

Module description

-Module title: Experiments in Biophysical Biochemistry.

-Module code: BCH 333

-Year: 1445 H (2024) – second 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 weekly quizzes.
- 20 marks for weekly lab report.
- 3 marks for homework.
- 5 marks for lab performance and activity.
- 2 marks for weekly assessment.
- 20 marks for midterm.
- 40 marks for final exam.

-Module experiments:

	Experiment title	Date
1	Scanning Spectrophotometry and Spectrophotometric Determination of Concentration.	29 Jan
2	Protein Extraction and Fractionation by Salt and Dialysis.	5 Feb
3	Spectrophotometric Methods for Determination of Proteins Concentration.	12 Feb
Midterm Exam: 19 Feb		
4	Paper and Thin Layer Chromatography (TLC).	4 Mar
5	Gel Filtration Chromatography.	11/18 Mrs
6	Ion Exchange Chromatography.	25 Mar
7	Agarose Gel Electrophoresis.	15/22 Apr
8	Sodium Dodecyl Sulfate -Polyacrylamide Gel Electrophoresis (SDS-PAGE).	29 Apr
9	Revision + Lab 8 quiz.	6 May
Final Exam: 9 May		

-Homework submission deadline: 6 May