

## Module Description

**-Module title:** Biochemical Calculations – practical part.

**-Module code:** BCH 312

**-Year:** 1445 H (2024) – Second semester.

**-Module objective:**

Is to understand the most common calculation in biochemistry, including ways of expressing concentration, pH calculation, ionisation of weak acid, buffers and some applications of spectrophotometers.

**-Mark distribution:**

The total mark is 25:

- 5 marks for Quizzes.
- 4 marks for the Lab report.
- 1 mark for Lab performance
- 2 marks for HomeWorks
- 13 marks for the final exam.

**-Module experiments:**

NO.	Experiment Title	Date	HW
1	Identification of the common laboratory glassware, pipettes and Equipment	29 Jan	√
2	Preparation of Solutions	5 Feb	√
3	Dilution of Solutions	12 Feb	√
4	Preparation of Different Buffer Solutions	19 Feb	
5	Preparation of Buffer Solutions by Different Laboratory Ways	4 Mar	√
6	Buffer Capacity	11 Mar	
7	Titration of a weak acid with strong base (theoretical)	18 Mar	
7'	Titration of a weak acid with strong base (practical)	25 Mar	
8	Titration curve of amino acids	15 Apr	
9	Beer's- Lambert Law and Standard Curves	22 Apr	√
	Lab#9 Quiz + Buffer Calculation Revision	29 Apr	
<b>May 7<sup>th</sup>, 2024 (1 – 3)</b>			

**-Reference:**

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

<https://www.dropbox.com/s/j3vi4k0aj9xkzko/%40biochemical%20calculation.pdf?dl=0>