

School of Engineering and Natural Sciences / Computer Engineering (English)

2022 - 2023 Academic Year

BIOINFORMATICS

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
BIOINFORMATICS	COE4110345	Fall Semester	3+0	3	6
Prerequisites Courses	OLASILIK VE RASSAL DEĞİŞKENLER				
Recommended Elective Courses	Consent of Department				
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Elective				
Course Coordinator	Prof.Dr. Reda ALHAJJ				
Name of Lecturer(s)	Prof.Dr. Reda ALHAJJ				
Assistant(s)					
Aim	The course provides an introduction to the field of bioinformatics including key concepts, algorithms, structures and databases, the development of the field historically, its applications and relevant developments in the field. The course covers the basics of bioinformatics sequence analysis and related tools and databases. Topics covered include pairwise alignment, score matrices, sequence database search, biological networks, network analysis and machine learning techniques, and visualization. The course also an overview of basics of molecular biology, including the concepts of genomes and genes and includes an introduction to genome browsers and central biological databases and knowledge-bases. □□□□				
Course Content	This course contains; .				
Course Learning Outcomes		Teaching Methods		Assessment Methods	
Teaching Methods					
Assessment Methods					
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
Evaluation Methods		Weight(%)			
Midterm Exam		30			
General Exam		70			

Resources	
"No specific text book, notes will be made available, including in class notes, (sometimes) slides, research papers, book chapters, etc. Recommended Reference: Understanding Bioinformatics Marketa Zvelebil & Jeremy O. Baum" □□□	