Course Description Form Genetics

1. Course Name:
Genetics
2. Course Code:
GENG308
3. Semester / Year:
Spring course 2023-2024
4. Description Preparation Date:
31/3/2024
5. Available Attendance Forms:
Full time (theoretical lecture and practical lecture) weekly
6. Number of Credit Hours (Total) / Number of Units (Total)
2 theoretical hours and 3 practical hours per week for 14 weeks. The number of unit 3.5 units
7. Course administrator's name (mention all, if more than one name)
Name: *Dania salman qahraman* Email: daniasalman@uodiyala.edu.iq Ghufran ali hussain
8. Course Objectives

Course Objectives	***Identify the importance of genetics, cell division, Medndelian Inherit,Chromosome structure of, and Chromosomal abnormalities***

9. Teaching and Learning Strategies	
Strategy	**lectures immanence for 14 weeks, including two monthly exams, da exams, and scientific reports**

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Introduction to the history and development of genetics.	Genetic	Explanation and display of the model And the lecture Dialogue and discussion Brainstorming	the exams Daily and monthly And final reports Daily
2	2	Cytological basis of Mendelian inheritance (cell cycle and mitosis.)	Genetic	Explanation and display of the model	the exams Daily and monthly And final reports Daily
3	2	Complementing the cytological basis of Mendelian inheritance (meiotic division).	Genetic	Explanation and display of the model And the lecture Dialogue and discussion	the exams Daily and monthly And final reports Daily

4	**2**	**Mendelian inheritance (law of isolation).**	**Genetic**	**Explanation and display of the model And the lecture Dialogue and discussion**	**the exams Daily and monthly And final reports Daily**
5	**2**	**Mendelian inheritance (law of free distribution).**	**Genetic**	**Explanation and display of the model And the lecture Dialogue and discussion**	**the exams Daily and monthly And final reports Daily**
		Exam			
6	**2**	**Interaction between genes and superiority states.**	**Genetic**	**Explanation and display of the model And the lecture Dialogue and discussion**	**the exams Daily and monthly And final reports Daily**
7	**2**	**The chemical basis of heredity and the construction of DNA.**	**Genetic**	**Explanation and display of the model And the lecture Dialogue and discussion**	**the exams Daily and monthly And final reports Daily**
8	**2**	**Complementing the chemical basis of genetic material (DNA replication, cloning, and translation).**	**Genetic**	**Explanation and display of the model And the lecture Dialogue and discussion**	**the exams Daily and monthly And final reports Daily**
9	**2**	**Inheritance of multiple alleles.**	**Genetic**	**Explanation and display of the model And the lecture Dialogue and discussion**	**the exams Daily and monthly And final reports Daily**
10	**2**	**Sex determination systems and sex-linked genetics**	**Genetic**	**Explanation and display of the model And the lecture Dialogue and discussion**	**the exams Daily and monthly And final reports Daily**
11	**2**	**Linkage, crossing**	**Genetic**	**Explanation**	**the exams**

		and genetic mapping.		and display of the model And the lecture Dialogue and discussion	Daily and monthly And final reports Daily
12	2	Environmental (environmental) influences and gene expression.	Genetic	Explanation and display of the model And the lecture Dialogue and discussion	the exams Daily and monthly And final reports Daily
		Exam			

Lab

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	3	Familiarity with the history and development of genetic sciences	General Genetics	Watching, Dialogue and Discussion	Daily, monthly, final and daily reports
2	3	Learn about the cell cycle and the process of mitosis	General Genetics	Watching, Dialogue and Discussion	Daily, monthly, final and daily reports
3	3	Learn about meiotic cell division	General Genetics	Watching, Dialogue and Discussion	Daily, monthly, final and daily reports
4	3	Learn about the law of segregation according to Mendelian inheritance	General Genetics	Watching, Dialogue and Discussion	Daily, monthly, final and daily reports
5	3	Learn about the law of free distribution according to Mendelian inheritance	General Genetics	Watching, Dialogue and Discussion	Daily, monthly, final and daily reports
6	3	First month exam	General Genetics	Watching, Dialogue and Discussion	Daily, monthly, final and daily reports
7	3	The student learns the relationship between genes	General Genetics	Watching, Dialogue and Discussion	Daily, monthly, final and daily reports
8	3	The student learns who the genetic material is made of	General Genetics	Watching, Dialogue and Discussion	Daily, monthly, final and

		and how it is repeated and transmitted to the next generations			daily reports
9	3	The student learns how genetic material is replicated and transmitted to the next generations.	General Genetics	Watching, Dialogue and Discussion	Daily, monthly, final and daily reports
10	3	The student learns what multiple alleles are and their effect on genetic variations.	General Genetics	Watching, Dialogue and Discussion	Daily, monthly, final and daily reports
11	3	The student learns about the relationship between heredity and the transmission of sexual characteristics to generations.	General Genetics	Watching, Dialogue and Discussion	Daily, monthly, final and daily reports
12	3	The student learns what linkage, crossing over, and genetic mapping	General Genetics	Watching, Dialogue and Discussion	Daily, monthly, final and daily reports
13	3	Exam	General Genetics	Watching, Dialogue and Discussion	Daily, monthly, final and daily reports

1. Course Evaluation	
Daily and monthly exams, reports, and student effectiveness during the lecture	
2. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Spencer & Cummings , Clug (2014, 2006). Genetics Concepts
Main references (sources)	
Recommended books and references (scientific journals, reports...)	Crop Science Society Of America Library Genesis The field crops _ principles and a practice Agronomy journal. Fundamentals of Weed Science
Electronic References, Websites	