

Module Description

-Module title: Biotechnology & Genetic Engineering – practical part.

-Module code: BCH 462

-Year: 1441H (2020) – Second semester.

-Module objective:

To introduce the modern and emerging approaches in Molecular Biotechnology and its applications in Biochemistry. The course is divided into eight labs, each lab focus on the theoretical basis of a technique, the actual working method, hands-on experience, pitfall and strengths of this technique.

-Mark distribution:

Total mark is 30:

- 5 marks for quizzes (weekly)
- 6 marks for reports (weekly)
- 2 marks for Homework / performance
- 3 marks for question sheet
- 14 marks for final exam

-Module experiments:

NO.	Experiment Title	Date
0	Introduction General Lab Safety & Sterile technique for Bacterial cultures.	8 Sep
1	Plasmid Isolation and Purification	8 & 15 Sep
2	Competent Cells Formation and Transformation of Competent Cells with recombinant plasmid DNA	22 Sep
3	Extraction and Determination of Bacterial Proteins	29 Sep
4	Western Blot - I	6 Oct
5	Enzyme-Linked Immunosorbent Assay (ELISA)	13 Oct
6	Kirby-Bauer test	20 Oct
7	RFLP	27 Oct
8	RT-qPCR	3 Nov
Final Exam		1 Dec 2020