

# **BSCI171: Principles of Molecular & Cellular Biology Laboratory**

## **Course Description:**

The laboratory component of BSCI170, Principles of Molecular and Cellular Biology, is designed to complement the lecture materials and engage you in hands-on experiences with fundamental tools of experimental science. This course will focus on molecular and cell biological processes.

## **Prerequisites:**

Must have math eligibility of MATH120 or higher  
Prerequisite or Co-requisite: BSCI170

## **Course Credit: 1**

**Recommended:** For Science majors.

## **Textbook:**

*Principles of Molecular and Cellular Biology Lab Manual* by D. Kirschtel, ed. **NOTE:** Students must have a new and current Lab Manual.

## **Major Topics Covered in BSCI171 Include the Following:**

1. Solutions and Measurements
2. Microscopy and Cell Structure
3. Separation of Macromolecules
4. Introduction to the Scientific Method and Scientific Communication
5. Investigation 1: Design: Spectrophotometric Assay
6. Investigation 1: Data Generation: Spectrophotometric Assay
7. Investigation 1: An Alternative Essay
8. Investigation 2: Research Design
9. Investigation 2: Data Generation
10. Investigation 2: Data Analysis and Interpretation
11. Investigation 2: Poster Presentation