Course title	Code	semester	T+U	credit	ECTS
bioinformatics		7	3+0	3	4

Prerequisite Courses	None
Language of the Course	English
Course Level	Undergraduate
Type of Course	Optional
Course Coordinator	
Instructors	
Course Assistants	
The aim of lesson	It is aimed to provide an understanding of the techniques used to make information from biology databases understandable and organized.
Course Content	The concept of bioinformatics and its uses, information theory, information collection, processing and sharing, creating and using a database, examining protein and nucleotide databases, primer design, evaluation of nucleotide and protein sequence analysis results.
Course Learning Outcomes	Students who successfully complete this course; 1. Will be able to learn the usage areas of bioinformatics. 2. Will be able to learn about the collection and processing of information. 3. will be able to use biological data banks. 4. Will be able to evaluate the results of sequence analysis.

Weeks	Topics
one	Bioinformatics Concept
2	Bioinformatics Usage Areas
3	Information Theory
4	Collection and Processing of Information
5	Collection and Processing of Information
6	Sharing Information
7	Creating and Using Data Banks
8	Creating and Using Data Banks
9	Nucleic Acid and Protein Biochemistry
10	Nucleic Acid and Protein Biochemistry
11th	Analysis of Nucleic Acid Databases
12	Analysis of Nucleic Acid Databases
13	Primer Design
14	Evaluation of Nucleotide Sequence Analysis Results
15	Evaluation of Nucleotide Sequence Analysis Results

General Competencies

To provide an understanding of the techniques used to make information from biology databases understandable and organized.

resources

Arthur M. Lesk, “Introduction to Bioinformatics”, 2002, Oxford University Press, New, ISBN-13: 978-0199208043

S. Qing Ye “Bioinformatics : A Practical Approach”, Chapman and Hall/CRC, London, 2007, ISBN-13: 978-1584888109

Evaluation System

The dates, days and hours of the Midterm Exam, Quiz, Final Exam and Evaluations will be announced later, according to the decision of the Faculty Administrative Board.

	WITH PROGRAM LEARNING OUTCOMES COURSE LEARNING OUTCOMES RELATIONSHIP TABLE										
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**
LO1	4	4	5	4	4	4	4	5	4	4	4
INCREASE 2	4	4	5	4	4	4	4	5	4	4	4
INCREASE 3	4	4	5	4	4	4	4	5	4	4	4
INCREASE 4	4	4	5	4	4	4	4	5	4	4	4
LO: Learning Outcomes OP: Program Outcomes											
Contribution Level	**1 Very Low**		**2 Low**		**3 Medium**		**4 High**		**5 Very High**		

Relation of Program Outcomes and Related Course

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**
bioinformatics	4	4	5	4	4	4	4	5	4	4	4