

المخرجات التعليمية و المهارات و الكفايات للبرنامج الأكاديمي وارتباطها بمواد الخطة
الدراسية

قسم الصيدلة

Program Intended Learning Outcomes

A) Knowledge and Understanding

- K:(1) Posses Knowledge in general medical and pharmaceutical science , pharmacology and pharmacy practice.
- K:(2) Identify the applicability of the acquired knowledge in all pharmacy – related fields
- K:(3)Recognize the principles of scientific research

B) Intellectual skills

- I (1): Develop critical thinking processes to formulate, analyse and dispense medications successfully.
- I :(2): Reflect on information in hand be able to integrate , synthesize and evaluate pharmaceutical data
- I (3):Critically evaluate and analyze pharmaceutical evidence-based data obtained from different resources

C) General and Transferable Skills

- T(1): Engage in pharmacy and medication related public health programs.
- T (2): Communicate effectively with patient as well as health care professionals
- T (3): Appraise the need for continuing professional development and life-long in pharmacy.
- T (4): Acquire good time management and organizational skills.

D) Professional and Practical Skills

- P (1): Employ theoretical pharmaceutical sciences in good pharmacy practice.
- P :(2) Apply practical techniques in all branches of pharmaceutical sciences to formulate, analyze and evaluate pharmaceutical products.
- P :(3) Utilize pharmaceutical information management systems to access information and provide services.

University of Petra- Faculty of Pharmacy and Medical Sciences- Pharmacy Department- Competencies

1- Competencies related to having foundational knowledge (Learner)

- To have the necessary knowledge required to practice

2- Competencies related to providing pharmaceutical care: (Caregiver, Manager, Promoter, Provider, Problem solver, Educator, Advocate, Collaborator, Includer, Communicator)

- Reading prescriptions and analyzing all patient's related information regarding his disease and treatments, for the purpose of determining and resolving or preventing any actual or potential drug and disease related problems. And using his/her best knowledge to choose the best treatment that will provide the best outcome.
- Providing pharmaceutical counseling regarding the disease and the symptoms, the expected benefit of the medication and the expected side effects, how to deal with them if they happen them and how to prevent them. In addition to counseling regarding the importance of adherence to medication administration Instructions.
- Application of the principles of good management and effective leadership in various pharmaceutical institutions.
- Pharmaceutical marketing skills.
- Familiarity with the ethics of practice of the pharmacy profession.
- Familiarity with pharmaceutical legislation and legal responsibility.
- Educating various members of the community and other health care personnel on the optimal use of medication and best practices for disease prevention.

3- Competencies related to pharmaceutical formulations and the pharmaceutical industry: (Manufacturer)

- Knowledge of physicochemical properties of pharmaceutical formulations.
- Formulating and dispensing of different pharmaceutical dosage forms.
- Being able to do pharmaceutical calculations, and different pharmaceutical analysis (Chemical, physical and microbial).

- Knowledge of principles of pharmaceutical quality assurance and good manufacturing practices (GMP).
- Knowledge of manufacturing operations related to the different pharmaceutical formulations.
- Knowledge of basic principles of drug development.

4- Competencies related to professional and personal development: (Self-aware, Leader, Innovator, Professional)

- Ability to search for accurate and scientific information and the ability to conduct scientific research.
- The ability to communicate with different groups of society, including patients, health care providers, and the general public.
- Time management and prioritization skills.

AQACHEI Pharmacy Competencies

Knowledge area	Competency	Outcome
Foundational Knowledge	Learner	1.2. Develop, integrate, and apply knowledge from the foundational sciences (i.e., pharmaceutical, social/behavioral/administrative, and clinical sciences) to evaluate the scientific literature, explain drug action, solve therapeutic problems, and advance population health and patient centered care.
Essentials for Practice and Care	2.1 Caregiver	2.1. Patient-centered Care care - Provide patient centered care as the medication expert (collect and interpret evidence, prioritize, formulate assessments and recommendations, implement, monitor and adjust plans, and document activities).
	2.2 Manager	2.2. Medication use system management Manage patient healthcare needs using human, financial, technological, and physical resources to optimize the safety and efficacy of medication use systems
	2.3. Promoter	2.3. Health and wellness - Design prevention, intervention, and educational strategies for individuals and communities to manage chronic disease and improve health and wellness.
	2.4. Provider	2.4. Population-based care (Provider) - Describe how population-based care influences patient

		centered care and influences the development of practice guidelines and evidence-based best practices.
Approach to Practice and care	3.1 Problem solver	3.1. Problem Solving– Identify problems; explore and prioritize potential strategies; and design, implement, and evaluate a viable solution.
	3.2. Educator	3.2. Educator Educate all audiences by determining the most effective and enduring ways to impart information and assess understanding
	3.3. Advocate	3.3. Patient advocacy Assure that patients’ best interests are represented.
	3.4. Collaborator	3.4. Interprofessional collaboration – Actively participate and engage as a healthcare team member by demonstrating mutual respect, understanding, and values to meet patient care needs.
	3.5. Includer	3.5. Cultural sensitivity - Recognize social determinants of health to diminish disparities and inequities in access to quality care.
	3.6. Communicator	3.6. Communication Effectively communicate verbally and nonverbally when interacting with an individual, group, or organization.
Personal and Professional Development	4.1. Self-aware	4.1. Self-awareness– Examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth.

	4.2. Leader	4.2. Leadership- Demonstrate responsibility for creating and achieving shared goals, regardless of position.
	4.3. Innovator	4.3. Innovation and Entrepreneurship- Engage in innovative activities by using creative thinking to envision better ways of accomplishing professional goals.
	4.4. Professional	4.4. Professionalism - Exhibit behaviors and values that are consistent with the trust given to the profession by patients, other healthcare providers, and society.
Pharmaceutical Product Expert	5.1. Manufacturer	5.1. Carries out compounding procedures to produce an effective and safe medicine (Compounder) and implements quality control measures and tests (Quality Manager).

Matrix – How competencies of FPMS match to AQACHEI competencies, PILO and individual courses. I.E how competencies and skills are developed throughout the curriculum

UOP competencies		Foundational knowledge	Providing pharmaceutical care										Professional and Personal development				Pharmaceutical formulation and the pharmaceutical industry
AQACHEI Competencies		Foundational knowledge	Essentials for practice and care				Approach to practice and care						Personal and professional development				Pharmaceutical Product Expert
PILO		Learner x	Caregiver	Manager	Promotor	Provider	Problem solver	Educator	Advocate	Collaborator	Includer	Communicator	Self-aware	Leader	Innovator	Professional	Manufacturer
	K1	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	K2	x	x			x	x	x	x	x					x	x	x
	K3	x					x	x	x	x					x		x
	I1	x													x		x
	I2		x	x		x	x	x	x						x		x
	I3		x	x	x	x	x	x	x							x	x
	T1		x			x		x	x								
	T2		x	x	x	x	x	x	x	x	x				x	x	
	T3			x	x			x	x	x			x	x		x	
	T4		x		x	x		x	x					x			x
	P1		x			x										x	x
	P2														x	x	x
	P3		x	x		x	x	x	x	x						x	

Subjects	knowledge and understanding			Intellectual Skills			General And Transferable Skills				Professional and Practice Skills		
	k1	k2	k3	I1	I2	I3	T1	T2	T3	T4	P1	P2	P3
Pharmaceutical Analytical Chemistry	X	X		X									
Pharmaceutical Organic Chemistry		X			X								
Pharmaceutical Organic Chemistry- Practical		X										X	
Biochemistry	X	X	X	X									
Phytochemistry and Pharmacognosy 1	X	X		X									
Pharmaceutics	X				X								
Pharmaceutics - Practical				X							X		
Medicinal Chemistry 1	X	X		X	X								
Pharmaceutical dosage forms, compounding and calculations	X			X								X	
Pharmaceutical dosage forms, compounding and -calculations Practical	X			X								X	
Phytochemistry and Pharmacognosy 2	X	X		X			X				X		

Subjects	knowledge and understanding			Intellectual Skills			General And Transferable Skills				Professional and Practice Skills		
	k1	k2	k3	I1	I2	I3	T1	T2	T3	T4	P1	P2	P3
Pharmaceutical Marketing	X			X	X		X				X		
Biology	X	X		X									
Biology Practical	X	X		X	X						X		
Anatomy and Physiology 1	X			X			X				X		
Anatomy and Physiology 2	X			X			X				X		
Anatomy and Physiology- Practical	X	X		X			X				X		
Pathophysiology	X			X									
Microbiology	X			X									
Microbiology - Practical	X			X							X		
Pharmacology 1	X			X									
Pharmacology 2	X			X									
Pharmacology 3	X					X							
Pharmacology 3- Practical	X					X	X				X		
Clinical Biochemistry and Clinical Nutrition	X			X							X		
Immunology	X						X				X		
Drug Informatics and Public Health	X	X		X			X						

Subjects	knowledge and understanding			Intellectual Skills			General And Transferable Skills				Professional and Practice Skills		
	k1	k2	k3	I1	I2	I3	T1	T2	T3	T4	P1	P2	P3
Pharmaceutical Biotechnology	X										X		
Pharmaceutical Biotechnology-Practical	X										X		
Therapeutics 1	X	X		X	X	X							
Therapeutics 2	X	X		X	X	X							
Therapeutics 3	X	X		X	X	X							
Clinical Cases - Practical	X			X	X	X					X		
Non-Prescription Drugs	X			X			X	X					
Pharmacy Practice 1-Practical	X			X	X	X	X	X			X	X	X
Pharmacy Practice 2-Practical	X			X	X		X				X		
Pharmaceutical Training 1	X			X		X	X	X			X	X	
Pharmaceutical Training 2	X	X		X			X	X	X	X	X	X	
Clinical Toxicology	X						X						
Ethics	X	X		X			X						
Pharmacoeconomics	X	X		X	X		X				X		

