Course plan

Year: 1404	Semester: ■First, ☐Second, ☐Summer	Number of students:
Major: Master's Degree in Human Genetics	■ Basic sciences, ☐ Physiopathology	Department: Medicine
Course Title: Bioinformatics	☐Theoretical, ■Practical	Credit: Code N.:
Prerequisite:	Day & Time: Mondays 13:00, Tuesdays 10:00	Course type:
Instructor:	Office address:	Tel:
Email: mahboob.ganji@yahoo.com	Response Hours and Days:	Student representative name and mobile number:

Main objective: This course aims to familiarize students with the scope of bioinformatics, including sequence alignment and primer design.

On completion of this course, the student will be able to:

1. Effectively utilize specialized databases related to genomic data.
2. Design primers for PCR with accuracy and purpose.

References (Text books):
1- Pevsner, J. **Bioinformatics and Functional Genomics**, 3rd Edition. Wiley-Blackwell.
2- Bush, W. S., & Moore, J. H. Chapter 11: **Genome-Wide Association Studies. In Bioinformatics and Functional Genomics.**
3- Basu, C. **PCR Primer Design. In Methods in Molecular Biology**, Springer.

Student evaluation and the value related to each evaluation:
(The assessment tools that will be used to test student ability to understand the course material and gain the skills and competencies stated in learning outcomes)

ASSESSMENT TOOLS	From
Assignments	2
Quiz	2
Presence in online courses	-
Midterm Exam	-
Final Exam (Written exam)	16
TOTAL MARKS	**20**

Students responsibilities:

1- Mobile phones must be turned off during class or exams.
2- Attending class on time
3- It is necessary for the student to attend all class hours. Unexcused absence during the course will result in a grade deduction.

Discipline and educational rules:

1- It is applied according to the regulations of the educational regulations

Row	date	Time	Topic	Professor	References	Chapter	Pages
1	Monday	13-15	Introduction of Bioinformatics	Ganji	Pevsner, J. **Bioinformatics and Functional Genomics**		
2	Tuesday	10-12	Bioinformatics Soft wares	Ganji	Pevsner, J. **Bioinformatics and Functional Genomics**		
3	Monday	13-15	Genetic Variants 1	Ganji	1- Bush, W. S., & Moore, J. H. Chapter 11: **Genome-Wide Association Studies. In Bioinformatics and Functional Genomics.**		
4	Tuesday	10-12	Genetic Variants 2	Ganji	1- Bush, W. S., & Moore, J. H. Chapter 11: **Genome-Wide Association Studies. In Bioinformatics and Functional Genomics.**		
5	Monday	13-15	Sequence Alignment	Ganji	Pevsner, J. **Bioinformatics and Functional Genomics**		
6	Tuesday	10-12	Basic Local Alignment Search Tool (BLAST)	Ganji	Pevsner, J. **Bioinformatics and Functional Genomics**		
7	Monday	13-15	Primer Design	Ganji	Basu, C. **PCR Primer Design. In Methods in Molecular Biology**		
8	Tuesday	10-12	Protein Structure	Ganji	Pevsner, J. **Bioinformatics and Functional Genomics**		