

COURSE SYLLABI

Genetics

1 Contact hours: Contact Hours: 2 classrooms, 1 lab per week

2. Instructor's or course coordinator's name: Dr. Hussein A. Saud & Dr. Ilham J. Jalil

3. Textbook: Agrimoon .com. (2020).Principles of Genetics, 242p.

4. Specific course information

This subject (Genetics) provides students all principle and law of genetics including the genetic Mendelain problems and their solution, the heredity diseases and how the genetic e material transfer from generation to the other. And the central dogma process.

c. Elective: none

5. Specific goals for the course

a. Outcomes of instruction:

1. Knowledge of genetics and Gregory Johan Mendel genetic laws
2. Application on genetic problems
- 3.The importance of genomic modification for animal and plant to cover the food requirements.

b. Student outcomes addressed by this course:

Outcome	Requirements
Gaining educational skills in the field of genetic problem solving	Homework and exams are used to assess this outcome
Teaching students how to give lectures	This can be applied by evaluation a topic subjects of the curriculum after being presented by the student
Performing monthly and quarterly exams	The student passes the course after obtaining a passing grade

6. Topics covered in the course:

1. Introduction to genetics
2. Mendel's first law and its applications
3. Mendel's second law and its applications
4. Genetic of blood group in human
5. Types of dominance in genetics
6. Application on Types of dominance
7. Genetic diseases and their transmission

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8. Sex-linked genetics

9. Sex-influenced genetics

10- DNA and RNA structures

11- The nucleic acid and the codons

12- Transcription and translation of DNA

13- The Amino acids and proteins

14- The genetic mutations

Prepared by: Dr. Hussein A. Saud & Dr. Ilham J. Jalil

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