Course Syllabus

Code - Course Title	**FKM532 - Structure-Activity Relationships in Pharmaceutical Chemistry**
Course Type	II. SEMESTER
Laboratory + Practice	3+0
ECTS	**6.0**
Language of Instruction	Türkçe
Course Type	Elective Courses
Course Instructor(s)	PROF. DR. LEYLA YURTTAŞ

Mode of Delivery	Face to face learning
Prerequisites	There is no prerequisite or co-requisite for this course.
Recommended Resources	Farmasötik ve Medisinal Kimya (2021) Hacettepe Üniversitesi Yayınları.
Work Placement	Not Applicable

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Basic concepts in structure-activity relationships	
Week - 2		Physicochemical properties, solubility	
Week - 3		Partition coefficient, surface activity	
Week - 4		Acid-base properties, ionization	
Week - 5		Stereochemistry, electronic properties	
Week - 6		Structural properties, steric properties	
Week - 7		Molecular connectivity index, isosterism	
Week - 8		Bioisosterism	
Week - 9		Pharmacophore groups, metabolic stability	
Week - 10		Drug-receptor interactions	
Week - 11		Quantitative structure- activity relationships (QSAR)	
Week - 12		Hansch analysis, Free-Wilson analysis	
Week - 13		Fujita-Ban analysis, computer based methods	
Week - 14		Drug design according to structure-activity relationships	

Learning Outcomes

#	Learning Outcome
1	Will be able to list the properties of structure-activity relationships in pharmaceutical chemistry.
2	Will be able to interpret the structure-activity relationships in drug molecules in terms of physicochemical properties.
3	Will be able to interpret the structure-activity relationships in drug molecules in terms of their structural properties.
4	Will be able to define quantitative structure-activity relationships (QSAR) in drug molecules.
5	Will be able to design new drug molecules according to structure-activity relationships.

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.