

Module Description

Module title: Molecular Biology– practical part.

Module code: BCH 361

Year: 1446 H (2024) – First semester.

Module objectives:

- Practical knowledge in the molecular biology field.
- Understand the principles behind basics molecular biology techniques.
- Working in basic experiments in the molecular biology lab.

Mark distribution:

Total mark is 30:

- 5 marks for quizzes.
- 6 marks for lab report.
- 3 marks for homework.
- 3 marks for lab performance.
- 13 marks for final exam

-Module experiments:

	Experiment title	Date	Quiz	Report
0	Introduction to Molecular Biology.	27 Aug	-	-
1	Preparation of Genomic DNA from Rat Blood.	3 Sep	Quiz 1	Report 1
2	Extraction of RNA from Rat Blood (Kit).	10 Sep		Report 2
3	Characterization of DNA by Spectrophotometric Assay and Melting Temperature (tm).	17 Sep	Quiz 2	Report 3
4	Agarose Gel Electrophoresis (AGE).	24 Sep		
5	cDNA Synthesis.	1 Oct	Quiz 3	-
6	Polymerase Chain Reaction (PCR) and Primer Design.	8 Oct	Quiz 4	Report 4
7&8	PCR - Optimization of Annealing Temperature. PCR Troubleshooting.	15 Oct		
9	Sanger Sequencing.	22 Oct	Quiz 5	-
10	Revision + Lab 8 quiz.	29 Oct		-
Final Exam: 19 Nov				