

UNDERGRADUATE COURSE DETAILS

Course Title: Molecular basis of aging				Code : ÜDS1		Faculty or VS: Faculty of Science and Arts Programme: Chemistry			
Education and Teaching Methods							Credits		
Lecture	Application	Lab.	Project/ Field Study	Homework	Other	Total	Credit T+A+L=Credit	ECTS	
Semester			7		Language		Turkish		
Course Type	Basic Scientific ☐		Scientific ☐		Technical Elective ☒		Social Elective ☐		
Course Objectives	Understanding of some theories that explain aging at the molecular level								
Learning Outcomes and Competencies	Some theories about aging will be understood at the molecular level. In addition, information about some factors that cause aging will be gained.								
Textbooks and/or References	1. Nelson, D. L., Lehninger, A. L., & Cox, M. M. (2008). <i>Lehninger principles of biochemistry</i>. Macmillan. 2. Hengartner, M. O. (2000). The biochemistry of apoptosis. <i>Nature</i>, 407(6805), 770. 3. Jin, K. (2010). Modern biological theories of aging. <i>Aging and disease</i>, 1(2), 72.								
ASSESSMENT CRITERIA									
Theoretical Courses					Project Course and Graduation Study				
	If any, mark as (X)	Percent (%)		If any, mark as (X)	Percent (%)				
Midterm Exams	X	40	Midterm Exams						
Quizzes			Midterm Controls						
Homework			Term Paper						
Term Paper, Project Reports, etc.			Oral Examination						
Laboratory Work			Final Exam						
Final Exam	X	60	Other						
Other									
Week	Subjects								
1	What is aging?								
2	What is aging								
3	Endocrine Theory								
4	Endocrine Theory								
5	Immunological Theory								
6	Wear and tear theory.								
7	Cross-linking theory								
8	Free radicals theory								
9	DNA damage theory								
10	Telomere theory								
11	Mitochondria damage theory								
12	Final exam.								
13									
14									
Instructor/s	Prof.Dr. Oktay ARSLAN								
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Website									