قائمة مقررات درجة دكتوراه الفلسفة في العلوم الصيدلية
قسم الكيمياء الحيوية

١. مقررات تخصصية: 1- Specialized : (18 cr. h) Courses

First Semester (9 cr. h)

No.	Course code	Courses	Credit hours	
			L	P
1	0608801	Seminar 1 بحث إلقائي I	3	--
2	0608802	Biomarkers of Diseases الدلالات الحيوية للأمراض	3	--
3		Elective Course مقرر اختياري	3	--
Total			**9**	

Second Semester (9 cr. h)

No.	Course code	Courses	Credit hours	
			L	P
4	0608803	Seminar II بحث إلقائي II	3	--
5	0608804	Advanced Biochemistry الكيمياء الحيوية المتقدمة	3	--
6		Elective Course مقرر اختياري	3	--
Total			**9**	

Elective Courses

No.	Course code	Courses	Credit hours	
			L	P
1	0608805	Advanced Molecular Biology علم الأحياء الجزيئي المتقدم	3	--
2	0608806	Advanced Pharmacogenomics علم الدواء الوراثي المتقدم	3	--
3	0608807	Molecular Biophysics الفيزياء الحيوية الجزيئية	3	--
4	0609801	Advanced Pharmacokinetics, Modeling and Simulation مقرر متقدم في حركية الدواء ونمذجتها ومحاكاتها	3	--

وصف مقررات درجة دكتوراه الفلسفة في العلوم الصيدلية
قسم الكيمياء الحيوية

First Semester (9 cr. h)

Course Name	Credit hours		Code No.
	L	P	
Seminar 1 **بحث إلقائي I**	3	--	0608801
Description: The student will have to give a seminar about a selected topic in Biochemistry under supervision from the Pharmaceutical Biochemistry department. Bench mark at Stanford university USA • https://teachingcommons.stanford.edu/gallery/seminar			

Course Name	Credit hours		Code No.
	L	P	
Biomarkers of Diseases **الدلالات الحيوية للأمراض**	3	--	0608802
Description: This course describes the molecular and biochemical mechanisms that underlie a number of important human diseases. It includes descriptions of many of the investigative methods to diagnose these diseases and describe how knowledge of diseases processes can lead to new therapeutic approaches and treatments. Bench mark at the university of Sydney Australia. • https://sydney.edu.au/courses/units-of-study/2018/amed/amed3003.html			

Second Semester (9 cr. h)

Course Name	Credit hours		Code No.
	L	P	
Seminar II **بحث إلقائي II**	3	--	0608804
Description: The student will have to give a seminar about a selected topic in Biochemistry under supervision from the Pharmaceutical Biochemistry department Bench mark at Stanford university, USA • https://teachingcommons.stanford.edu/gallery/seminar			

Course Name	Credit hours		Code No.
	L	P	
Advanced Biochemistry **الكيمياء الحيوية المتقدمة**	3	--	0608803
Description: Advanced treatment of selected topics in biochemistry, with readings taken from the current literature. Emphasis on experimental approaches and problem solving. The main themes to be explored are, the advanced theoretical concepts and techniques of biochemistry. Bench mark at Swinburne University Australia • https://www.swinburne.edu.au/study/courses/units/Advanced-Biochemistry-BCH80001/local			

Elective Courses

Course Name	Credit hours		Code No.
	L	P	
Advanced Molecular Biology **علم الأحياء الجزيئي المتقدم**	3	--	0608805
Description: This course will discuss in details advanced topics of molecular biology that is related to research methodologies. This course is aimed at developing knowledge in current and/or leading-edge techniques that are commonly used for research into cell and molecular biology with a focus on human disease. Bench mark at Griffith university, Australia • https://degrees.griffith.edu.au/Course/7308NSC			

Course Name	Credit hours		Code No.
	L	P	
Advanced Pharmacogenomics **علم الدواء الوراثي المتقدم**	3	--	0608806
Description: Pharmacogenomics is the study of how human genetic variation impacts drug response. This course will provide the background to understand the pharmacogenomics, including the methods used in research and the current issues in discovery and implementation of pharmacogenomics. Bench mark at university of Texas, USA • https://sbmi.uth.edu/current-students/catalog-of-courses-bmi/bmi-5331.htm			

Course Name	Credit hours		Code No.
	L	P	
Molecular Biophysics **الفيزياء الحيوية الجزيئية**	3	--	0608807
Description: This course provides a focused study of concepts in thermodynamics, through examples dealing with important problems in molecular biophysics. The applications that will be discussed in details include data analysis, computer modelling, molecules in motion, bioengineering, nanotechnologies, biomaterials, and imaging. Bench mark at Norwegian University of Science and Technology, Norway • https://www.ntnu.edu/studies/courses/TFY4310#tab=omEmnet			