

**LEHMAN COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK**

DEPARTMENT OF BIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. **Type of change:** New Course

Department(s)	Biological Sciences
Career	☐ Undergraduate ☒ Graduate
Academic Level	☒ Regular ☐ Compensatory ☐ Developmental ☐ Remedial
Subject Area	Biology
Course Prefix & Number	BIO 771
Course Title	Research In Molecular Microbiology
Description	A project-based lab course that provides graduate students with practical research skills for their thesis and future science careers in academia or industry.
Pre/ Co Requisites	Departmental Permission
Credits	2
Hours	4
Liberal Arts	☐ Yes ☒ No
Course Attribute (e.g. Writing Intensive, WAC, etc)	

General Education Component	☒ Not Applicable
	☐ Required
	☐ English Composition
	☐ Mathematics
	☐ Science
	☐ Flexible
	☐ World Cultures
	☐ US Experience in its Diversity
	☐ Creative Expression
	☐ Individual and Society
☐ Scientific World	

3. **Rationale:**

Although many research skills are taught individually in various graduate biology courses as laboratory techniques, students often display difficulty integrating them. This project-based laboratory course is designed to prepare graduate students for their research-based thesis projects and future careers in academia or industry by training them to apply their knowledge and skills from other courses to complete projects similar to those performed in a research environment.

4. **Learning Outcomes (By the end of the course students will be expected to):**

- Analyze a biological phenomenon to determine the biological cause.
- Conduct a background search and formulate a testable hypothesis.
- Design experimental approaches to test the hypothesis.
- Analyze and present data to support the hypothesis.
- Understand and follow common research laboratory protocols and chemical safety rules.
- Master basic experimental approaches through repeated practices.
- Conduct small biological research projects independently.
- Create a presentation to communicate study results.
- Write a research paper to communicate experimental results.

5. **Date of Departmental Approval:** 10/11/2023