

Module Description

Module title: Biochemical Calculations – practical part.

Module code: BCH 312

Year: 1447 H (2025) – First semester.

Module objective:

Understanding the most common calculations in biochemistry, including ways of expressing concentration, pH calculation, ionization of weak acid, buffers and some application of spectrophotometers.

Mark distribution:

Total mark is 25:

- 5 marks for quizzes.
- 4 marks for lab report/ lab exercise sheet.
- 1 mark for lab performance
- 2 marks for homework
- 13 marks for final exam.

Module experiments:

No.	Experiment Title	Date
1	Identification of the common laboratory glassware, pipettes and Equipment	2 Sep
2	Preparation of Solutions	9 Sep
3	Dilution of Solutions	16 Sep
4	Preparation of Different Buffer Solutions	30 Sep
5	Preparation of Buffer Solutions by Different Laboratory Ways	7 Oct
6	Buffer Capacity	14 Oct
7	Titration of a weak acid with strong base	21 Oct
8	Titration curve of amino acids	28 Oct
9	Beer's- Lambert Law and Standard Curves	4 Nov
Final exam December 9th 2025		

Reference:

Segel, I. H. (1968, January 1). Biochemical Calculations. John Wiley & Sons.