Course Syllabus

Code - Course Title	**FBİ507 - Laboratory Methods Used in Pharmaceutical Biotechnology**
Course Type	II. SEMESTER
Laboratory + Practice	3+0
ECTS	**6.0**
Language of Instruction	Türkçe
Course Type	Elective Courses
Course Instructor(s)	DOÇ. DR. BEHİYE ŞENEL

Mode of Delivery	The mode of delivery of this course is face to face
Prerequisites	There is no prerequisite or co-requisite for this course
Courses Recomended	There is no recommended optional programme component for this course
Recommended Resources	Basic Laboratory Methods for Biotechnology: Textbook and Laboratory Reference, Lisa A. Seidman, Cynthia J. Moore Benjamin Cummings, 2009.
Work Placement	Practical training is not required for this programme

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Equipments and Their Intended Use in Pharmaceutical Biotechnology	
Week - 2		Formulation of Biological Products with Drug Delivery Systems	
Week - 3		Determination of The Properties of The Biological Product Used	
Week - 4		Methods of Isolation of Biological Products from the Formulation	
Week - 5		Determination of Loading Capacity and Quantity of Biological Products in the Formulation	
Week - 6		Electrophoresis Methods Used for Pharmaceutical Dosage Forms Containing Protein and Gene Products	
Week - 7		Preparation of Gene Products to be Used in Pharmaceutical Dosage Forms	
Week - 8		Reproduction, Characterization and Purification of Plasmid DNA	
Week - 9		Particle Size and Zeta Potential Analysis in Pharmaceutical Dosage Forms Containing Biological Product	
Week - 10		Microscopic Analysis in Pharmaceutical Dosage Forms Containing Protein and Gene Product	
Week - 11		Cell Culture Methods Applied to Pharmaceutical Dosage Forms Containing Protein and Gene Products	
Week - 12		Transfection Studies in Gene-Delivering Pharmaceutical Dosage Forms	

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Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 13		Sterilization Methods in Pharmaceutical Dosage Forms Containing Protein and Gene Products	
Week - 14		Sample Demonstrations with Laboratory Applications	

Learning Outcomes

#	Learning Outcome
1	Recognizes the devices used in Pharmaceutical Biotechnology laboratory
2	Counts gene products to be used in formulation preparation

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.