

**Doctorate in Molecular Biomedicine**

**Synthesis of Academic Program**

**First term**

List of subjects or learning units	Key	Prerequisite	Hours		Credits (Units)
			With teacher	Independent	
Design of experiments and biostatistics	DBM5011		48	48	6
Molecular and cellular biology	DBM5021		48	48	6
Experimental analytical methods	DBM5031		48	48	6
Pharmacology and toxicology	DBM5041		48	48	6
		Total	192	192	24

**Second term**

List of subjects or learning units	Key	Prerequisite	Hours		Credits (Units)
			With teacher	Independent	
Pathophysiology	DBM5051		48	48	6
Drug design	DBM5061		48	48	6
Experimental biological and molecular methods	DMB5071		48	48	6
Basic elective 1			48	48	6
		Total	192	192	24

**Third term**

List of subjects or learning units	Key	Prerequisite	Hours		Credits (Units)
			With teacher	Independent	
Seminar for professional responsibility	PTA5011		48	48	6
Knowledge exam	DBM5121	DBM5011	48	48	6
		DBM5021			
		DBM5031			
		DBM5041			
		DBM5051			
Thesis I	DBM5161	DBM5061	48	48	6
		DBM5071			
		DBM5011			
		DBM5021			
		DBM5031			
Basic elective 2		DBM5041	48	48	6
		DBM5051			
		DBM5061			
		DBM5071			
		Total	192	192	24

**Fourth term**

List of subjects or learning units	Key	Prerequisite	Hours		Credits (Units)
			With teacher	Independent	
Thesis II	DBM5171	DBM5161	48	48	6
Predoctoral exam	DBM5171	DBM5121	16	16	2
Bioethics	DBM5221		16	0	1
		Total	80	64	9

Fifth term					
List of subjects or learning units	Key	Prerequisite	Hours		Credits (Units)
			With teacher	Independent	
Advanced elective 1			48	48	6
Advanced elective 2			48	48	6
Advanced elective 3			48	48	6
		Total	144	144	18

Sixth term					
List of subjects or learning units	Key	Prerequisite	Hours		Credits (Units)
			With teacher	Independent	
Research seminar I	DBM6041	PTA5011 DBM5131 DBM5171	48	48	6
Thesis III	DBM6091	PTA5011 DBM5131 DBM5171	48	48	6
		Total	96	96	12

Seventh term					
List of subjects or learning units	Key	Prerequisite	Hours		Credits (Units)
			With teacher	Independent	
Research seminar II	DBM6051	DBM6041	48	48	6
Thesis IV	DBM6101	DBM6091	48	48	6
		Total	96	96	12

Eighth term					
List of subjects or learning units	Key	Prerequisite	Hours		Credits (Units)
			With teacher	Independent	
Research seminar III	DBM6061	DBM6051	48	48	6
Thesis V	DBM6111	DBM6101	48	48	6
		Total	96	96	12

Ninth term					
List of subjects or learning units	Key	Prerequisite	Hours		Credits (Units)
			With teacher	Independent	
Research seminar IV	DBM6071	DBM6061	48	48	6
Thesis VII	DBM6121	DBM6111	48	48	6
		Total	96	96	12

Tenth term					
List of subjects or learning units	Key	Prerequisite	Hours		Credits (Units)
			With teacher	Independent	
Research seminar V	DBM6081	DBM6071	48	48	6
Thesis VII	DBM6131	DBM6121	48	48	6
		Total	96	96	12

**Basic elective 1 y 2**

<b>List of subjects or learning units</b>	<b>Key</b>
Obtaining active principles for biotechnology	DBM5181
Pharmaceutical biotechnology	DBM6191
Selected themes in clinical research	DBM5201
Development of clinical studies	DBM5211

**Advanced elective 1, 2, 3**

<b>List of subjects or learning units</b>	<b>Key</b>
Medical systems biology	DBM6141
Genomic medicine	DBM6151
Select themes I	DBM6161
Identification of biological compounds	DBM6171
Nanomedicine	DBM6181
Select themes II	DBM6191
Clinical research	DBM6201
Molecular methods	DBM6211
Select themes III	DBM6221