



The College at
BROCKPORT
STATE UNIVERSITY OF NEW YORK

PROFESSIONAL SCIENCE MASTER'S PROGRAM

A Specialized Track in the Master of Science in Biological Sciences Program

The Professional Science Master's program (PSM) is an innovative, non-thesis master's program designed for those interested in working in biotechnology—in particular in positions that interface between research scientists and management. The PSM is also an ideal program for individuals currently working in the biotech, and the biomedical industries who are seeking to advance their careers.

As an interdisciplinary degree program, the PSM provides students with the laboratory skills necessary for a career in biotechnology as well as the marketing and management skills necessary for advancement in the biotech and the biomedical industries. What sets this program apart from traditional biological sciences master's programs is the inclusion of courses in management and business (Plus Courses) and an internship in business, government or non-profit organizations.

Plus Courses and Internships

Plus Courses feature business and management topics combined with analytical concepts. This unique combination prepares graduates of the program to successfully interface with both research scientists and upper management in scientific business and organizational settings.

The program internship is taken in the second year of study, after the student has completed all Plus Courses. Internships provide opportunities for students to apply knowledge gained in Plus Courses to real-life issues in real-world settings.

Career Opportunities in Biotechnology and Biomedical Industries

- Research science positions in laboratories applying biotechnology to resolve problems in medicine, industry, and agriculture
- Regulation of drug approval and other biotechnology applications
- Management positions in biomedical organizations
- Positions at companies investing in biotechnology

Entrance Requirements

- Candidates for the PSM Program must have an undergraduate minimum GPA of 3.0 on a 4.0 scale
- A course in Statistics
- Two letters of recommendation
- GRE General Test
- Statement of Objectives
- Writing sample of at least three pages illustrating scientific writing skills



PSM Program Requirements

Requirements for successfully completing the PSM include completion of a total of 34 to 39 credits as follows:

- No less than 15 credits of biological sciences courses at the 600 level or above (may include a maximum of six credits for independent study (BIO 699); and
- At least one credit of graduate seminar
- Six credits of BIO 702 (Internship)
- Included in the total of 34 to 39 credits for the program are the nine credits of Plus Courses:

PSI 601	Management and Communication for Math and Science Professionals
PSI 602	Accounting and Finance for Math and Science Professionals
PSI 603	Applied Quantitative Analysis for Math and Science Professionals

Sample Elective Courses in Cell and Molecular Biology

BIO 514	Introduction to Immunology
BIO 515	Molecular Biology
BIO 526	Recombinant DNA
BIO 570	Biochemistry Lab
BIO 575	Cancer Biology
BIO 580	Genomes and Proteomes in Biomedicine
BIO 595	Memory, Self, and Brain
BIO 623	DNA Cloning Laboratory
BIO 635	Cell Culture and Biotechniques
BIO 655	Principles of Drug Discovery



Biological Sciences Faculty and Areas of Expertise

Tom Bonner, PhD

Cellular ultrastructure

Laurie Cook, PhD

Regulation of G protein-coupled receptors in mammalian cells

Huey K. Hing, PhD

Developmental genetics of olfaction in *Drosophila*

Craig Lending, PhD

Cellular ultrastructure

Michel Pelletier

Microbiology and infectious disease

Adam Rich, PhD

Gastrointestinal and cardiovascular physiology in zebrafish

Rey Sia, PhD

Molecular genetics of mitochondrial function in yeast

Stuart Tsubota, PhD

Developmental genetics in *Drosophila*



For program information:

Stuart Tsubota, PhD
Department of Biological Sciences
The College at Brockport
350 New Campus Drive
Brockport, New York 14420
(585) 395-5759
stsubota@brockport.edu

For admission information:

Office of Graduate Studies
The College at Brockport
350 New Campus Drive
Brockport, New York 14420
(585) 395-5465
gradadmit@brockport.edu
www.brockport.edu/graduate