

The Buffalo Niagara Medical Campus continues to grow, including 130 Life Science companies, 28 hospitals, and a new genomic center. There is an increasing demand for highly qualified employees with multiple credentials, degrees, and skills to enter into various careers relating to research, bioinformatics and the life sciences.

Definitions to get you started on the pathway...

Research: The careful study of a subject through experimentation that helps in the discovery and interpretation of new facts.

Laboratory: A room or building with special equipment for conducting scientific experiments and tests.

Bioinformatics: The collection and analysis of biological information using computers.

Life Sciences: An area of science that deals with living things and life processes.

The New Education Bargain with Students and Parents

An equal and high-quality education is every child's civil right; and, as educators, we must deliver on this essential democratic principle. The New Education Bargain is simple: The District will guarantee pathways to opportunity that will lead to achievement and success in exchange for hard work, commitment, and collaboration of our students and parents.

IT IS THE PARENT'S RESPONSIBILITY TO:

- Place a high premium on education
- Make sure your child goes to school and to all classes every day
- Make sure your child does his in-school work to the best of his ability and puts in additional study time (up to two hours each day) outside of school hours
- Make sure you and your child show respect for teachers and for staff

Initiatives include:

- Reimagine Early Elementary Education
- Strong Community Schools
- New Innovative High Schools
- Extended Learning Opportunities for All Our Students
- Services for Our Readiest Children and Families
- New Relationship with Our Teachers



College Scholarships and Grants

Research Laboratory Program for Bioinformatics & Life Sciences

Dr. Kriner Cash, Superintendent
 Angela Cullen, Principal
 Kira Mioducki, Program Coordinator
kmioducki@buffaloschools.org



BUFFALO PUBLIC SCHOOLS

"Putting children & families first to ensure high academic achievement for all."

RECOLTURE • REFOCUS • RESET

Research Laboratory Program for Bioinformatics & Life Sciences



PS#366 at Lewis J. Bennett High School
2885 Main Street, Buffalo NY 14214

A College Preparatory Pathway

Advanced Science Coursework

Technology-based Research

Project-based Learning

Students will earn a Regents or Advanced Regents Diploma

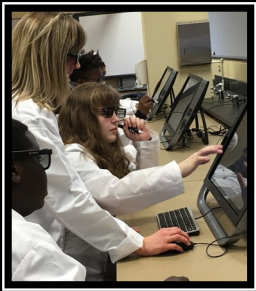
College and Career possibilities after attending Research Laboratory Program for Bioinformatics & Life Sciences:

- Lab Career Fields
 - Medical Laboratory Technician
 - Histologist
 - Bioinformatician
- Biomedical Engineering Career Fields
 - Drug Therapy Researcher
 - Vaccine Development Researcher
- Business Career Fields
 - Patent Attorney
 - Medical Lab Sales Representative
 - Lab Accountant
 - Lab Manager
- Civic Career Fields
 - Genetic Counselor
 - Bio Ethics Researcher
- Environmental Career Fields
 - Alternative Energy & Waste Clean Up Researcher
 - Agricultural Studies Researcher
- Agriculture Researcher
 - Crop Resistant Insects
 - Nutritional Quality in Soils
- Comparative Animal Studies Researcher

AN INNOVATIVE PATHWAY FOR STUDENTS AND PARENTS

Our VISION:

The program will offer an interactive and engaging environment based on project-based learning and collaboration with the medical community. This college preparatory program will prepare our graduates with the knowledge, skills and experiences to enroll in post-secondary science courses of study leading to high demand careers in a global economy.



Why should students choose the Research Laboratory Program for Bioinformatics & Life Sciences?

- The program is designed for students who are interested in careers related to research and the growing Buffalo Niagara Medical Campus
- We have small cohorts of 50 students per grade level
- We are looking for highly motivated students who enjoy science and math
- The high school program will allow you to experience science research in the classroom, in the Buffalo medical community and globally through technology
- We have a state of the art 3-D computers in our Z-Space lab and 1:1 laptop devices for all students



Science Courses and Experiences:

Freshmen Year:

Regents Biology Course, Interactive Biology Laboratory Journal, Introduction to Scientific Research I, Scientific Career Exploration.

Sophomore Year:

Regents Chemistry Course, Interactive Chemistry Laboratory Journal, Methods of Scientific Research, Chemistry Research and Experimentation Collaborative Inquiry Project, Portfolio and Presentation.

Junior Year:

Anatomy and Physiology Course, Interactive Laboratory Journal, Media Research Skills, Evolution and Genetics Collaborative Inquiry Project and Presentation. This project can be used for college entrance portfolios.

Senior Year:

Physics or Advanced Placement Course and Research Opportunity. Students will be responsible for applying their scientific knowledge of the scientific method processes and develop, in collaboration with teachers, mentors, and peers, a final inquiry research portfolio project of their own design. Students will defend their work and findings before a panel of community partners and industry professionals. This project can be used for college entrance portfolios.

Partners

University partners will support our students in this unique learning environment. Under-graduate and graduate students will assist in the labs and classrooms, serving as role models and mentors. Faculty and researchers will help students access networking and medical industry opportunities available on the Buffalo Niagara Medical Campus. Our university partnerships:

- University at Buffalo (UB)
- UB's New York State Center of Excellence in Bioinformatics and Life Sciences
- UB's Interdisciplinary Science and Engineering Partnership



University at Buffalo
The State University of New York

Industry partners will support the development of curriculum and give students the opportunity to use state of the art technology while actively engaging in real world scientific research. Through project based learning in both the classroom and laboratory settings, students will develop their leadership and interpersonal skills through collaborative mentorships and joint research opportunities. Partners will open facilities to students for field visits, distance conference learning, and equipment use for students.