Course Syllabus

Code - Course Title	**FBİ502 - Production Process of Biological/Biotechnological Medicines**
Course Type	II. SEMESTER
Laboratory + Practice	3+0
ECTS	**6.0**
Language of Instruction	Türkçe
Course Type	Required Courses
Course Instructor(s)	PROF. DR. GÜLAY BÜYÜKKÖROĞLU

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	Industrial Biotechnology: Products and Processes editör: Christoph Wittmann, James C. Liao, 2017Textbook of Pharmaceutical Biotechnology - E-Book Yazar: Chandrakant Kokate, SS Jalalpure, Pramod H.J, 2011Pharmaceutical Biotechnology: A Focus on Industrial Application Editörler Adalberto Pessoa, Jr., Michele Vitolo, Paul Frederick Long, 2021
Work Placement	Practical training is not required for this programme

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Upstream Process	
Week - 2		Cell Banks	
Week - 3		Master Cell Bank (MCB)	
Week - 4		Working Cell Bank (WCB)	
Week - 5		End of Production Cells (EOPC)	
Week - 6		Viability, Stability, Purity of Cell Banks	
Week - 7		Scale-up for Commercial Product Development	
Week - 8		Large Scale Fermentation Processes	
Week - 9		Fermentors and Bioreactors	
Week - 10		Downstream Process	
Week - 11		İnitial Product Recovery, Cell Disruption and Removal of Nucleic Acids	
Week - 12		Initial Product Concentration	

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Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 13		Analytical Characterization of Therapeutic Protein	
Week - 14		Purification of Recombinant Therapeutic Protein	

Learning Outcomes

#	Learning Outcome
1	Explain the production processes of biotechnological drugs
2	Know the conditions for large-scale production
3	Counts the controls to be made about the products produced

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.