



UNIVERSITÀ DEGLI STUDI 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 DIAGNOSTICS AND DRUG DISCOVERY
AA 2021/2022**

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

BIO0155	In vivo diagnostics		11 ECTS
	In vivo diagnostics: PET/SPECT/CT		5
	In vivo diagnostics: MRI/OI/US/PAI		6
BIO0157	Data analysis		6 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



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**MASTER PROGRAM IN MOLECULAR BIOTECHNOLOGY
FREELY CHOSEN COURSES (for both curricula)
A.Y. 2021/2022**

SECOND YEAR

I sem	BIO0185	Cancer Metabolism	4 ECTS
I sem	BIO0218	Metals in Medicine and biological systems	4 ECTS
I sem	BIO0178	Image Analysis for Biotechnologists	4 ECTS
I sem	BIO0192	Molecular Pharmacology	2 ECTS
I sem	BIO0213	Imaging of brain disease and therapy	4 ECTS
II sem	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
II sem	BIO0186	Molecular Medicinal Chemistry	6 ECTS
II sem	BIO0187	Genetic Models of Human Pathology	6 ECTS
II sem	BIO0188	In vivo Imaging of Cancer Therapy	4 ECTS
II sem	BIO0189	Enabling technologies in drug synthesis and processing	4 ECTS
II sem	BIO0219	Pathologic basis of disease	4 ECTS
II sem	BIO0120	Scientific Communication	4 ECTS
		Scientific Communication 1	1
		Scientific Communication 2	2
		Scientific Communication 3	1
II sem	BIO0191	The Hallmarks of Ageing: molecular basis of ageing-associated syndromes	4 ECTS
II sem	BIO0217	Advanced Mass Spectrometry	4 ECTS
II sem	BIO0220	Computational Drug Discovery	4 ECTS