

قائمة مقررات درجة دكتوراه الفلسفة في العلوم الصيدلانية
قسم الميكروبيولوجيا والمناعة

1- Specialized : (18 cr. h)

١. مقررات تخصصية:

Courses

First Semester (9 cr. h)

No.	Course code	Courses	Credit hours	
			L	P
1	0604801	Seminar I بحث القائي I	3	--
2	0604802	Advanced Immunology and Immunopathology دراسة متقدمة في المناعة والمناعة الباثولوجية	3	--
3		Elective Course مقرر اختياري	3	--
Total			9	

Second Semester

No.	Course code	Courses	Credit hours	
			L	P
4	0604803	Seminar II بحث القائي II	3	--
5	0604804	Advanced Pathogenesis of Infectious Agents دراسة متقدمة عن القدرة الممرضة للكائنات المعدية	3	--
6		Elective Course مقرر اختياري	3	--
Total			9	

Elective Courses

No.	Course code	Courses	Credit hours	
			L	P
1	0604805	Microbiological Quality Control المراقبة الميكروبيولوجية للجودة	3	--
2	0604806	Clinical Microbiology الميكروبيولوجيا الإكلينيكية	3	--
3	0604807	Microbial Biotechnology التكنولوجيا الحيوية الميكروبية	3	--
4	0604808	Environmental Microbiology الميكروبيولوجيا البيئية	3	--

وصف مقررات درجة دكتوراه الفلسفة في العلوم الصيدلانية
قسم الميكروبيولوجيا والمناعة

First Semester (9 cr. h)

Course Name	Credit hours		Code No.
	L	P	
Advanced Immunology and Immunopathology دراسة متقدمة في المناعة والمناعة الباثولوجية	3	--	0604802
<p>Description: Major features of the evolutionary development of innate and adaptive immune systems. The course will integrate molecular, cellular and biochemical events involved in the ontogeny of the lymphoid system and its activation in the immune response. The course will provide an up-to-date understanding of a rapidly moving field.</p> <p>Benchmark: University of Illinois at Chicago (UIC), USA (Course title: MIM 551. Advanced Immunology). Link:</p> <ul style="list-style-type: none"> • https://catalog.uic.edu/gcat/colleges-schools/medicine/mim/mim.pdf 			

Second Semester (9 cr. h)

Course Name	Credit hours		Code No.
	L	P	
Advanced Pathogenesis of Infectious Agents دراسة متقدمة عن القدرة الممرضة للكائنات المعدية	3	--	0604804
<p>Description: Study of the biology and immunological aspects of host-parasite interactions, pathogenicity, epidemiology and molecular aspects of major infectious agents. Emphasis on advanced methods for prevention, diagnosis and treatment of diseases caused by bacteria, viruses, mycoses and parasites.</p> <p>Benchmark: University of Illinois at Chicago (UIC), USA (Course title: MIM 560. Microbial Pathogenesis). Link:</p> <ul style="list-style-type: none"> • https://catalog.uic.edu/gcat/colleges-schools/medicine/mim/mim.pdf 			

Elective Courses

Course Name	Credit hours		Code No.
	L	P	
Microbiological Quality Control المراقبة الميكروبيولوجية للجودة	3	--	0604805
<p>Description: Study of microbiological quality control techniques and instrumentation especially in relation to pharmaceutical manufacturing with emphasis on the requirements of total assurance of pharmaceutical products.</p> <p>Benchmark: The university of Manchester, UK (course title: Quality Assurance in Microbiology Laboratories (PMAT 5)). Link:</p> <ul style="list-style-type: none"> • https://www.manchester.ac.uk/study/masters/courses/list/09123/msc-pharmaceutical-industrial-advanced-training-piat/?pg=2&unit=PHAR71340&unitYear=1 			

Course Name	Credit hours		Code No.
	L	P	
Clinical Microbiology الميكروبيولوجيا الإكلينيكية	3	--	0604806
<p>Description: Principles of hospital acquired infections integration and managements of the host-parasite relationship in terms of transmission, population dynamics, environmental management, immune responses, and safe medical waste disposal to control nosocomial infections.</p> <p>Benchmark: University of Pittsburg, USA (course title: IDM 2038 - PREVENTION, TREATMENT, AND CONTROL OF GLOBAL INFECTIOUS DISEASES). Link:</p> <ul style="list-style-type: none"> • http://www.publichealth.pitt.edu/infectious-diseases-and-microbiology/academics/courses/course-details?cid=177502 			

Course Name	Credit hours		Code No
	L	P	
Microbial Biotechnology التكنولوجيا الحيوية الميكروبية	3	--	0604807
<p>Description: Industrially relevant microbiology, fermentation downstream processing, application of biotechnology for production of pharmaceutically relevant products and recovery of microbial products.</p> <p>Benchmark: Brown University, USA (Course title: Biotechnology in Medicine, BIOL 0170). Link:</p> <ul style="list-style-type: none"> • https://www.brown.edu/academics/molecular-pharmacology-physiology-and-biotechnology/courses 			

Course Name	Credit hours		Code No.
	L	P	
Environmental Microbiology الميكروبيولوجيا البيئية	3	--	0604808
<p>Description: Learning the importance of microorganisms in environmental pollution. Bioremediation and its relationship to natural processes of recycling. The course will cover conventional and new technological developments to eliminate selected environmental pollutants.</p> <p>Benchmark: University of Ottawa, Canada (Course name: MIC 8500 Special Topics in Health- Related Environmental Microbiology). Link:</p> <ul style="list-style-type: none"> • https://catalogue.uottawa.ca/en/graduate/doctorate-philosophy-microbiology-immunology/#Coursestext 			