

Module Description

Module title: Molecular Biology– practical part.

Module code: BCH 361

Year: 1447 H (2025) – 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.
- 5 marks for lab reports.
- 5 marks for lab performance.
- 15 marks for final exam

-Module experiments:

	Experiment title	Date	Report	
0	Introduction to Molecular Biology.	24 Aug	-	Quiz 1 (Lab 1-4) 12 Oct
1	Preparation of Genomic DNA from Rat Blood.	31 Aug-7 Sep	Report 1 Submission on 5 Oct	
2	Extraction of RNA from Rat Blood (Kit).	14 Sep		
3	Characterization of DNA by Spectrophotometric Assay and Melting Temperature (tm).	21 Sep		
4	Agarose Gel Electrophoresis (AGE).	28 Sep		
5	Polymerase Chain Reaction (PCR) and Primer Design.	5 Oct	Report 2 Submission on 26 Oct	Quiz 2 (Lab 5-7)
6&7	PCR - Optimization of Annealing Temperature. PCR Troubleshooting.	12 Oct		19 Oct
8	cDNA Synthesis.	19 Oct		-
9	Sanger Sequencing.	26 Oct	-	4 Nov
10	Revision		-	
		2 Nov	-	
Final Exam: 19 Nov				