Course Syllabus

Code - Course Title	**FBİ512 - Therapeutic Antibodies and Its Production Technologies**
Course Type	II. SEMESTER
Laboratory + Practice	3+0
ECTS	**6.0**
Language of Instruction	Türkçe
Course Type	Elective 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	Therapeutic Proteins: Methods and Protocols, Editörler: Vladimir Voynov, Justin A. Caravella, 2012Protein Therapeutics Editor(s): Tristan Vaughan, Jane Osbourn, Bahija Jallal, 2017Engineering Monoclonal Antibodies. Büyükköroğlu G, Şenel B. Omics Technologies and Bio-Engineering2018. p. 353-89.
Work Placement	Practical training is not required for this programme

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Structure and Types of Antibodies: Polyclonal antibodies (PoAb)	
Week - 2		Monoclonal antibodies (mAbs)	
Week - 3		Evolution of Antibody Therapeutics, Nomenclature of Antibodies	
Week - 4		Production of mAbs; Hybridoma technique	
Week - 5		Phage display technique	
Week - 6		Production of mAbs using transgenic animals and plants	
Week - 7		Production of mAbs using recombinant DNA technology	
Week - 8		Midterm	
Week - 9		Production of mAbs using recombinant DNA technology: Creation of cell banks and their control	
Week - 10		Production of mAbs using recombinant DNA technology: Large scale production, upstream and downstream production processes of mAbs	
Week - 11		Formulation of mAbs	
Week - 12		Formulation of mAbs; Approved mAbs and their use in different branches of medicine	

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Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 13		Homework presentation	
Week - 14		Final exam	

Learning Outcomes

#	Learning Outcome
1	Enumerate the Structure and Types of Antibodies
2	Compare Polyclonal antibodies (PoAb) and Monoclonal antibodies (mAbs)
3	Explain the Evolution of Antibody Therapeutics
4	Enumerate the rules in Nomenclature of Antibodies
5	Classify the Production of mAbs
6	Explain the upstream and downstream production processes of mAbs
7	Discuss the Formulation of mAbs
8	Enumerate the Approved mAbs Used in Different Branches of Medicine

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.