

Module description

-Module title: Experiments in Biophysical Biochemistry.

-Module code: BCH 333

-Year: 1447 H (2025) – First semester.

-Module objectives:

This course is intended as an introduction to physical methods in biochemistry and aims to provide an understanding of the techniques of spectroscopy, electrophoresis, chromatography and other basic and common methods for purification and characterization of biomolecules. The other goal of this course is to prepare students to apply these methods themselves to their own research projects.

-Mark distribution:

Total mark is 100:

- 10 marks for quizzes.
- 20 marks for lab report.
- 7 marks for lab performance and activity.
- 3 marks for weekly assessment.
- 20 marks for midterm.
- 40 marks for final exam.

-Module experiments:

	Experiment title	Date	Quiz
1	Scanning Spectrophotometry and Spectrophotometric Determination of Concentration.	4 Sep	
2	Protein Extraction and Fractionation by Salt and Dialysis.	11 Sep	Lab 1
3	Spectrophotometric Methods for Determination of Proteins Concentration.	18 Sep	
Midterm Exam: 2 Oct			
4	Paper and Thin Layer Chromatography (TLC).	25 Sep	Lab 2&3
5	Gel Filtration Chromatography.	9 Oct	
6	Ion Exchange Chromatography.	16 Oct	
7	Agarose Gel Electrophoresis.	23 Oct	Lab 4-6
8	Sodium Dodecyl Sulfate -Polyacrylamide Gel Electrophoresis (SDS-PAGE).	30 Oct	
9	Revision	6 Nov	Lab 7&8
Final Exam: 11 Dec			