

Ankara Üniversitesi
Kütüphane ve Dokümantasyon Daire Başkanlığı
Açık Ders Malzemeleri

Syllabus

Course Title and Code	Microbial Biotechnology BIO440
Instructors	Fadime KIRAN, Assoc. Prof.
Course Level	Bachelor's Degree
Course Credit	2 credit (3 ACTS)
Course Type	Elective
Course Content	The use of microorganisms in wastewater treatment, Properties of industrial microorganisms, Primer and seconder microbial metabolites, Fermentation and scale-up, Isolation of antibiotic producing microorganisms, Industrial production of penicillines and tetracyclines, Industrial production of vitamins and amino acids, Industrial production of enzymes and biotransformation, Industrial production of Vinegar, Citric acid and other organic acids, Yeasts and their industrial importance, Production of beer and wine, Production of distilled beverages,
Course Goals	The practical use of microorganisms for industrial purposes
Learning Outcomes	1) Learns the industrial applications of microorganisms. 2) Learns the positions of microorganisms in our daily life. 3) Recognizes the industrial and biotechnological importance of microorganisms.
Course Time	2+0
Language of Instruction	English
Prerequisites	None
Recommended Sources	1) Brock Biology of Microorganisms, Madigan, Martinko and Parker, Prentice Hall. 2013. 2) Industrial Microbiology: an introduction, Waites, Morgan, Rockey and Higton. John Wiley and Sons Limited. 2015.