The master's degree has a study load of 60 credits (1 academic year) for all students

Additional credits to be taken as bridging courses

Students with degrees in chemistry, physics, nursing, podiatry, dentistry and engineering must complete additional bridging courses with a study load of 6 credits:
569919 Principles of Cell Biology and Molecular Biology in Genetics and Pathophysiology (6 credits)

LEARNING CONTENT FOR THE ACADEMIC YEAR

COMPULSORY SUBJECTS FOR ALL SPECIALIZATIONS

Code	Subjects	Semester	Credits
569886	Experimental Models in Biomedicine (**)	First	3
569887	From Bench to Bedside: Translation to the Clinic of Advances in Biomedical Research. (**)	First	3
569888	Scientific Communication (**)	First	3
569889	Conducting Research Projects (**)	Second	3
		Total	12

(**) This subject will be taught mainly in English.

Students must complete all of the subjects corresponding to their chosen specialization.

Specialization 1. BASIC AND TRANSLATIONAL RESEARCH IN HUMAN DISEASE

OPTIONAL SUBJECTS-COMPULSORY FOR SPECIALIZATION

Code	Subjects	Semester	Credits
569890	Molecular Principles and Cancer Research (**)	First	**3**
569891	Molecular Principles and Research in Metabolism and Endocrinology (**)	First	**3**
569892	Molecular Principles and Research in Infectious Disease and Immunology (**)	First	**3**
569893	Molecular Principles and Research in Neurobiology (**)	First	**3**
		Total	12

(**) This subject will be taught in English

Specialization 2. BASIC AND TRANSLATIONAL RESEARCH IN CANCER

OPTIONAL SUBJECTS-COMPULSORY FOR SPECIALIZATION

Code	Subjects	Semester	Credits
569894	Advances in the Molecular Mechanisms of Cell Transformation (**)	First	**3**
569895	Advances in the Molecular Mechanisms involved in the Progression and Spread of Cancer (**)	First	**3**
569896	Translational Therapy and Research in Cancer (*)	First	**6**
		Total	12

(*) This subject will be taught partly in English
(**) This subject will be taught in English

Specialization 3.: BASIC AND TRANSLATIONAL RESEARCH IN ENDOCRINOLOGY AND METABOLISM

OPTIONAL SUBJECTS-COMPULSORY FOR SPECIALIZATION

Code	Subjects	Semester	Credits
569897	Molecular and Cellular Principles and Pathophysiology of Diabetes (**)	First	3
569898	Molecular and Cellular Principles and Pathophysiology of Obesity (**)	First	3
569899	Arteriosclerosis, Dyslipidaemia and Cardiovascular Disease	First	3
569900	New and Translational Therapies in Metabolic Disease (**)	First	3
		Total	12

(**) This subject will be taught in English

OPTIONAL SUBJECTS

Students must complete 9 credits corresponding to optional subjects, of which 6 credits must correspond to methodological subjects. The remaining 3 credits may be completed with any of the optional subjects.

Code	Subjects	Semester	Credits
	METHODOLOGICAL		
569904	Genomics and Proteomics	First	3
569905	Cell Cultures and Cell Engineering	First	3
569906	Histopathology Techniques	First	3
569907	Fluorescence Microscopy Techniques (**)	First	3
575031	High content screening: image and data analysis of cell populations (**) (*)	First	3
573116	Bioinformatics applied to Biomedicine (course 24-25 will not be offered)	First	3
	NON-METHODOLOGICAL		
573117	Ageing and Senescence (**)	First	3
573599	Epigenetics: Mechanisms and Applications in Biomedicine (**)	First	3
569910	Stem Cells and Regenerative Medicine (**)	First	3
569911	Research, Development and Innovation Management (**)	First	3
		Total	30

(**) This subject will be taught in English

(*) To course this subject at least one of the following two conditions should be fulfilled:
1) the course 569907 should also be taken; or, 2) have previous knowledge of fluorescence microscopy (ask coordinators of the subject if you need additional information)

METHODOLOGICAL

	Animal Testing Methods ***http://www.ccit.ub.edu/CA/cursuea15.html*** **These are carried out at the CCiTUB. Once complete, the 3 credits may be registered without altering the gradepoint average of the student's academic record.** Students requesting study grant must enrol for the full study load of 60 credits.	3

MODULE 4. FINAL PROJECT

All students must complete the 27 credits corresponding to the Final Project.

Code	Subjects	Semester	Credits
569912	Final Project	Second	27