Course Syllabus

Code - Course Title	**BİY568 - Free Radicals and Antioxidants**
Course Type	II. SEMESTER
Laboratory + Practice	3+0
ECTS	**6.0**
Language of Instruction	Türkçe
Course Type	Elective Courses
Course Instructor(s)	PROF. DR. FİLİZ ÖZDEMİR

Mode of Delivery	face to face
Prerequisites	There is no prerequisite or co-requisite for this course.
Courses Recomended	Biochemistry, molecular biology
Work Placement	Not Applicable

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Introduction to Free Radicals	
Week - 2		Structure of Free Radicals, sources and Reactions	
Week - 3		Biochemistry and Sources of Reactive Oxygen and Nitrogen Species	
Week - 4		Oxidative Stress and Cancer	
Week - 5		Mitochondrial DNA Damage	
Week - 6		Lipid Peroxidation	
Week - 7		Effects of the Free Radicals to Proteins	
Week - 8		Effects of the Free Radicals to Carbonhydrates	
Week - 9		Carcinogenic Process and Role of Free Radicals	
Week - 10		Antioxidant Defence Mechanism in Carcinogenesis	
Week - 11		Antioxidant Defence Mechanism in Carcinogenesis	
Week - 12		Enzymatic Antioxidants: Superoxide Dismutase, Catalase,Glutathione Peroxidase	
Week - 13		Non-enyzmatic Antioxidants	
Week - 14		Vitamin C, Vitamin E, Glutathione, Flavonoids, Coenzyme Q10	

Learning Outcomes

#	Learning Outcome
1	illustrate the reactions, sources and structure of the free radicals.
2	interpret the relation between oxidative stress and cancer.
3	relate antioxidants with each other, which can overcome the free radicals.

Sustainable Development Goals

No content has been provided.

Course Theme

No content has been provided.

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	0	0	0
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	0	0	0
Ödevler	0	0	0
Proje - Rapor - Sunum Hazırlama	0	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	0	0	0
Final Sınavı Hazırlığı (sınav süresi dahil)	0	0	0
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	0	0	0
Staj Uygulaması	0	0	0
		Calculated ECTS	**0**

Assessment Method and Passing Requirements

No content has been provided.