

TAKE YOUR FIRST STEP TOWARD A CAREER IN MEDICINE, LIFE SCIENCE, EARTH SCIENCE, FORENSICS, ENVIRONMENTAL SCIENCE,
BIOINFORMATICS, NUTRITION, EDUCATION AND MORE

Join our exclusive workshop on Metagenomics offered by the Department of Biology and learn about the latest advancements in sequencing DNA from microbes found in diverse environments.

SUMMER 2023: METAGENOMICS – Sequencing of DNA

Metagenomics is the emerging field in biology that studies DNA and gene sequencing of microbes recovered from various environments, such as soil, seawater, and the human body, eliminating the need for costly and time-intensive culturing in the laboratory. Metagenomics enables a better understanding of the evolution, metabolism, and interplay of these microbes.

WORKSHOP BENEFITS

- Hands-on research and laboratory analysis in the exciting emerging field of Metagenomics.
- Learning the basics of operating sophisticated research equipment and tools in CSI's state-of-the-art Molecular Biology Lab, along with industry-standard lab safety procedures.
- Experience in the research process, including developing hypotheses, designing experiments, and analyzing data generated in the laboratory.
- Learning sample gathering techniques from various environmental sites on Staten Island, including Fresh Kills Landfill, the Greenbelt, and Silver Lakes Water Reservoir.
- Building a mentored professional and personal relationship with CSI professors, research team, and fellow students to advance education and career opportunities in a collegiate environment.

EXAMPLE OF WHAT YOU WILL DO

- In this workshop, you'll learn how to extract DNA from environmental samples and use PCR to amplify and analyze specific DNA sequences.
- You'll also use bioinformatics tools to identify the bacteria present in your samples and explore the relationships between microbial communities and their environment. By mastering these techniques, you'll gain a deeper understanding of the biological processes at work in our world and the impact of human activity on the environment.
- You'll also develop valuable skills in research and analysis that can be applied in a range of fields, from medicine to environmental science.

APPLICANT QUALIFICATIONS*

- This workshop is designed for College of Staten Island undergraduate students who are interested in exploring research opportunities.
- High school juniors and seniors, as well as college students from outside CSI, are welcome to apply.
- To be eligible, students must have a minimum unweighted GPA of 85.00 and have completed at least one year of biology.

- While no Advanced Placement (AP) courses in biology or chemistry are required, students should have a genuine interest in the sciences.
- Note: The COVID-19 Vaccination requirement has been discontinued by CUNY as of the conclusion of the Spring 2023 semester.

WORKSHOP DETAILS

If you're interested in exploring biology and want to gain hands-on experience in a laboratory setting, consider applying for our upcoming workshop. To apply, simply fill out a short application form online at <https://forms.office.com/r/Rw2V1DHkXe>

- Application deadline: July 7, 2023
- 16-hour workshop (lecture and lab)
- In-person, July 10-20, 2023, Mondays to Thursdays, 4:00-6:00 pm
- Cost: \$490.00 lab fee for materials
- Participants receive a certificate of completion
- Faculty includes experienced professors in biology
- Limited to 24 seats, first come-first served
- For more information, contact Holly Block holly.block@csi.cuny.edu or Dr. Faiza Peetz faiza.peetz@csi.cuny.edu

With more than 70 science research labs, outstanding faculty, and extensive offerings in the sciences, CSI's students enrolled in various science programs have gone on to top medical, dental, and veterinary schools, as well as careers in physical therapy, physician assistant, speech pathology, environmental science, pharmacy, and science research.