Special Courses of Master Degree in Pharmaceutical Sciences

Biochemistry Department

1-General Courses :(0600700) (12 cr. h)

2- Specialized Courses: (12 cr. h)

First Semester (6 cr. h)

No.	Course code	Courses	Credit hours	
			L	P
1	0602704	Selected Topics in Physiology	3	--
2	0608701	Enzymology	3	--
Total			**6**	

Second Semester (6 cr. h)

No.	Course code	Courses	Credit hours	
			L	P
3	0608702	Metabolic Disorders	3	--
4		Elective Course	3	--
Total			**6**	

Elective Courses

No.	Course code	Courses	Credit hours	
			L	P
1	0608703	Immunology	3	--
2	0608704	Bioinformatics	3	--

Course Description of Master Degree in Pharmaceutical Sciences

Biochemistry Department

First Semester (6 cr. h)

Course Name	Credit hours		Code No.
	L	P	
Enzymology	3	--	0608701

Description: The course will cover a wide range of subjects such as co-enzymes, classification of enzymes, mechanism and kinetics of enzyme catalyzed reactions. In addition to that, the course will include the production, extraction, purification, characterization and application of enzymes.

Bench mark courses at KTH_Sweden and Uppsala_Sweden universities

- https://www.kth.se/student/kurser/kurs/BB2020?l=en
- http://www.uu.se/en/admissions/exchange/courses/list/course-description/?kKod=1KB424andtyp=1

Second Semester (6 cr. h)

Course Name	Credit hours		Code No.
	L	P	
Metabolic Disorders	3	--	0608702

Description: This course includes detailed clinical correlations with metabolism of different important biomolecules. Inborn errors of metabolism will be also studied together with the application of DNA technology to their study. In addition, genetic aspects of metabolic diseases will be highlighted.

Bench mark courses at Southampton_UK and lund_Sweden universities

- https://www.southampton.ac.uk/courses/modules/biol1022.page
- https://www.lunduniversity.lu.se/lubas/i-uoh-lu-BIMM23

Elective Courses

Course Name	Credit hours		Code No.
	L	P	
Immunology	3	--	0608703
Description: This course will cover the structures and functions of the human immune system. Specifically, the course will cover cells, tissues, and organs of the human immune system. In addition to that, this course will provide the student with an understanding of the principles and mechanisms of the immune system and immune responses in different contexts such as infection, malignancy and immunological disorders. Bench mark courses at Pittsburgh_USA and Manchester_UK universities • https://www.immunology.pitt.edu/graduate/academic-courses • https://www.manchester.ac.uk/study/masters/courses/list/09859/msc-clinical-immunology/course-details/			

Course Name	Credit hours		Code No.
	L	P	
Bioinformatics	3	--	0608704
Description: In this course, students learn fundamental concepts and methods in bioinformatics. It includes a wide range of topics including computational sequence analysis, sequence homology searching and motif finding, gene finding and genome annotation, protein structure analysis and modeling, genomics and SNP analysis, DNA microarrays and gene expression analysis. Bench mark courses at Manchester and Stanford universities • https://www.manchester.ac.uk/study/masters/courses/list/08854/msc-bioinformatics-and-systems-biology/course-details/ • https://online.stanford.edu/courses/biomedin217-translational-bioinformatics			