

Republic of Iraq
The Ministry of Higher
Education
& Scientific Research



University: Diyala
College: Agriculture
Department: Animal Production
Stage: second stage
Name: Bashar Adham Ahmed
Academic Status: Professor
Qualification: Doctor
Place of work: college of Agriculture

Flow up of implementation celli pass play

Course Instructor	Bashar adham ahmed				
E_mail	basharadham@uodiyala.edu.iq				
Title	Principle of Genetics				
Course Coordinator	Second Course \ 2024-2025				
Course Objective	Teaching and training students on the previous theories of heridity, and the rise of modern science of genetics in 1900 by adopting of mendel principles in genetics and the extentions lows after mendel.				
Course Description	History of genetics, Mendel principles in heridity, linkage, the structure of genetic material, genetics related with sex chromosomes, maternal inheritance, DNA replication and gene expression.				
Textbook	Hassan, K. H. 2017. Principles of Genetics. Univ. of Diyala Press.				
References	Snustad, D.P. and Simmons, M.J., 2015. <i>Principles of genetics</i> . John Wiley & Sons. Muir , W.M. and S.E., Aggrey (2003) <i>Poultry Genetics , Breeding and Biotechnology</i> . Interactive concepts in Biology . Tenth Edition Version (4.0) CD .				
Course Assessment	Term Tests	Laboratory	Quizzes	Project	Final Exam
	%20	%15	%5	----	%60
General Notes					

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بسم الله الرحمن الرحيم



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week	Date	Topics Covered	Practical Part
1		Cytogenetics and Cytology	General introduction to the cell and chromosomes
2		Genetics and Mendel's First Law	Mitosis
3		Mendel's Second Law	Meiosis
4		Non-Mendelian Inheritance - Types of Dominance	Life cycle of Drosophila, preparation of food, techniques in insect handling and commercial work, examination of insects for wild type and mutants
5		Genetic Interference - Superiority	Mendel's first law
6		Duplicate Genes and Their Types	Mendel's second law
7		Lethal Genes	Probability and chi-square (statistical examination of experiments)
8		Quantitative Inheritance	Modifications to Mendel's law
9		Multiple Alleles	Multiple alleles
10		Sex Inheritance	Gene overlap and lethal factors
11		Linkage and Crossing Over	Sex linkage
12		Nucleic Acid Structure	Linkage and crossing over, mapping distances and cytoplasmic inheritance
13		Nitrogenous Bases	Genetic immunity
14		Mutation	Genetic duplication
15		Genetic Engineering	Chromosome induction and study of chromosomal variations

sh/A

Instructor Signature:
Phd. Pro. Bashar adham ahmed
15/1/2025

Dean Signature:
Prof. Dr. Raed Ibrahim Khalil
15/1/2025