



**ST. JOHN'S
UNIVERSITY**

ST. JOHN'S COLLEGE OF
LIBERAL ARTS AND SCIENCES

Master of Science in Environmental OMICS

ABOUT THE M.S. IN ENVIRONMENTAL OMICS

**Solve Today's Complex Environmental Problems
by Harnessing the Power of Big Data.**

Today's vast and multilayered environmental problems involve vast amounts of data. In the Master of Science (M.S.) program in Environmental OMICS at St. John's University, you develop the ability to analyze big data sets related to the environment. This understanding prepares you for careers helping industries use environmentally sustainable processes, manufacture safer products, and better manage their corporate responsibility.

Environmental OMICS is the branch of environmental science that applies OMICS technologies to address environment-related scientific questions. OMICS refers to the technologies used to explore the functions of the various types of molecules that make up the cells of an organism. It aims at the collective characterization and quantification of pools of biological molecules that translate into the structure, function, and dynamics of an organism or organisms. For example, within the field of environmental OMICS, one might study an organism's genome in relation to dietary and environmental exposures using a combination of field, bench, and computational research approaches.

Through this master's degree program, you become a data scientist with expertise in analyzing environmental and genetic factors, toxicity mechanisms, and modes of action in response to both acute and chronic exposure to environmental stresses and the subsequent impact on ecological systems that include human health and disease. You may pursue either the 30-credit thesis option or the 33-credit nonthesis option and may complete an internship or supervised research to further develop your skills.

WHAT CAN I DO WITH AN M.S. IN ENVIRONMENTAL OMICS?

**Graduates with an M.S. in Environmental OMICS from
St. John's Meet a High Demand for Environmental Scientists
and Information Research Scientists.**

According to the US Bureau of Labor Statistics, employment of environmental scientists and specialists will grow 11 percent from 2016 to 2026, which is faster than the average. The US Bureau of Labor Statistics also indicates that the employment of computer and information research scientists is projected to grow 19 percent from 2016 to 2026 because many companies report difficulties finding these highly skilled researchers.

With a master's degree in Environmental OMICS, you are readily employable and prepared to solve the world's complex environmental problems by harnessing the power of big data.



Master of Science in Environmental OMICS

RESEARCH AND PROFESSIONAL DEVELOPMENT

Our faculty members are actively involved in research that informs their teaching and fuels a lively and diverse exchange of ideas. If you elect a capstone project, thesis, or independent study as part of your master's degree curriculum, you work closely with faculty to create a research portfolio to showcase your abilities for future employers. With the option to complete a semester-long or year-long internship, you gain professional experience and build your résumé before graduation.

To prepare for your career, you also have the advantage of St. John's location in dynamic New York City, as well as the support of our faculty and office of University Career Services, both of which maintain strong ties to employers and internship opportunities.

ASSISTANTSHIPS, SCHOLARSHIPS, AND FINANCIAL AID

The University awards a limited number of graduate assistantships to highly qualified students each year. These positions provide tuition remission and a stipend and involve assisting faculty with their research.

For more information about assistantships, as well as other types of financial aid and scholarship awards, please visit our website.

PROGRAM INFORMATION AND APPLICATIONS

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ADMISSION INFORMATION

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