

Ministry of Higher Education and Scientific research



Department of Psychology

College of Arts

Salahaddin University

Subject: Genetics

Course Book – (Year: 2, semester: 1)

**Lecturer's name: Khder Niazi Nooraldeen -
Ph.D.**

Academic Year: 2023/2024

Course Book

1. Course name	Genetics
2. Lecturer in charge	Khder Niazi Nooraldeen
3. Department/ College	Psychology Dept/ College of Arts
4. Contact	e-mail: Khder.Nooraldeen@su.edu.krd
5. Time (in hours) per week	Theoretical: 2 hrs
6. Office hours	Monday and Thursday, 10-11:00 a.m., and by appointment
7. Course code	
8. Teacher's academic profile	My philosophy in education is to improve myself by learning new skills and technologies in education from the experience of other academics throughout the world. This philosophy depends on transmitting the information of the other academics directly to us, or modifying them to be more suitable with the conditions of our university. Certainly this will not happen if there is no close look at the other universities behind the borders. Using new technologies in education is very important for the students because they have to be familiar with these technologies after graduation for the market of business if they will work in the private sector or to use these technologies in their work as future psychologists.
9. Keywords	genetics, psychology
10. Course overview:	In this course we will cover the basics of hereditary both in a lecture setting as well as a laboratory setting. We will concentrate on three areas of genetics: Mendelian (or transmission) genetics, molecular genetics, and population/evolutionary genetics. While easily divided into these units, they are by no means independent, each being tied to the others. Major concepts to be covered will include how the genetic material: 1) replicates and is passed on, 2) contains information that results in a phenotype, and 3) can change. Recent discoveries as well as historical concepts will be discussed.
11. Course objective:	The goal of this course is to provide students with an overview of genetics from the work of Mendel to the current understanding of the gene at the molecular level. Lectures will introduce basic concepts and terminology, as well as emphasize the importance of experimental approaches used to understand genetics. We will use problems to illustrate concepts and show practical application of genetics to current situations. Additional use of textbook problems and graded problem sets will help students develop critical thinking and problem solving skills.
12. Student's obligation	The student is responsible for all the materials which are lectured in this course. The student has to attend all the lectures. The student has to complete all the exams of this course. Absence from the exams without proper documentation will not be acceptable. Cheating or any attempt of cheating will not be tolerated.
13. Forms of teaching	

The lectures are going to be taught in lecturing hall with the help of data show on the board. The lecture includes written material and photos of the organs. The lectures are explained in power point form. The blackboard may be used sometimes. The students can receive the lectures from the photocopy shop at the college of Arts.

14. Assessment scheme

In biology there will be 2 midterm exams and one final exam covering the entire lectures of the course.

Evaluation of biology

1st midterm exam	40%
Final exam	60%
Total	100%

15. Student learning outcome:

At the completion of this course students should be able to (see end of the syllabus for expanded version and tips on how to reach these learning outcomes):

- Explain the nature of inheritance, the genetic material and how it results in phenotype, variation in genetics, and relationship between these concepts.
- Use the concepts of Classical, Molecular and Population genetics to analyze data and solve novel genetics problems.
- Design and carryout genetics experiments, and participate in the generation and evaluation of genetic knowledge.
- Interact with others regarding the impact and use of genetics and genetic information on society.
- Use knowledge of genetics concepts to develop informed questions about a new genetic related topic.
- Connect genetics with concepts/knowledge from other courses.

16. Course Reading List and References:

- Key references: Genetics: A Conceptual Approach, Third Edition (W.H. Freeman) by Benjamin Pierce

17. The Topics:

Lecturer's name

First term

Week 1	Course Introduction
Week 2	بۆماوہ زانی
Week 3	کرؤمؤسؤمہ کان
Week 4	شېوازہکانی بۆماوہ 1
Week 5	شېوازہکانی بۆماوہ 2
Week 6	دابهش بوونی خانہ
Week 7	دہزودابهش بوون
Week 8	کہمہدابهشبوون
Week 9	Exam
Week 10	ہیماہی بۆماوہی
Week 11	دووانہ
Week 12	ماددہی بۆماوہی
Week 13	پیکہاتہی RNA

Lecturer's name
Dr. Khder Niazi (2 hrs)

Week 14	بازدان
18. Practical Topics (If there is any)	
19. Examinations:	
<p>1. Compositional: (2 نمره)</p> <p>پىناسەى بۆماوہ زانى بکە: بۆماوہ زانى: بریتىہ لہو زانستہى لہ ليکچوون و جياوازی دہکۆئیتہوہ لہناو تاکہکانى يہک چۆردا و ہ ہرودہا لہگواستتہوہى سيفتہتہکانى يان لہباوانہوہ بۆ نہوہکان.</p>	
<p>2. True or false type of exams:</p> <p>مرؤۋ خانہکانى کرومۆسۆمى تيدايہ بەشيوہى جووت ہەر جووتیک پيان دہلين (کرومۆسۆمى ليکچوو) ہەر دوو کرومۆسۆم ليکچوو يہکسانن لہ ژمارہى (gene). ✓</p>	
<p>3. Multiple choices:</p> <p>لہناو بۆشاييہکەدا پييتى وەلامى راست بنوسہ: ____ : ئەمەشيان چۆرکە لہناوکەترش ماددہى بۆماوہى سەرہکيیہ لہہندى ڤايروسات بەلام لہبوونہوہرہکانى تر بریتىہ لہنيوہندگىرى DNA+Protein.</p> <p style="text-align: right;">DNA (a) RNA (b)</p>	
20. Extra notes:	
The lectures could include video records about biology.	
21. Peer review	

