

Master's Degree in Biotechnology and Medical Biology
Study Plan A. Y. 2021/2022

Year	Course	Credits	Scientific Disciplinary Sectors	Complusory / Optional
	Gene Expression, from single molecules to systems biology	2	FIS/07	OPT
	Cell and Gene Therapy	6	BIO/17	COM
	Chemistry-driven modern drug discovery: from chemical probes to hits, leads and drug	6	BIO/14	COM
	Biotechnological drugs and targeted delivery systems	1	BIO/10	OPT
	Cell reprogramming techniques for disease modeling and cell therapies	1	BIO/13	OPT
	Biotechnologi in azienda: le professioni del mondo farmaceutico	1	MED/04	OPT
	Creativity and innovation	1	M-PSI/06	OPT
	Emerging pathogenic viruses: past, present and future	1	MED/07	OPT
	Advanced diagnostics in oncology and internal medicine	4		OPT
	- Advanced diagnostics in oncology and internal medicine 1	2	MED/04	
	- Advanced diagnostics in oncology and internal medicine 2	2	BIO/17	
	Diagnosis of Genetic Diseases	6	MED/05	
	Emerging Biotechnological Technologies: innate Immunity and Nucleic Acid Sensing in Human Health and Disease	3	MED/50	COM
	Molecular and Cellular Neurosciences	6	BIO/09	COM
	Intrinsic and extrinsic factors in tumor progression	6	MED/09	COM
	Host defense and immunopathology during chronic respiratory infections	1	MED/04	OPT
	Immunogenetics	1	MED/03	OPT
	Metabolism in cancer and immunity	2	BIO/10	OPT
	Immunopathogenesis of HIV infection	1	MED/04	OPT
	General and preclinical toxicology	1	BIO/14	OPT
1	Molecular cell biology	6	BIO/13	COM
	The biocompatibility of biomedical devices	1	MED/41	OPT
	Molecular mechanisms of diseases	10		

	- Molecular mechanisms of diseases 1	6	MED/04	
	- Molecular mechanisms of diseases 2	4	MED/09	
	Translational research: how to create value for the patient	1	SECS-P/08	OPT
	Pharmacological trials	2	BIO/14	OPT
	Research Organization	4		OPT
	- Research Organization 1	2	SECS-P/07	
	- Research Organization 2	2	SECS-P/10	
	Molecular Virology	6	MED/07	COM
	Regulation of gene expression	6	BIO/11	COM
	Omics data analysis and interpretation	6	BIO/11	COM
	Beyond scientific know how: critical competences to land a job	1	MED/04	OPT
	Biophysical methods in structural biology	1	BIO/10	OPT
	Development and function of the lymphoid microenvironment	1	MED/04	OPT
	Life on the Edge: Biology and Pathophysiology of Stress and Inflammatory Responses	1	BIO/11	OPT
	Elements of oncology and Immunology of metastatic disease: towards combined therapies	2	MED/04	OPT
	Drug discovery in neuropsychopharmacology	2	BIO/14	OPT
	Animal Models in Biomedical Research	2	MED/50	OPT
	Proteomics and Metabolomics	2	BIO/10	OPT
2	Logic of Scientific Discovery and Innovation	2	M-FIL/02	COM
	Biotechnological Aspects of Assisted Reproduction	2	MED/40	COM
	Quality in Biotechnological Processes	1	ING-IND/35	COM
	Tissue Engineering strategies in Orthopaedics	2	MED/33	COM
	Morphological and Functional Imaging	2	MED/37	COM
	Thesis Intern	36	PROFIN_S	COM