- London School of Economics and Political Science
- New York University
- Worcester Polytechnic Institute

OVER 80% OF RWU STUDENTS GRADUATE WITH MORE THAN JUST A SINGLE MAJOR

Design your experience with your passion and have a unique career advantage with a minor or double major. Many students combine **Applied Mathematics** with:

- Biology
- Engineering
- Computer Science
- Public Health

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