

## **Syllabus of biotechnology course**

	Hours
Principles of biotechnology	1h
Types of Biotechnology	1h
The structure of microbes	1h
Fermentation technologies	3h
Solid substrate fermentation	
Liquid fermentation	
Batch fermentation	
Feed-batch process	
Continuous fermentation	
Downstream processing	
Monoclonal antibodies	3h
Antibodies structure	
Development of antibody-based therapeutics	
Applications of monoclonal antibodies	
Vaccine preparations	
Microbial products	5h
Single cell protein	
Biological fuels	
Hormones production	
Enzymes production	
Ethanol, Methanol production	
Biogas (methane) production	
Antibiotics Production	
Penicillin Production	
Biodegradation and bioremediation	1h
Bioterrorism/Bio defenses	1h
Bioethics/Biosafety	1h
Advanced drug delivery	3 h
The role of Genomics and Proteomics in biotechnology	1h
Total	21h