



كلية الصيدلة - جامعة الزيتونة الأردنية
Faculty of Pharmacy
Al-Zaytoonah University of Jordan

" نحو تعليم صيدلاني متميز "
Toward Excellence in Pharmaceutical
Education

جامعة الزيتونة الأردنية
Al-Zaytoonah University of Jordan
كلية الصيدلة
Faculty of Pharmacy



"عراقة وجودة "
"Tradition and Quality"

Course Plan for Bachelor program - Course Plan Development and Updating Procedures/ Pharmacy Department	QF02/0407-3.0E
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Course Plan for Pharmacy (Bachelor Program) No.: (2016/2017)
Approved by Deans Council by decision (09/26/2016) dated (03/08/2016)
(160) Credit Hours

No.	Goals and learning outcomes
Goal 1	Knowledge of chemical sciences related to drug synthesis and pharmacotherapy.
ILO 1.1	The student should be able to: Distinguish all chemical functional groups and to understand the physico-chemical properties of all substances used in pharmaceutical synthesis.
ILO 1.2	Design drugs based on the biological target.
ILO 1.3	Interpret the relationship between the chemical structure of a compound and its pharmacological activity.
GOAL 2	Providing the student with the necessary knowledge in pharmaceutics and pharmacokinetics.
ILO 2.1	The student should be able to: Prepare the medications in the different pharmaceutical dosage forms.
ILO 2.2	Identify the bio-pharmaceutical and pharmacokinetic properties of the various pharmaceutical dosage forms.
ILO 2.3	Identify the methods of pharmaceutical analysis, quality control, and the relevant practices.
GOAL 3	Providing the student with the basics and skills and of using medications in the treatment of diseases.
ILO 3.1	The student should be able to: Communicate with the patients and being familiar with the human body in the context of health and disease statuses, and the diseases' causatives.
ILO 3.2	Properly use the medications according to the priorities, for each pathological case.
ILO 3.3	Achieve maximum therapeutic benefits and reduce medication-related risks to the patient.

Note: G= Goal, ILO= Intended Learning Outcome
Assign 3-7 ILOs for each goal



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Student's information		Course number	Course title	Credit Hours	Theory Hours	Practical Hours	Prerequisite Co-requisite	Advertisement Plan
Registered	passed							Semester/year
First: University Requirements (27) Credit Hours								
a. Mandatory requirement (15 credit hour)								
<input type="checkbox"/>	<input type="checkbox"/>	0420101	Military Sciences	3	3	0		1/2
<input type="checkbox"/>	<input type="checkbox"/>	0420111	Arabic Language (1)	3	3	0	Remedial Arabic Language	1/1
<input type="checkbox"/>	<input type="checkbox"/>	0420121	English Language (1)	3	3	0	Remedial English Language	1/2
<input type="checkbox"/>	<input type="checkbox"/>	0420151	National Education	3	3	0		1/1
<input type="checkbox"/>	<input type="checkbox"/>	0420171	Life Skills	3	3	0		1/1
b. Electives (12 credit hours, minimum 3 credits from each field)								
Field I. Humanitarian courses								
<input type="checkbox"/>	<input type="checkbox"/>	0420103	History of Jerusalem	3	3	0		1/2
<input type="checkbox"/>	<input type="checkbox"/>	0420112	Islamic Culture	3	3	0		2/2
<input type="checkbox"/>	<input type="checkbox"/>	0420131	Principles of Education	3	3	0		1/2
<input type="checkbox"/>	<input type="checkbox"/>	0420134	Sport and Health	3	2	2		2/2
<input type="checkbox"/>	<input type="checkbox"/>	0420142	Human Civilization	3	3	0		1/2
<input type="checkbox"/>	<input type="checkbox"/>	0420152	Introduction to Sociology	3	3			2/2
<input type="checkbox"/>	<input type="checkbox"/>	0501100	Innovation and Entrepreneurship in Business	3	3	0		2/2
<input type="checkbox"/>	<input type="checkbox"/>	0601102	Law in Our Life	3	3	0		1/2
Field II. Scientific course								
<input type="checkbox"/>	<input type="checkbox"/>	0120111	Information Technology and Society	3	3	0	Remedial Computer Skills	1/2
<input type="checkbox"/>	<input type="checkbox"/>	0120153	Medicinal Plants	3	3	0		1/2
<input type="checkbox"/>	<input type="checkbox"/>	0301101	First Aid	3	3	0		1/2
<input type="checkbox"/>	<input type="checkbox"/>	0301102	Fundamental of Nutrition	3	3	0		2/2
<input type="checkbox"/>	<input type="checkbox"/>	0906100	Principles of Energy Science	3	3	0		2/2



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Registered	passed							(Semester/Year)
Second: Faculty Requirements (25) Credit Hours								
<input type="checkbox"/>	<input type="checkbox"/>	0120141	General chemistry	3	3	0	* Biology+* Calculus for pharmacy	1/1
<input type="checkbox"/>	<input type="checkbox"/>	0120142	General chemistry lab	1	0	3	* General chemistry	1/1
<input type="checkbox"/>	<input type="checkbox"/>	0120151	Biology	3	3	0	* General chemistry+ *Calculus for pharmacy	1/1
<input type="checkbox"/>	<input type="checkbox"/>	0120152	Biology lab	1	0	3	* Biology	1/1
<input type="checkbox"/>	<input type="checkbox"/>	0120224	Calculus for pharmacy	3	3	0	* General chemistry+ *Biology	1/1
<input type="checkbox"/>	<input type="checkbox"/>	0120135	General physics for pharmacy	2	2	0	* Calculus for pharmacy	2/1
<input type="checkbox"/>	<input type="checkbox"/>	0201112	Pharmaceutical organic chemistry 1	3	3	0	General chemistry	2/1
<input type="checkbox"/>	<input type="checkbox"/>	0201131	Anatomy & histology	2	2	0	Biology	2/1
<input type="checkbox"/>	<input type="checkbox"/>	0201132	Anatomy & histology lab	1	0	3	Biology lab + * Anatomy & histology	2/1
<input type="checkbox"/>	<input type="checkbox"/>	0201233	Physiology 1	2	2	0	Anatomy & histology	1/2
<input type="checkbox"/>	<input type="checkbox"/>	0201234	Physiology lab	1	0	3	Anatomy & histology lab + * Physiology 2	2/2
<input type="checkbox"/>	<input type="checkbox"/>	0201235	Physiology 2	2	2	0	Physiology 1	2/2
<input type="checkbox"/>	<input type="checkbox"/>	0201544	Legislation & pharmaceutical ethics	1	1	0	Therapeutics & clinical pharmacy -1-	2/5
Third: Major Requirements (108) Credit Hours as follows:								
a. Mandatory Major Requirements (99) Credit Hours								
<input type="checkbox"/>	<input type="checkbox"/>	0201111	Physical pharmacy	2	2	-	General chemistry+ Calculus+ * General Physics	2/1
<input type="checkbox"/>	<input type="checkbox"/>	0201212	Pharmaceutical organic chemistry lab	1	-	3	General chemistry lab+ * Pharmaceutical organic chemistry 2	1/2
<input type="checkbox"/>	<input type="checkbox"/>	0201213	Pharmaceutical analytical chemistry	3	3	-	Physical pharmacy	1/2
<input type="checkbox"/>	<input type="checkbox"/>	0201214	Pharmaceutical analytical chemistry lab	1	-	3	General chemistry lab + *Pharmaceutical analytical chemistry	1/2
<input type="checkbox"/>	<input type="checkbox"/>	0201215	Pharmacognosy	2	2	-	Pharmaceutical organic chemistry 1 + Biology	1/2
<input type="checkbox"/>	<input type="checkbox"/>	0201216	Pharmaceutical organic chemistry 2	3	3	-	Pharmaceutical organic chemistry 1	1/2
<input type="checkbox"/>	<input type="checkbox"/>	0201217	Instrumental analysis	3	3	-	Pharmaceutical analytical chemistry + Pharmaceutical organic chemistry 2	2/2
<input type="checkbox"/>	<input type="checkbox"/>	0201218	Instrumental analysis lab	1	-	3	Pharmaceutical organic chemistry lab + *Instrumental analysis + Pharmaceutical analytical chemistry lab	2/2
<input type="checkbox"/>	<input type="checkbox"/>	0201221	Pharmaceutics 1	3	3	-	Pharmaceutical analytical chemistry + Physical pharmacy	2/2
<input type="checkbox"/>	<input type="checkbox"/>	0201236	Pharmaceutical microbiology 1	2	2	-	Physiology 1	2/2
<input type="checkbox"/>	<input type="checkbox"/>	0201313	Pharmaceutical biochemistry	3	3	-	Pharmaceutical organic chemistry 2 + Physiology 2	1/3
<input type="checkbox"/>	<input type="checkbox"/>	0201314	Pharmaceutical biochemistry lab	1	-	3	Pharmaceutical organic chemistry lab + *Pharmaceutical biochemistry	1/3
<input type="checkbox"/>	<input type="checkbox"/>	0201317	Phytochemistry	3	3	-	Pharmacognosy + Instrumental analysis	2/3
<input type="checkbox"/>	<input type="checkbox"/>	0201316	Phytochemistry lab	1	-	3	Instrumental analysis lab + *Phytochemistry	2/3



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<input type="checkbox"/>	<input type="checkbox"/>	0201318	Medicinal Chemistry 1 and drug design	3	3	-	Pharmaceutical organic chemistry 2 + * Pharmacology 1	2/3
<input type="checkbox"/>	<input type="checkbox"/>	0201326	Pharmaceutics 2	2	2	-	Pharmaceutics 1	1/3
<input type="checkbox"/>	<input type="checkbox"/>	0201327	Pharmaceutics and pharmaceutical calculations lab	1	-	3	*Pharmaceutics 2	2/3
<input type="checkbox"/>	<input type="checkbox"/>	0201328	Pharmaceutics 3	2	2	-	Pharmaceutics 2	2/3
<input type="checkbox"/>	<input type="checkbox"/>	0201329	Pharmaceutics and pharmaceutical compounding lab	1	-	3	Pharmaceutics and pharmaceutical calculation lab + * Pharmacology 3	2/3
<input type="checkbox"/>	<input type="checkbox"/>	0201332	Pharmaceutical microbiology lab	1	-	3	Pharmaceutical microbiology 1 + *Pharmaceutical microbiology 2	1/3
<input type="checkbox"/>	<input type="checkbox"/>	0201333	Pathophysiology	2	2	-	Physiology 2	1/3
<input type="checkbox"/>	<input type="checkbox"/>	0201334	Pathophysiology lab	1	-	3	Physiology lab + *Pathophysiology	1/3
<input type="checkbox"/>	<input type="checkbox"/>	0201335	Pharmacology 1	3	3	-	Pathophysiology	2/3
<input type="checkbox"/>	<input type="checkbox"/>	0201336	Immunology	2	2	-	Pharmaceutical microbiology 2 + * Pharmacology 1	2/3
<input type="checkbox"/>	<input type="checkbox"/>	0201337	Pharmaceutical microbiology 2	2	2	-	Pharmaceutical microbiology 1	1/3
<input type="checkbox"/>	<input type="checkbox"/>	0201413	Clinical biochemistry	2	2	-	Pharmaceutical biochemistry	1/4
<input type="checkbox"/>	<input type="checkbox"/>	0201414	Medicinal chemistry 2	3	3	-	Medicinal chemistry 1 and drug design + *pharmacology 2	1/4
<input type="checkbox"/>	<input type="checkbox"/>	0201415	Medicinal chemistry lab	1	-	3	Pharmaceutical organic chemistry lab + *Medicinal chemistry 2	1/4
<input type="checkbox"/>	<input type="checkbox"/>	0201416	Medicinal chemistry 3	3	3	-	*Pharmacology 3 + Medicinal chemistry 2	2/4
<input type="checkbox"/>	<input type="checkbox"/>	0201421	Biopharmaceutics & pharmacokinetics	3	3	-	Pharmaceutics 3 + Pharmacology 1	1/4
<input type="checkbox"/>	<input type="checkbox"/>	0201422	Biopharmaceutics & pharmacokinetics lab	1	-	3	Pharmaceutics and pharmaceutical compounding lab + *Biopharmaceutics & pharmacokinetics	1/4
<input type="checkbox"/>	<input type="checkbox"/>	0201423	Industrial pharmacy	3	3	-	Pharmaceutics 3	2/4
<input type="checkbox"/>	<input type="checkbox"/>	0201426	Cosmetics preparation	2	2	-	Pharmaceutics 3	2/4
<input type="checkbox"/>	<input type="checkbox"/>	0201431	Pharmacology 2	3	3	-	Pharmacology 1	1/4
<input type="checkbox"/>	<input type="checkbox"/>	0201432	Pharmacology lab	1	-	3	Pathophysiology lab + *Pharmacology 2	1/4
<input type="checkbox"/>	<input type="checkbox"/>	0201433	Pharmacology 3	3	3	-	Pharmacology 2 + Pharmaceutical microbiology 1	2/4
<input type="checkbox"/>	<input type="checkbox"/>	0201434	Toxicology	2	2	-	Pharmacology 2	2/4
<input type="checkbox"/>	<input type="checkbox"/>	0201435	Toxicology lab	1	-	3	Pharmacology lab + *Toxicology	2/4
<input type="checkbox"/>	<input type="checkbox"/>	0201442	Homeopathic remedies	2	2	-	Phytochemistry	1/4
<input type="checkbox"/>	<input type="checkbox"/>	0201521	Professional pharmacy practice 1	1	-	3	Pharmacology 3	1/5
<input type="checkbox"/>	<input type="checkbox"/>	0201523	Pharmacoeconomics	2	2	-	Therapeutics & clinical pharmacy 1	2/5
<input type="checkbox"/>	<input type="checkbox"/>	0201524	Professional pharmacy practice 2	1	-	3	Professional pharmacy practice 1	2/5
<input type="checkbox"/>	<input type="checkbox"/>	0201531	Therapeutics & clinical pharmacy 1	3	3	-	Clinical Biochemistry + Biopharmaceutics & pharmacokinetics + Pharmacology 3	1/5
<input type="checkbox"/>	<input type="checkbox"/>	0201535	Therapeutics & clinical pharmacy 2	3	3	-	Therapeutics & clinical pharmacy 1	2/5
<input type="checkbox"/>	<input type="checkbox"/>	0201536	Clinical pharmacy lab-2 (hospital)	1	-	3	Therapeutics & clinical pharmacy 1 + *Therapeutics & clinical pharmacy 2	2/5
<input type="checkbox"/>	<input type="checkbox"/>	0201541	Pharmaceutical technology	3	3	-	Industrial pharmacy	1/5
<input type="checkbox"/>	<input type="checkbox"/>	0201542	Pharmaceutical	1	-	3	Pharmaceutics and	1/5



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		technology lab				pharmaceutical compounding lab + * Pharmaceutical technology	
<input type="checkbox"/>	<input type="checkbox"/>	0201543 Pharmaceutical marketing	2	2	-	Therapeutics & clinical pharmacy 1	2/5
<input type="checkbox"/>	<input type="checkbox"/>	0201545 Pharmaceutical biotechnology	3	3	-	Immunology + *Pharmaceutical technology	1/5
b. Major supporting requirements (---) credit hours							
<input type="checkbox"/>	<input type="checkbox"/>	-	-	-	-	-	-
c. Major Electives (9) Credit Hours							
<input type="checkbox"/>	<input type="checkbox"/>	0201451 Clinical nutrition	3	3	-	Clinical biochemistry	2/4
<input type="checkbox"/>	<input type="checkbox"/>	0201452 Pharmaceutical communication skills	3	3	-	Pharmacology 1	2/4
<input type="checkbox"/>	<input type="checkbox"/>	0201453 Pharmaceutical biostatistics	3	3	-	Pharmacology 2	2/4
<input type="checkbox"/>	<input type="checkbox"/>	0201551 Quality control	3	3	-	*Pharmaceutical technology	1/5
<input type="checkbox"/>	<input type="checkbox"/>	0201553 Clinical toxicology	3	3	-	Toxicology	1/5
<input type="checkbox"/>	<input type="checkbox"/>	0201554 Selected topics in pharmacology	3	3	-	Pharmacology 3	1/5
<input type="checkbox"/>	<input type="checkbox"/>	0201557 Drug delivery systems	3	3	-	Pharmaceutical technology	2/5
<input type="checkbox"/>	<input type="checkbox"/>	0201558 Special topics in medicinal chemistry	3	3	-	Medicinal chemistry 3	1/5
<input type="checkbox"/>	<input type="checkbox"/>	0201559 Gene and protein therapy	3	3	-	Pharmaceutical Biotechnology	2/5

Fourth: free electives (0) Credit Hours

(Student may choose any course from any course plan at the university unless the student had passed it previously)

❖ Co-requisite

*Simultaneously

Courses Given to Other Majors)

Course number	Course title	Credit hours	Type of requirement (University Requirements, Faculty Requirements, Supporting Requirements)
0201161	Anatomy & Histology for Nursing	3	Supporting requirement for nursing
0201162	Physiology for Nursing	3	Supporting requirement for nursing
0201263	Microbiology for Nursing	2	Faculty requirement for nursing
0201261	Pathophysiology for Nursing	3	Faculty requirement for nursing
0201163	Biochemistry for Nursing	2	Faculty requirement for nursing
0201262	Pharmacology for Nursing	3	Supporting requirement for nursing
0201143	General Chemistry for engineering	3	Supporting requirement for civil engineering and infrastructure, and mechanical engineering
0201144	Practical General Chemistry for engineering	1	Supporting requirement for civil engineering and infrastructure, and mechanical engineering