

UNDERGRADUATE COURSE DETAILS

Course Title: Enzyme Biotechnology				Code : USD2		Faculty: Art and Science: Molecular Biology and Genetics			
Education and Teaching Methods							Credits		
Lecture	Application	Lab.	Project/ Field Study	Homework	Other	Total	Credit T+A+L=Credit	ECTS	
42	-	-	-	-	-	42	2+0+2	3	
Semester		Autumn/Spring		Language			Turkish		
Course Type	Basic Scientific ☐		Scientific ☐		Compulsary Elective ☒		Social Elective ☐		
Course Objectives	To teach enzyme biotechnology and its applications.								
Learning Outcomes and Competencies	Students learn enzyme biotechnology application areas.								
Textbooks and /or References	Lehninger's Principles of Biochemistry, Nelson & Cox								
ASSESSMENT CRITERIA									
Theoretical Courses				Project Course and Graduation Study					
	If any, mark as (X)	Percent (%)		If any, mark as (X)	Percent (%)				
Midterm Exams	1	40	Midterm Exams						
Quizzes	-		Midterm Controls						
Homework	-		Term Paper						
Term Paper, Project Reports, etc.	-		Oral Examination						
Laboratory Work	-		Final Exam						
Final Exam	1	60	Other						
Other									
Week	Subjects								
1	Nature of the enzymes								
2	Microorganisms, chosin the line and reproduction parameters								
3	Optimisation of the reproduction conditions.								
4	Enzyme production ways.								
5	Applications of enzymes								
6	Genetic and protein engineering								
7	Enzyme production technology, isolation, purification and characterisation.								
8	Enzyme isolation								
9	Enzyme purification and characterisation								
10	Immobilized enzymes								
11	Some important industrial enzymes 1								
12	Some important industrial enzymes 2								
13	Applications of industrial enzymes.								
14	Applications of industrial enzymes.								
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