BIOLOGY UNIT
KOLEJ MATRIKULASI KELANTAN
KEMENTERIAN PENDIDIKAN MALAYSIA
RANCANGAN INSTRUKSIONAL SEMESTER (RIS)
BIOLOGY / SB015
SEMESTER 1 2026 / 2027

KEMENTERIAN PENDIDIKAN

WEEK & DATE	TOPIC	LECTURE	CONTACT HOURS	TUTOR	CONTACT HOURS		PRACTICAL	CONTACT HOURS	NOTES
WEEK 1 (14/6/26-18/6/26)	**1.0 MOLECULES OF LIFE** 1.1 Water 1.2 Carbohydrates	1.1 1.2 1.3 1.4	1	1.1 1.2 1.3 1.4	3	1 1	Pre Exp 1 Pre Exp 2		**CUTI AWAL MUHARAM-17/6 (WED)**
WEEK 2 (21/6/26-25/6/26)	1.3 Lipids 1.4 Proteins 1.5 DNA and RNA Molecules	1.4 (cont.) 1.5	1	1.4 (cont.) 1.5 2.1 2.2	3		Experiment 1 : Basic Technique of Microscopy	2	
WEEK 3 (28/6/26-2/7/26)	**2.0 CELL STRUCTURES AND FUNCTIONS** 2.1 Prokaryotic and Eukaryotic Cells 2.2 Structures and Functions: Cell Membrane and Organelles	2.1 2.2	1	2.2(cont.) 2.3	3		Experiment 2: Plant Tissue	2	
WEEK 4 (5/7/26-9/7/26)	2.3 Cells are grouped into Tissues 2.4 Cell Transport	2.2 (cont.) 2.3 2.4	1	2.4 3.1 3.2	3	1 1	Post Exp 1 Post Exp 2		**ASSIGNMENT BRIEFING CHAPTER 1&2**
WEEK 5 (12/7/26-16/7/26)	**3.0 CELL DIVISION** 3.1 The Cell Cycle 3.2 Mitosis 3.3 Meiosis	3.1 3.3	1	3.2 (cont.) 3.3 4.1	3	1 1	Pre Exp 5 Pre Exp 6		
WEEK 6 (19/7/26-23/7/26)	**4.0 GENETIC INHERITANCE** 4.1 Mendelian Genetics: Monohybrid and Dihybrid 4.2 Deviations from the Mendelian Inheritance	4.1	1	4.1 (cont.) 4.2	3		Experiment 5: Inheritance	2	***UPS 1 (C1, C2 & C3)**
WEEK 7 (26/7/26-30/7/26)	4.3 Genetic Mapping	4.2 4.3	1	4.2 (cont.) 4.3	3		Experiment 6: Isolating DNA	2	
WEEK 8 (2/8/26-6/8/26)	**5.0 POPULATION GENETICS** 5.1 Gene Pool Concept 5.2 Hardy-Weinberg Law	5.1 5.2	1	5.2	3	1 1	Post Exp 5 Post Exp 6		**ASSIGNMENT DEADLINE 6/8/2026**
WEEK 9 (9/8/26-13/8/26)	**6.0 EXPRESSION OF BIOLOGICAL INFORMATION** 6.1 DNA and Genetic Information 6.2 DNA Replication	6.1 6.2	1	6.2 6.3	3		***PRACTICAL TEST**		
WEEK 10 (16/8/26-20/8/26)	6.3 Protein Synthesis: Transcription and Translation 6.4 Gene Regulation and Expression - *lac* operon	6.3 6.4	1	6.3 (cont.) 6.4	3		***PRACTICAL TEST**		***UPS 2 (C4, C5 & C6)**
MID SEM BREAK (21/8-29/8/26) ***CUTI MAULIDUR RASUL (25/8/2026)**									
WEEK 11 (30/8/26-3/9/26)	**7.0 MUTATION** 7.1 Overview The Classification and Types of Mutation 7.2 Gene Mutation	7.1 7.2 7.3	1	6.4 (cont.) 7.2	3		***PRACTICAL TEST**		**CUTI HARI MERDEKA-31/8 (MON)**
WEEK 12 (6/9/26-10/9/26)	7.3 Chromosomal Mutation	7.3 (cont.)	1	7.2 (cont.) 7.3	3	1 1	Pre Exp 3 Pre Exp 4		
WEEK 13 (13/9/26-17/9/26)	**8.0 RECOMBINANT DNA TECHNOLOGY** 8.1 Recombinant DNA Technology	8.1	1	7.3 (cont.) 8.1	3		Experiment 3: Transport Across Membrane	2	**CUTI HARI MALAYSIA -16/9 (WED)**
WEEK 14 (20/9/26-24/9/26)	8.2 Methods in Gene Cloning 8.3 Application of Recombinant DNA Technology	8.1 (cont.) 8.2 8.3	1	8.1 (cont.) 8.2	3		Experiment 4: Cell Division - Mitosis	2	***UPS 3 (C7 & C8)**
WEEK 15 (27/9/26-1/10/26)		8.3 (cont.)	1	8.2 (cont.) 8.3	3	1 1	Post Exp 3 Post Exp 4		**CUTI HARI KEPUTERAAN SULTAN MUHAMMAD V 29 & 30/9/26 (TUE & WED)**
WEEK 16 (4/10/26-8/10/26)	**9.0 REPRODUCTION AND DEVELOPMENT** 9.1 Sexual Reproduction in Flowering Plants 9.2 Human Reproductive System	9.1	1	9.1 9.2	3		REVISION		
WEEK 17 (11/10/26-15/10/26)	9.3 Fertilization and Foetal Development 9.4 Roles of Hormones During Pregnancy and Parturition 9.5 Growth Patterns In Human and Plants	9.2	1	9.2 (cont.)	3		REVISION		
WEEK 18 (18/10/26-22/10/26)		9.3 9.5	1	9.3 9.4 9.5	3		REVISION		
STUDY WEEK (23/10-28/10/26)									
MATRICULATION PROGRAMME SEMESTER EXAMINATION I & III (PSPM I & III) (29/10/26 - 5/11/26)									

* *Subject to change*

Sesi bermula pada 14/6/2026

Prepared by :

7/6/26

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