

Table(7)

Semester (7)

Course Title	Course Code	Credit Hours			Prerequisite	Examination Marks				Total Marks	Final Exam. Hours
		Lect.	Pract./tut	Total		Period.	Pract.	Wr.	Oral		
Medicinal Chemistry-III	PC 703	2	-	2	Medicinal Chemistry-I	15	--	75	10	100	2
Quality Control of Pharmaceuticals	PA 704	2	1	3	Pharmaceutical Analytical Chemistry-II	20	40	75	15	150	2
Clinical Biochemistry	PB 704	2	1	3	Biochemistry-II	20	40	75	15	150	2
Biopharmaceutics and Pharmacokinetics	PT 707	2	1	3	Pharmaceutical dosage forms III	20	40	75	15	150	2
Clinical Pharmacy	PP 703	2	1	3	Pharmacology I	20	40	75	15	150	2
Drug Information	PP 704	2	-	2	Pharmacology-III	15	--	75	10	100	2
Elective Course	PE --	1	1	2	Registration	15	25	50	10	100	1
Total		13	5	18						900	

- *Lect.* = Lecture
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- *Pract.* = Practical
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إدارة برنامج الصيدلة الإكلينيكية - المبنى الإداري الدور الخامس - كلية الصيدلة (ت داخلي: ١٢٨٢) ، (ت: ٢٤١١٢٨٢)

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Table (8)

Semester (8)

Course Title	Course Code	Credit Hours			Prerequisite	Examination Marks				Total Marks	Final Exam. Hours
		Lect.	Pract./tu t	Total		Period.	Pract.	Wr.	Oral		
Pharmacotherapy of Endocrine and Renal Diseases	PP 805	2	1	3	Pharmacology III	20	40	75	15	150	2
Pharmacotherapy of Oncological Diseases	PP 806	2	1	3	Pharmacology III	20	40	75	15	150	2
Clinical Pharmacokinetics	PP 807	2	1	3	Biopharmaceutics and Pharmacokinetics	20	40	75	15	150	2
Advanced Drug Delivery Systems	PT 808	2	-	2	Registration	15	--	75	10	100	2
Pharmaceutical Technology	PI 801	2	1	3	Pharmaceutical Dosage Forms-II	20	40	75	15	150	2
Public Health and Preventive Medicine	MD 806	2	--	2	General Microbiology and Immunology	25	--	75	--	100	2
Elective Course	PE ---	1	1	2	Registration	15	25	50	10	100	1
Total		13	5	18						900	

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PA 704 Quality Control of Pharmaceuticals

The course concerned with methods and procedures for evaluation of safety, potency and palatability of pharmaceutical products of small and large molecules drugs including herbal drugs. The standard pharmacopeial methods, procedures and international guidelines as WHO, EMA, TGA. Good Analytical Practice and Sampling. Documentation. Validation of analytical methods according to ICH Guidelines Q2 R1. Compendial testing. Drug stability testing according to ICH Q1 R2 Guidelines. Stress conditions for drug degradation according to ICH Q1 R2 Guidelines. Drug expiration, Drug withdrawal from the market. Pharmaceutical regulations according to FDA & EMA (European medicine agency) and ISO and BSI. Drug-excipient interactions and adduct formation; analytical techniques used to detect drug-excipient compatibility.

PC 703 Medicinal Chemistry III

The course handles overview of the medicinal chemistry of NSAIDs, opioids, steroidal hormones, peptide hormones , GIT drugs, antihistaminics and other related drugs. It is designed to afford a comprehensive understanding of the structural features; mechanism of action and SAR of the

PB 704 Clinical Biochemistry

This course will focus on the biochemistry of body fluids and how to use samples of them in Bio Lab. It will present the biochemical changes of body fluids occurring in human body to evaluate the functional state of liver, kidney, heart, bone, gastrointestinal tract, endocrine glands and to give interpretation of the results in relation to health and disease. In addition to clinical enzymology and acid- base balance, homeostasis and biochemical aspects of hematology and blood analysis , urine analysis, tumor markers and recent diagnostic biomarkers, will be covered.

PT 707 Biopharmaceutics & Pharmacokinetics

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AU-PHA-CPP-12-01

مقررات Pharm-D clinical



إدارة برنامج الصيدلة الإكلينيكية

The course is concerned with the exploration and examination of the physicochemical properties of drugs in the physiological environment and their impact on product performance. It explores the principles of biopharmaceutics and strategies for enhancing drug delivery and bioavailability. Also it introduces the students to basic pharmacokinetic parameters and mathematical aspects. General principles of pharmacokinetic models are presented as they pertain to the process of absorption, distribution and elimination of drugs in humans and the significance of these processes in drug therapy. Topics also emphasize linear and nonlinear metabolic clearance kinetics, drug-drug interaction mechanisms and kinetics, in vitro-in vivo predictions, pharmacogenetics and other sources of inter-individual variability.

PP 703 Clinical Pharmacy

This course includes the definition and concepts of clinical pharmacy and pharmaceutical care, case history and case presentation, medication history taking, clinical problem solving, and therapeutic planning, clinical rounding and assessment of patient compliance. Principles of special care populations (geriatric, pediatric, pregnancy, and lactation). Drug-related problems and drug interactions. Interpretation of clinical laboratory data and physical examination.

PP 704 Drug information

This course introduces the student to the concept and need of drug information, types of drug information resources (primary, secondary and tertiary literature), computerized and online drug information, literature evaluation and critical appraisal, storage and retrieval of information. Drug information centers (function, structure, service), systematic approach to answering queries, communicating the response. Ethical and legal issues in providing drug information, evidence-based medicine.

PP 805 Clinical Pharmacokinetics

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Pharm-D clinical مقررات



إدارة برنامج الصيدلة الإكلينيكية

This course provides basic principles of pharmacokinetics and their application to the clinical setting. Intravenous and oral kinetics, IV infusion, multiple oral dosing, non-linear pharmacokinetics, pharmacokinetic models. Sources of variability in pharmacokinetics, dosage regimen and dosage adjustment in children, obese, elderly patients and chronic disease states. Therapeutic drug monitoring and pharmacogenomics approaches.

PP 806 Pharmacotherapy of Endocrine & Renal Diseases

This course includes the Pathophysiology, causes, clinical presentation, diagnosis and application of pharmaceutical care plans in different endocrinologic disorders (Diabetes, thyroid disorder, caushing syndrome,...) and different renal disorders and related fluid and electrolyte disturbances (acute and chronic renal failure, uremic syndrome, kidney stones, ..). The course develops the students' ability to design, monitor, refine safe and cost-effective treatment plans and provide appropriate information to patient, caregivers, and health professionals.

PP 807 Pharmacotherapy of Oncological Diseases

Cancer aetiology, risk factors, cancer staging and grading, diagnosis, prognosis, optimizing chemotherapeutic regimens, different types of tumors (solid and hematologic) and their management, toxicities of chemotherapy, radiotherapy, supportive treatment, pharmaceutical care and patient's support measures.

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