



UNIVERSITÀ
DI TORINO

SCUOLA DI MEDICINA
DIPARTIMENTO DI BIOTECNOLOGIE MOLECOLARI E SCIENZE PER LA SALUTE
CORSO DI LAUREA MAGISTRALE IN MOLECULAR BIOTECHNOLOGY

MASTER PROGRAM IN MOLECULAR BIOTECHNOLOGY CURRICULUM BIOMEDICAL IMAGING AND DRUG DISCOVERY AA 2023/2024		
FIRST YEAR		
First semester		
BIO0108	Physiology and Biochemistry	10 ECTS
	Physiology	5
	Biochemistry	5
BIO0154	Computational genomics and Gene Networks	10 ECTS
	Computational genomics and epigenomics	5
	Interactions and Gene Networks	5
BIO0214	Principles of drug discovery	5 ECTS
BIO0153	Supramolecular chemistry and Spectroscopic methods	8 ECTS
	Supramolecular and Bioinorganic Chemistry	3
	Spectroscopy of biomolecules	5
Second semester		
BIO0242	Biomedical imaging	11 ECTS
	PET/SPECT/CT	5
	MRI/OI/US/PAI	6
BIO0157	Data analysis	6 ECTS
BIO0159	Stage I	6 ECTS
BIO0158	Thesis I	5 ECTS
SECOND YEAR		
First semester		
BIO0160	Advanced materials and methods for health sciences	10 ECTS
	Mass Spectrometry	5
	Nanomaterials	5
BIO0161	Advanced Drug Discovery	5 ECTS
BIO0163	Immuno-based assays for translational medicine	7 ECTS
	Immuno-based assays for translational medicine I	5
	Immuno-based assays for translational medicine II	2
Second semester		
BIO0162	In vitro diagnostics: proteomics, interactomics and metabolomics	5 ECTS
BIO0164	Biotech Companies Management	4 ECTS
BIO0165	Stage II	6 ECTS
BIO0166	Thesis II	14 ECTS



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**MASTER PROGRAM IN MOLECULAR BIOTECHNOLOGY
FREELY CHOSEN COURSES (for both curricula)
A.Y. 2023/2024**

First Semester

BIO0185	Cancer Metabolism	4 ECTS
BIO0218	Metals in Medicine and biological systems	4 ECTS
BIO0178	Image Analysis for Biotechnologists	4 ECTS
BIO0192	Molecular Pharmacology	2 ECTS
BIO0213	Imaging of brain disease and therapy	4 ECTS

Second Semester

BIO00221	Methods in computational biology	6 ECTS
	Methods in computational biology I	2
	Methods in computational biology II	2
	Methods in computational biology III	2
BIO0186	Molecular Medicinal Chemistry	6 ECTS
BIO0187	Genetic Models of Human Pathology	6 ECTS
BIO0188	In vivo Imaging of Cancer Therapy	4 ECTS
BIO0189	Enabling technologies in drug synthesis and processing	4 ECTS
BIO0219	Pathologic basis of disease	4 ECTS
BIO0120	Scientific Communication	4 ECTS
	Scientific Communication 1	1
	Scientific Communication 2	2
	Scientific Communication 3	1
BIO0191	The Hallmarks of Ageing: molecular basis of ageing-associated syndromes	4 ECTS
BIO0217	Advanced Mass Spectrometry	4 ECTS
BIO0220	Computational Drug Discovery	4 ECTS
BIO0249	Biotechnology in and towards environmental sustainability	4 ECTS
	Biology for sustainability	2
	Environmental sustainability	1
	Biology for sustainable agrifood system	1