

قائمة مقررات درجة الماجستير في العلوم الصيدلانية
قسم الميكروبيولوجيا والمناعة

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

١- مقررات عامة:

Courses

2- Specialized : (12 cr. h)

٢- مقررات تخصصية:

Courses

First Semester (5 cr. h)

No.	Course code	Courses	Credit hours	
			L	P
1	0604701	Advanced General Microbiology الميكروبيولوجيا العامة المتقدمة	3	--
2	0604702	Pharmaceutical Microbiology الميكروبيولوجيا الصيدلانية	2	--
Total			5	

Second Semester (7 cr. h)

No.	Course cod	Courses	Credit hours	
			L	P
3	0604703	Antimicrobial Chemotherapeutic Agents مضادات الميكروبات المستخدمة في العلاج	2	--
4	0604704	Advanced Molecular Microbiology الميكروبيولوجيا الجزيئية المتقدمة	3	--
5		Elective course مقرر اختياري	2	--
Total			7	

Elective Courses

No.	Course code	Courses	Credit hours	
			L	P
1	0604705	Protein Expression and Purification إنتاج البروتينات وتنقيتها	2	--
2	0604706	Analysis of Bacterial Genome تحليل الحمض النووي للبكتريا	2	--

وصف مقررات درجة الماجستير في العلوم الصيدلانية
قسم الميكروبيولوجيا والمناعة

First Semester (5 cr. h)

Course Name	Credit hours		Code No.
	L	P	
Advanced General Microbiology الميكروبيولوجيا العامة المتقدمة	3	--	0604701
Description: Study the principles of microbial diversity, physiology and metabolism, microbial genetics and pathogenesis with emphasis on advanced methods for study of pathogenic bacteria. University of Barcelona. Link: • https://www.ub.edu/web/ub/en/estudis/oferta_formativa/master_universitari/fitxa/A/M0Q05/index.html			

Course Name	Credit hours		Code No.
	L	P	
Pharmaceutical Microbiology الميكروبيولوجيا الصيدلانية	2	--	0604702
Description: To understand and apply the fundamentals of pharmaceutical microbiology including principles of sanitation, disinfection, sterilization and aseptic pharmacy. The University of Sydney, Australia. Link: • https://sydney.edu.au/courses/units-of-study/2018/phar/phar5712.html			

Second Semester (7 cr. h)

Course Name	Credit hours		Code No.
	L	P	
Antimicrobial Chemotherapeutic Agents مضادات الميكروبات المستخدمة في العلاج	2	--	0604703
Description: Learn about mechanisms of action of different classes of antimicrobial chemotherapeutic agents. The course will highlight the important events that link basic research to clinical and pharmaceutical application of new drugs. Michigan State University. Link: • https://phmtox.msu.edu/education/courses/phm483/			

Course Name	Credit hours		Code No.
	L	P	
Advanced Molecular Microbiology الميكروبيولوجيا الجزيئية المتقدمة	3	--	0604704
<p>Description: Study of advanced molecular microbiology, the regulation of gene expression, principles of genetic engineering, gene cloning, DNA sequencing, recombinant DNA technology and hybridoma technology. University of Nottingham, UK. Link:</p> <ul style="list-style-type: none"> • https://www.nottingham.ac.uk/pgstudy/courses/biology-biomedical-and-life-sciences/clinical-and-molecular-microbiology-msc.aspx 			

Elective Courses

Course Name	Credit hours		Code No.
	L	P	
Protein Expression and Purification إنتاج البروتينات وتنقيتها	2	--	0604705
<p>Description: This course builds on the student's knowledge and understanding of key and advanced concepts in protein expression and purification technologies to increase his/her ability to design advanced experimental research including processes involved in gene expression and regulation, protein-tagging design and vector selection, protein stability studies and bioinformatic tools to characterize proteins, besides chromatographic techniques specifically used in protein biopharmaceuticals purification. Moreover, the course builds on the student's ability to analyze and interpret data obtained from advanced experimental research</p> <ul style="list-style-type: none"> • https://www.dtu.dk/english/education/msc/programmes/applied-chemistry#study-programme_study-lines_protein-chemistry 			

Course Name	Credit hours		Code No.
	L	P	
Analysis of Bacterial Genome تحليل الحمض النووي للبكتيريا	2	--	0604706
<p>Description: This course builds on the student's basic knowledge of the structure of the genetic material (DNA and RNA) of bacteria and allows the student to investigate whole bacterial genomes. It will also enable the student to use whole genome sequencing (WGS) data for the identification of bacterial species, antimicrobial resistance genes as well as virulence genes. Additionally, the course aims to equip the student with the skills to use WGS data for bacterial typing. The course will acquaint the student with some of the tools available online for the analysis of bacterial genomes.</p> <ul style="list-style-type: none"> • https://www.coursera.org/learn/wgs-bacteria?ranMID=40328&ranEAID=SAyYsTvLiGQ&ranSiteID=SAyYsTvLiGQ-XDUMTlcHCsRNhqd4gy2qNw&siteID=SAyYsTvLiGQ-XDUMTlcHCsRNhqd4gy2qNw&utm_content=10&utm_medium=partners&utm_source=linkshare&utm_campaign=SAyYsTvLiGQ 			