



Syllabus

BIO 283 - Electrophoresis

General Information

Date November 25th, 2019

Department Science and Technology

Course Prefix BIO

Course Number 283

Course Title Electrophoresis

Course Information

Catalog Description A laboratory module introducing the student to polyacrylamide and agarose gel electrophoresis. Seven weekly laboratory exercises (3 hours each).

Credit Hours 1

Lecture Contact Hours 0

Lab Contact Hours 2

Other Contact Hours 0

Grading Scheme Letter

Prerequisites

BIO 121 or BIO 171

Co-requisites

None

First Year Experience/Capstone Designation

This course DOES NOT satisfy the outcomes applicable for status as a FYE or Capstone.

SUNY General Education

This course is designated as satisfying a requirement in the following SUNY Gen Ed category

None

FLCC Values

Institutional Learning Outcomes Addressed by the Course

Vitality, Inquiry, Perseverance, and Interconnectedness

Course Learning Outcomes

Course Learning Outcomes

1. Differentiate between the use of polyacrylamide and agarose gel electrophoresis techniques in the laboratory.
2. Design an experiment based on a testable hypothesis.
3. Communicate experimental results using standard scientific journal formatting

Outline of Topics Covered

Polyacrylamide Gel Electrophoresis Principles
Polyacrylamide Gel Electrophoresis Equipment and Set Up
Pipetting and micropipetting
Gel Staining & Photography
Standard Curves
Western Blotting
Agarose Gel Electrophoresis Principles
Agarose Gel Electrophoresis Equipment and Set Up
Restriction Enzymes
Southern Blotting
Journal Manuscript Drafting, Submission and Peer Review