



BIOTECHNOLOGICAL MICRORGANISMS MOD 1

Enrollment year	2019/2020
Academic year	2021/2022
Regulations	DM270
Academic discipline	BIO/19 (GENERAL MICROBIOLOGY)
Department	DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY "LAZZARO SPALLANZANI"
Course	BIOTECHNOLOGY
Curriculum	Chem- Pharma-Tech
Year of study	3°
Period	(01/10/2021 - 14/01/2022)
ECTS	3
Lesson hours	24 lesson hours
Language	Italian
Activity type	ORAL TEST
Teacher	DE ROSSI EDDA (titolare) - 3 ECTS
Prerequisites	Basic knowledge of General Microbiology and Molecular Biology.
Learning outcomes	To offer knowledge of the characteristics of the main microorganisms involved in biotechnological processes and of the techniques that allow their isolation and identification. To offer knowledge and skills in areas of structure functioning and application of microorganisms in fermentation processes; to equip students understand the relevance of applied microbiology.
Course contents	Microorganisms commonly used in industrial Microbiology and Biotechnology: Escherichia coli, Streptomyces, Bacillus subtilis, lactic acid bacteria, Corynebacteria and Myxobacteria. Culture collections. Genetics and strain improvement. Fermentation and cell culture. Biotechnological applications of bacteria and viruses. Microbial insecticides. Plant growth-promoting bacteria.

Teaching methods	Lectures.
Reccomended or required readings	- Donadio S, Marino G. Biotecnologie Microbiche. Casa Editrice Ambrosiana, Milano. 2008. - Didactic material provided by teachers (Kiro web site).
Assessment methods	The examination is written.
Further information	==
Sustainable development goals - Agenda 2030	\$lbl legenda sviluppo sostenibile