



Program study plan for Associate diploma in Pharmacy

This study plan was approved by the Deans Council of Al-Balqa Applied University, decision number 1706/2016/2017 at 30-8-2017 during session 33. It applies from the beginning of the academic year 2017/2018, as it was approved to amend it according to decision number 10/2/2017/2018 of the Study Plan Committee at 4/10/2017 during session 2.

This study plan to obtain an associate diploma in Allied Medical Professions Programs / Specialization in Pharmacy consisting (72) credit hours, distributed as follows:

Number	Requirement	Credit Hours
First	General Competencies	12
Second	Functional Competencies	6
Third	Supportive Competencies	6
Fourth	Specialty Competencies	48
Total		72



Description of program outputs:

The specialization aims to prepare pharmacist technicians who are able to provide effective and safe drug services to patients, as well as having the ability to provide advice and recommendations regarding the treatment and medication plan that suits each patient and his health condition.

Specialization fields for program skills:

Number	Specialization field	Credit hours		Courses within the field
		Theory	Practical	
1.	Allied Medical Sciences	13	2	Anatomy / Physiology / Pathophysiology / Microbiology and First Aid
2.	Pharmaceutics	7	7	Pharmaceutics 1+2+3, theory and practical + Pharmaceutical Quality Control
3.	Pharmacology	8	4	Organic Chemistry/ Pharmacology 1+2+3
4.	Medical Pharmacognosy	4	0	Pharmacognosy / Toxicology
5.	Field Training	0	3	
Total Credit Hours		32	16	48 credit hours



Firstly, general competencies with (12) credit hours distributed as follows:

Number	Course Name	Credit hours	Theoretical	Practical	Prerequisite
020000111	Positive citizenship and life skills	3	3	0	
020000121	Islamic Culture	3	3	0	
020000131	National Education	2	2	0	
020000181	Military science	1	1	0	
020000101	Language skills/ English	3	3	0	
Total Credit Hours		12	12	0	

Secondly, functional competencies with (6) credit hours distributed as follows:

Number	Course Name	Credit hours	Theoretical	Practical	Prerequisite
020000122	Communication skills in English	2	2	0	
020000231	Entrepreneurship	2	2	0	
020000141	Health, safety and occupational environment	2	2	0	
Total Credit Hours		6	6	0	

Thirdly, supportive competencies with (6) credit hours distributed as follows:

Number	Course Name	Credit hours	Theoretical	Practical	Prerequisite
020800161	Biochemistry	2	2	0	
020800162	Biochemistry Practical	1	0	3	020800161**
020800271	Medical Sociology	3	3	0	
Total Credit Hours		6	5	1	



Fourthly, speciality competencies with (48) credit hours distributed as follows:

Number	Course Name	Credit hours	Theoretical	Practical	Prerequisite
020800131	Anatomy	3	3	0	
020800141	Physiology	3	3	0	020800131**
020800211	Pathophysiology	3	3	0	020800141
020802111	Microbiology	3	2	3	
020805111	Organic Chemistry	3	2	3	
020805121	Pharmacology 1	3	2	3	
020805221	Pharmacology 2	3	2	3	020805121
020805222	Pharmacology 3	3	2	3	020805221
020805131	Pharmaceutics 1	2	2	0	
020805231	Pharmaceutics 2	2	2	0	020805131
020805233	Pharmaceutics 3	2	2	0	020805231
020805132	Pharmaceutics 1 Practical	2	0	6	020805131**
020805232	Pharmaceutics 2 Practical	2	0	6	020805231**
020805234	Pharmaceutics 3 Practical	2	0	6	020805233**
020/05241	Pharmacognosy	2	2	0	
020805251	Pharmaceutical Quality Control	2	1	3	
020800111	First Aid	3	2	3	
020805261	Toxicology	2	2	0	020805121
020805291	Field Training	3	0	0	
Total Credit Hours		48	32	16	



Guidance plan for specialization of Pharmacy

First semester			Second semester		
Course name	Course number	Credit hours	Course name	Course number	Credit hours
Positive citizenship and life skills	020000111	3	Communication Skills in English	020000122	2
Health, safety and occupational environment	020000141	2	Organic Chemistry	020805111	3
Language skills/ English	020000101	3	Islamic Culture	020000121	3
Anatomy	020800131	3	Military Science	020000181	1
Physiology	020800141	3	Microbiology	020802111	3
Pharmaceutics 1	020801112	2	First Aid	020800111	3
Pharmaceutics 1 Practical	020801131	2	Pharmacology 1	020805121	3
Total credit hours		18	Total credit hours		18

Third semester			Fourth semester		
Course name	Course number	Credit hours	Course name	Course number	Credit hours
Medical Sociology	020800271	3	Entrepreneurship	020000231	2
Biochemistry	020800161	2	Pharmaceutics 3	020801241	2
Biochemistry Lab	020800162	1	Pharmaceutics 3 Practical	020801251	2
Pathophysiology	020800211	3	Toxicology	020801242	2
Pharmacology 2	020805221	3	Pharmacology 3	020801162	3
Pharmaceutics 2	020805231	2	Pharmacognosy	020801232	2
Pharmaceutics 2 Practical	020805232	2	Field training	020801291	3
Pharmaceutical Quality Control	020805251	2	National Education	020000131	2
Total credit hours		18	Total credit hours		18



Description for specialized skills:

Anatomy 020800131 (3:3-0)

This course presents a systematic approach to the study of the human body for the allied health students. It develops a basic understanding of the structure of body organs and systems and their interactions. Also, it enhances students understanding of the human body in health and disease.

Physiology 020800141 (3: 3-0)

This comprehensive course provides the students with a high level of understanding of the functions performed by the various parts and organs of the human body. Physiology mechanisms of body function are presented at various levels of organization. Emphasis is placed on understanding the integrated regulation of various body processes among the major systems.

Pathophysiology 020800211 (3: 3-0)

This course provides an in-depth study of human pathological processes and their effects on homeostasis. Associated pathologies of the body systems and general health management of disease across the human lifespan is explored. This course focuses on clinical decision making and action related to nursing care.

Microbiology 020802111 (3: 2-3)

The course introduces the students into the whiteness of microbiology with an emphasis on its general classifications. Other topics such as bacteriology, host parasite relationship, virology, mycology, principles of disease and epidemiology are explored. Moreover, it deals with the management of the collection, transportation, preservation and disposal of samples, and how the results are reported and recorded.

Pharmacology 1 020805121 (3: 2-3)

To study, identify and practice drugs (their specifications, effects, mechanism of action, side effects, precaution, toxicity) role in treatment and diagnosis of drugs.

Including drugs effecting Autonomic Nervous system, cardiovascular system (Hypotensive agents, anti-Angina pectoris, Anti Arrhythmias, Anticoagulants, homeostatic agents, hypolipidimics, heart failure drugs).

Pharmacology 2 020805221 (3: 2-3)

To study, identify and practice drugs (their mechanism of action, therapeutics pharmacological effects, precaution, side effect, toxicity) of central nervous system, respiratory system, gastrointestinal drugs, histamines and antihistamines, dermatology drugs and nutrients (Vitamins and minerals).

Pharmacology 3 020805222 (3: 2-3)

To study and practice drugs (their mechanism of action, therapeutics pharmacological effects, medical indications, side effects, precaution, toxicity) of chemotherapy, Antibiotics, Anti T. B, Anti-cancer, Anti amoebic, Anti-malarial, Anthelmintics, endocrine system, and reproductive



system.

Pharmaceutics 1 020805131 (2: 2-0)

Introduction to pharmaceutics and its definitions, Drug prescription and its contents, calculations, pharmaceutical measurements, weighing and measuring volumes; studying the three phases of matters (solid, liquid, gas), properties & specification of each phase, biological and dynamical pharmacy.

Pharmaceutics 2 020805231 (2: 2-0)

The course deals with Pharmaceutical (liquid, gas) dosage forms including the properties & Specification of each phase, their deterioration features.

Pharmaceutics 3 020805233 (2: 2-0)

To study semi solid and solid pharmaceutical dosage forms. Also, the course deal with drug incompatibilities.

Pharmaceutics 1/ practical 020805132 (2: 0-6)

It is a practical course includes drug prescription and its contents, calculations, pharmaceutical measurements, weighing and measuring volumes.

Pharmaceutics 2/ practical 020805232 (2: 0-6)

It is a practical course includes preparation of liquid dosage forms (solutions, syrups, spirits, tinctures) emulsions, eye drops, ear drop and lotions.

Pharmaceutics 3 / practical 020805234 (2: 0-6)

It is a practical course includes preparing semi solid dosage forms such as liniments, pasts, ointments, creams, suppositories, and solid dosage forms such as dusting powders, effervescent powder, granules, and lozenges.

Organic Chemistry 020805111 (3: 2-3)

This course aimed to understand the most important functional group in organic compounds, their nomenclature, chemical reactions, identification, and the differences between their properties and how they react with each other, practice part aimed to know some techniques in organic chemistry like (separation, purification and organic synthesis)

Pharmacognosy 020805241 (2: 2-0)

Definition, history, and scope of medicinal plants, studying plants of medicinal importance, medical plants name, family, used parts, systems of medical plants classification, active ingredients and clinical uses.

Pharmaceutical Quality Control 020805251 (2: 1-3)

To study drug, stability, analysis, packaging, and labeling. Also, the course deals with bases of good manufacturing practice.

First Aids 020800111 (3: 2-3)

This course is designed to introduce the student into emergency medical care providing him with the knowledge and skills that make him able to do patient assessment and choose first Aid priorities and the more suitable instruments which allow him to manage Airway Obstruction, shock and bleeding, soft-Tissue injuries (wounds), soft tissue Injuries (Burns) trauma and fractures, medical emergency (Allergies Reaction) and medical emergency (Poisoning) and, environmental emergency, and altered mental status, it also introduces him to the skills needed



for doing CPR.

Toxicology 020805261 (3: 3-0)

A teaching course which deals with poisoning and types of materials which may lead to toxicity either drugs, chemicals, synthetic products, natural poisons, and the suitable antidotes.

Field Training 020805291 (3: 8 weeks training)

A training course in which the student practice pharmacy profession.

The scope of pharmacy practice includes controlling inventory, compounding, dispensing medications, and patient education.