



FRESHMAN RESEARCH IMMERSION (FRI)

WALK IN A FRESHMAN. WALK OUT A RESEARCHER!

Want to conduct cutting-edge research within the next year? Interested in working with leading researchers and tackling important global issues starting your freshman year? **Binghamton University's Freshman Research Immersion program provides first-year STEM (science-technology-engineering-mathematics) students with a research experience in sciences and engineering.** Working with a team of faculty and fellow freshmen, you'll do real research to investigate serious issues facing the world today — long before most college students get the opportunity. By the end of this innovative, three-semester program, you'll be a tried-and-true researcher, well-positioned for success in advanced studies or your chosen career.

RESEARCH STREAMS

Students conduct research in what are known as Research Streams, specially created courses for emerging fields in sciences and engineering. Each Research Stream has a dedicated laboratory designed and equipped for its specific type of research and supervised by a team of three to five faculty members. You'll learn how to talk about your research, collaborate and identify your next research steps.

The FRI program is the only one of its kind in the northeast, and one of just four in the country!

2018-2019 RESEARCH STREAMS

- **BIOGEOCHEMISTRY (environmental sciences)**
Focus on sustainability of earth systems from perspective of health of humans and ecosystems
- **BIOMEDICAL CHEMISTRY (biochemistry)**
Focus on molecular targets for treatment and delivery
- **COMMUNITY AND GLOBAL PUBLIC HEALTH (big data, biostatistics, environmental health, epidemiology)** Focus on collecting and analyzing data to create better solutions to health problems and better inform public health policy
- **ECOLOGICAL GENETICS** Focus on current issues in species interaction, by genetic techniques at biochemical, cellular and/or organismal levels
- **ENVIRONMENTAL VISUALIZATION WITH DRONES (archaeology, environmental studies, geology)** Focus on natural and archaeological resources applying geospatial mapping technologies across landscapes and beneath the earth's surface
- **IMAGE AND ACOUSTIC SIGNALS ANALYSIS (computer science/engineering)** Focus on multimedia, human-computer interaction, acoustics and computer vision
- **MICROBIAL BIOFILMS IN HUMAN HEALTH (microbiology)** Focus on biofilms that plague industry and hospitals
- **MOLECULAR AND BIOMEDICAL ANTHROPOLOGY** Focus on evolutionary medicine, in particular with reference to malaria, obesity and Lyme disease
- **NEUROSCIENCE (behavior/biochemistry/cell biology)** Focus on neuro-degenerative diseases
- **SMART ENERGY (chemistry/materials science/physics)** Focus on harvesting and storing energy

“Getting hands-on research at such an early stage in my college career is an opportunity I couldn’t have had at most other schools. I know this experience will help me reach my future goal of becoming a doctor.”

—Alfred Malomo

BENEFITS OF FRI

IMPACT

Our research teams are attacking big-world issues — from developing clean energy to preventing neuro-degeneration to understanding climate change. You will be a valuable contributor to the solution.

GROWTH

Your personal and professional growth: turbocharged. You'll develop critical thinking, teamwork and collaborative research skills early.

ACCESS

You'll build powerful connections with influential Binghamton professors and lay the foundation for requesting valuable letters of recommendation for scholarship, award, internship and graduate school submissions.

NETWORKING

You'll make essential connections and build your academic credentials, which employers and graduate programs carefully evaluate.

DIRECTION

Start off on a solid foundation toward your chosen career or advanced academic studies. You'll have a better idea of what you want to do in college and beyond.

THREE-SEMESTER COURSE SEQUENCE

Learn research techniques, acquire background on a research question and follow through on the initial phases of a real research problem.

- First semester — Research Methods Seminar
- Second and third semesters — Research Stream

OPPORTUNITIES AFTER FRI

You will have access to a wide variety of opportunities after FRI. That's because students who enroll in FRI acquire all 10 of the most highly-ranked skills employers are seeking. These include the ability to work in a team structure, the ability to make decisions and solve problems and the ability to analyze quantitative data (2018 Job Outlook, National Association of Colleges and Employers (NACE).

The list of post-FRI opportunities include: continued research in faculty laboratories; industry internships; collaboration with the Southern Tier High Technology Incubator; and national fellowships

INVITED INTO FRI

Students invited to enroll in the FRI program will receive a formal letter of invitation from Undergraduate Admissions.

Since space in the program is limited, we cannot guarantee that all students invited will receive their first-choice stream.

The deadline to pay your enrollment deposit is May 1. Details will be provided when reserving your program spot.



FOR MORE INFORMATION
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