

## Module description

**Module title:** Protein biochemistry– practical part

**Module code:** BCH 303

**Year:** 1444H (2022-23) – Second semester.

**Module objective:**

- Practical knowledge in the protein biochemistry field
- Understand the principles behind basic experiments of protein biochemistry lab
- Dealing with proteins extracted from different sources

**Mark distribution:**

Total mark is 30:

- 5 marks for weekly quizzes (*exams are written based on the information discussed on the previous lecture, the quiz includes objective and short answer questions*)
- 6 marks for lab reports (*written according to the guidelines mentioned in the 1<sup>st</sup> lecture*)
- 3 marks for Homework (*related to the lecture topic and are attached with the report*)
- 2 marks for performance (*students are evaluated based on lab guidelines mentioned in the 1<sup>st</sup> lecture*)
- 14 marks for final exam:
  - ▪ 10 marks for practical part (*includes experimental work and subjective questions*)
  - 4 marks for theoretical part (*includes objective questions*)

**Module experiments:**

Lab No.	Title	Date
1	General Laboratory Guidelines Qualitative tests of amino acids.	08/12/2022
2	Quantitative amino acids estimation by ninhydrin method	15/12/2022
3	Effect of various factors on protein solubility and structure	22/12/2022
4	Protein extraction from animal and plant source	29/12/2022
5	Protein fractionation by ammonium sulphate and dialysis	05/01/2023

6	Detection and quantitative estimation of proteins by different methods	12/01/2023
7	quantitative estimation of proteins by Bradford's method	19/01/2023
8	Effect of various factors on polyphenol oxidase activity	26/01/2023

***Final exam 7/2/2023***

**Online resources**

<https://ttk.elte.hu/dstore/document/871/book.pdf>

<https://skyfox.co/wp-content/uploads/2020/12/Practical-Manual-of-Biochemistry.pdf>

<https://komar.edu.iq/wp-content/uploads/2018/09/Lab-manual-Biochemistry.pdf>

[https://rose-hulman.edu/~brandt/publications/422\\_Manual\\_3rd\\_Ed.pdf](https://rose-hulman.edu/~brandt/publications/422_Manual_3rd_Ed.pdf)