



**BIO MED
STEM Workshop**
INSIDE THE SCIENCE OF DISCOVERY
HOSTED BY NIAGARA UNIVERSITY

PLEASE CONTACT
ROB TOBER AT TOBER@NIAGARA.EDU WITH ANY QUESTIONS.
73 HIGH STREET • BUFFALO NY 14203

NIAGARA UNIVERSITY
BIO MEDICAL
RESEARCH INSTITUTE



JOIN OUR
BIO MED
STEM Workshop
INSIDE THE SCIENCE OF DISCOVERY
HOSTED BY NIAGARA UNIVERSITY

August 2-8, 2026

FUELING THE Future of Science

Meet Dr. Mary P. McCourt

Dr. McCourt, a senior scientist who specializes in the areas of physical and computational chemistry, is driven by a personal mission to improve human health. Inspired by personal loss, she dedicated her career to advancing drug delivery research, particularly for brain tumors.

Her groundbreaking work in Cholestosome™ technology holds the potential to revolutionize medical treatments. Beyond her research, Dr. McCourt is passionate about mentoring students, creating innovative learning experiences, and shaping the next generation of scientists.



IGNITE YOUR Future in STEM

The STEM Workshop invites high school students entering grades 10-12 to dive into the exciting world of science, technology, engineering, and mathematics. Through hands-on activities, participants will explore cutting-edge scientific concepts, discover how biomedical research impacts our daily lives, and gain experience using modern, real-world equipment. Staying overnight on Niagara University's campus enhances this experience, offering students the chance to fully immerse themselves in a dynamic and enriching environment. Not only will they get to explore the beautiful campus, but they'll also develop a sense of independence and responsibility as they experience life on a college campus.



BEYOND THE Classroom

Hear from a STEM Camp Participant

"While there I learned to prep gel plates and read DNA under UV light. In addition to this unique lab experience, there were several opportunities to learn and make connections as I prepare to pursue a career in marine sciences."

— Emma T.
STEM Camp Participant

As a participant in the BioMedical Research Institute's STEM Camp at Niagara University, Emma stood out for her strong science background and curiosity, earning recognition from program staff for her engagement and aptitude in the lab.

"This was an amazing opportunity for my daughter. I highly recommend anyone interested in science to take a closer look at Niagara University."

— Amy T.
Parent of Emma T.



REGISTRATION and Fee

Our program allows participants to engage with hands-on, fun, and exciting science activities, learn how biomedical research impacts our daily lives while using modern, real-world equipment. Join us for this fun, one-of-a-kind experience!

Only 35 seats available

COST IS \$1,200 AND INCLUDES:

REGISTRATION FEE

ALL MEALS

LODGING (APARTMENT)

SUPPLIES (LAB COAT, GOGGLES, AND LAB NOTEBOOK)

FIELD TRIPS

Registration deadline is May 1, 2026.



Scan for more
information!

If your child's registration is canceled before April 30, a refund will be issued minus a \$150 cancellation fee. Due to advance commitments for staffing, housing, and materials, no refunds will be issued on or after April 30.

Please contact Rob Tober at tober@niagara.edu with any questions.

INSIDE THE STEM Camp Experience

Real Science. Real Experts. Real-World Impact.

Throughout the week, students take part in immersive labs, field experiences, and interactive sessions led by university faculty, researchers, and industry professionals—giving them firsthand exposure to how STEM is applied beyond the classroom.

Students will:

- Explore **forensic science, artificial intelligence, and data analysis** during a hands-on mini-camp. Guided by Niagara University faculty, students will use **Python programming and AI tools** to analyze real-world digital evidence—including images, video, and text—while learning how data-driven technologies are used in modern forensic work.
- Investigate **human anatomy and neuroanatomy** through a comparative brain lab led by **Sandra M. Ocampos, Anatomy & Physiology Laboratory Coordinator at Niagara University**. Students will compare sheep and human brains to better understand structure, function, evolution, and neurological adaptation.
- Discover how **energy engineering and electricity** power our region during a field trip to the **New York Power Authority Niagara Power Vista**, led by **Teresa Martinez, Manager of Community Affairs – Niagara**. Interactive exhibits provide a hands-on look at hydroelectric power and sustainable energy systems.
- Step inside real-world **medical device innovation** at the **Jacobs Institute** in Buffalo. Guided by **Pamela Marcucci, Vice President of Programs**, students will design and test their own clot-clearing devices and explore how engineering and medicine intersect to treat heart attack and stroke.
- Learn how **computer programming and computational analysis** support scientific research during an on-campus workshop led by **Hannah Attard, Assistant Professor of Physics at Daemen University**. This session demonstrates how coding skills transfer across STEM disciplines.
- Explore **astronomy and space science** during an immersive planetarium experience at **SUNY Buffalo State University**, led by **Kevin K. Williams, PhD, Director of the Whitworth Ferguson Planetarium**, featuring a full-dome film, live night-sky tour, and interactive Q&A.
- Engage with **Niagara University faculty, researchers, and visiting experts**, gaining insight into college-level coursework, research pathways, and STEM careers—while collaborating with peers who share similar interests and experiencing life on a college campus.
- Examine **bacteriophages—the viruses that infect and kill bacteria**—during a lab-based lecture led by **Mark A. Gallo, Ph.D., Biology Professor at Niagara University**. Students will explore how these viruses impact the living world, why bacteriophages are gaining attention as potential tools against antibiotic-resistant "superbugs," and analyze key bacteriophage properties through hands-on laboratory investigation.





STEM at Niagara University

Nurturing STEM Students in Growth

Biology

Discoveries in biology are playing a pivotal role in advancing human knowledge in fields like molecular biology, biotechnology, and health sciences.

A degree from NU can take you into diverse fields like biotechnology, health sciences, and molecular biology, or you can continue your studies as a pre-professional with our EARLY Acceptance and 3+4 partnerships.



Our STEM programs are designed to help you expand your critical thinking skills and passion for discovery. You'll feel right at home at our B. Thomas Golisano Center for Integrated Sciences, a state-of-the-art facility where you'll have access to 18 laboratories, specialized equipment, and opportunities to conduct and present research. Our small classes mean you'll get personalized attention from our faculty, opening the door to unique mentorship and undergraduate research opportunities. These hands-on experiences, coupled with our strong industry partnerships, have continuously led to a high job placement rate for our STEM graduates.



Chemistry and Biochemistry

Our chemistry and biochemistry programs have helped place graduates in notable professional health programs, outstanding graduate schools, and employment in important chemical and biotechnical companies, while training students to conduct meaningful scientific research in the field.

Students will complete at least one year of hands-on independent research supervised by a faculty member, providing formal training in the techniques and concepts needed to function as a modern scientist. NU students can also enjoy other formative experiences such as presenting at local, regional, national, and international scientific conferences.

Anatomy & Physiology

At Niagara University, anatomy is taught as part of the Biology and Nursing curricula through Anatomy & Physiology lecture and laboratory courses. Students develop a strong understanding of how structure and function work together in the human body, with emphasis on major organ systems, neuroanatomy, and physiological processes.

Hands-on laboratory experiences play a central role, allowing students to work with real specimens, anatomical models, and lab-based investigations under faculty guidance. This practical approach helps students build the analytical, observational, and problem-solving skills essential for careers in healthcare, biomedical research, and forensic and medical sciences.

Forensic Science & Computing

At Niagara University, forensic science is offered through an interdisciplinary approach that combines chemistry, computer science, and criminal justice. Students can pursue a Forensic Science minor, where they learn how scientific principles and analytical methods are applied to the examination and interpretation of evidence.

Through coursework in computer and information sciences, students may also explore areas such as digital forensics, computer crime, and data analysis, building problem-solving and investigative skills essential to modern forensic work. Together, these programs provide a strong foundation for students interested in forensic laboratories, cybersecurity, research, or advanced study in science and technology fields.



Unlock Your Full Potential with one of NU's STEM Programs