

Clinical Pharmacy Department

- **Vision:**

Department of Clinical Pharmacy, Faculty of Pharmacy, October 6 University aiming to be one of the best departments on the local and regional level and participate in continuous improvement and spread of the concept of clinical pharmacy and pharmaceutical care as a component of the health discipline in Egypt and the Arab world.

- **Mission:**

Adoption of modern courses and disciplines necessary for the labor market to prepare pharmacists able to practice clinical pharmacy and pharmaceutical care services taking into account the ethics of practicing the profession, interest in training and use of information technology to raise the efficiency of the therapeutic disciplines and human resources on the national level and actively participate in community service.

- **The department teaches the following courses:**

Course Code	Course Name
PHP 401	Clinical Pharmacy and Therapeutics (1)
PHP 402	Hospital Pharmacy
PHP 503	Clinical Pharmacy and Therapeutics (2)
PHP 504	Clinical Pharmacy and Therapeutics (3)
PHP 505	Clinical Pharmacokinetics

Laboratories of Clinical Pharmacy Department			
Laboratory	Lab no.	Floor	Location
Preparation Room	230	Under ground	Saad Zaghloul Building
1	232	Under ground	
2	231	Under ground	
3	207	Under ground	
Clinical Pharmacy Unit	Nine	Ground	Hospital of October 6 University

- **Course Description:**

Fourth Level

2- Second semester

Code	PHP 401	Credit hours		
		L*	P/T**	Total
Title	Clinical Pharmacy and Therapeutics (1)			
Pre-requisite	Pharmacology (2), Clinical Biochemistry	2	1	3

Course content:

This course covers hypertension (definition and classification, incidence, clinical types, etiology, pathophysiology, diagnosis, complications, non-drug therapy, antihypertensive pharmacotherapy, hypertensive emergencies, hypertensive urgencies, patient counseling and education), Coronary heart disease (definition, manifestations, etiology, clinical types of angina pectoris, common etiologies, investigations, treatment goals, preventive measures, antianginal drug therapy, prophylactic agents, acute coronary syndromes: unstable angina and myocardial infarction, signs and symptoms, investigations, complications, pharmacotherapy), Diabetes mellitus (definition, classification, difference between type 1 and type 2 DM, clinical picture, diagnostic criteria, screening of diabetes, investigations, glycosylated hemoglobin, fructosamine, complications of DM, management of type 1 DM, dietary therapy, insulin preparations, insulin regimens, adverse effects of insulin, amylin receptor agonists, management of type 2 DM, dietary therapy, sulphonylureas, meglitinides, biguanides, thiazolidinediones, α -Gucosidase inhibitors, gliptins, gliflozins, incretin mimetics, management of diabetic complications, patient counseling and education), Peptic ulcer disease and acid-related disorders (definition, manifestations, etiology, clinical presentation, investigations, treatment objectives, drug therapy).

Code	PHP 402	Credit hours		
		L*	P/T**	Total
Title	Hospital Pharmacy			
Pre-requisite	Biopharmaceutics and Pharmacokinetics, Pharmacology (2), Pharmaceutics (4)	1	1	2

Course content:

This course covers hospital pharmacy concept, equipments, storage area, drug distribution systems, central supply services, pharmacy and therapeutic committee, hospital formulary, patient counseling, intravenous admixtures, parenteral nutrition and handling of cytotoxic drugs.

Fifth Level

1- First semester

Code	PHP 503	Credit hours		
Title	Clinical Pharmacy and Therapeutics (2)	L*	P/T**	Total
Pre-requisite	Pharmacology (2), Clinical Biochemistry	2	1	3

Course content:

This course covers respiratory disorders: Bronchial asthma (definition, incidence, precipitating factors, pathophysiology, clinical manifestations, diagnosis & Investigations, treatment of acute asthma, treatment of chronic asthma, surgical treatment of asthma, drug-induced asthma, complications of asthma), Chronic obstructive pulmonary disease (chronic bronchitis, emphysema). Liver disorders: Hepatic encephalopathy (definition and etiology, non-drug therapy, drug therapy, lactulose, antibiotics), Hepatic ascites, Renal Diseases: Acute renal failure (definition and etiology, clinical features, investigations, management of ARF, treatment of underlying cause, drug therapy, forced diuresis, management of uremia, dialysis, management of hyperkalemia), Chronic renal failure (definition, etiology, clinical features of CRF, investigations, management of CRF, treatment of underlying cause, conservative treatment, symptomatic treatment, treatment of CRF-associated anaemia, treatment of renal osteodystrophy). Thyroid disorders (hypothyroidism, clinical manifestations of hypothyroidism, management of hypothyroidism, T4 and T3 therapy, hyperthyroidism, clinical manifestations of hyperthyroidism, management of hyperthyroidism, antithyroid drugs, radioactive iodine, surgery, preoperative treatment, post-operative complications, patient education.

Fifth Level

2- Second semester

Code	PHP 504	Credit hours		
Title	Clinical Pharmacy and Therapeutics (3)	L*	P/T**	Total
Pre-requisite	Pharmacology (2), Clinical Biochemistry	1	1	2

Course content:

This course covers heart failure (definition, etiology, classification, investigations, treatment goals, drug therapy), Rheumatoid arthritis (definition, etiology, pathophysiology, articular and extra-articular clinical manifestations, characteristic deformities, diagnosis, investigations, non-drug-therapy), Nausea and vomiting (definitions, causes, clinical significance, antiemetic drug classes).

Obstetric disorders (conception, Signs and symptoms of pregnancy, Pregnancy testing, Expected delivery date, minor disorders of pregnancy, hypertensive disorders in pregnancy, diabetic states of pregnancy, gestational diabetes mellitus, ADA diagnostic criteria, screening for GDM, risk factors, patient education, management of diabetes in pregnancy, Labor pain: etiology, management, induction of labor, oxytocic drugs). Gynecologic disorders (Vaginitis: infectious vaginitis, management of infectious vaginitis, non-infectious vaginitis, management of non-infectious vaginitis, dysmenorrhoea: etiology and treatment, contraception and family planning).

Code	PHP 505	Credit hours		
Title	Clinical Pharmacokinetics	L*	P/T**	Total
Pre-requisite	Biopharmaceutics & Pharmacokinetics	2	1	3

Course content:

This course covers introduction of clinical pharmacokinetics & clinical trials, bioavailability, chemical forms & plasma protein binding, volume of distribution, loading dose, two compartment model, clearance, maintenance dose & elimination rate constants, half life, clinical application of KD & $t_{1/2}$, maximum & minimum concentration, selecting the appropriate equation, creatinine clearance, renal elimination, hepatic elimination, aminoglycoside nomogram, digoxin and theophylline nomogram.

- **Elective Courses:**

Code	PHP 600	Credit hours		
Title	Pharmacotherapy	L*	P/T**	Total
Pre-requisite	Pharmacology (2), Clinical Biochemistry	2	1	3

Course content:

This course includes mood disorders (major depressive disorder, bipolar disorders, anxiety spectrum disorders, obsessive compulsory disorders, attention-deficit hyperactivity disorder, insomnia), Seizure disorders (definitions, international classification of epileptic seizures, etiology and pathophysiology, treatment goals, pharmacotherapy, complications, convulsive status epilepticus, nonconvulsive status epilepticus, seizure disorders and pregnancy), Parkinson disease (definition, pathogenesis, etiology, signs and symptoms, diagnosis, non-drug therapy, pharmacotherapy, surgical treatment), Pain management (definition, classification, comprehensive

pain assessment, appropriate pain management targets, individualized pain, management regimens, analgesics: non-narcotic analgesics, narcotic analgesics, adjuvant analgesics and miscellaneous analgesics, agents used to treat migraine: triptans, β -blockers, CCBs, ACEIs/ARBs, ergot derivatives, non-pharmacological pain management).

Code	PHP 601	Credit hours		
Title	Clinical Nutrition	L*	P/T**	Total
Pre-requisite	Clinical Pharmacy and Therapeutics (1)	2	1	3

Course content:

This course covers nutritional problems in hospitalized patients, nutritional assessment and metabolic requirements, methods of support, monitoring support, support of specific states, technical aspects of parenteral nutrition preparations, home parenteral nutrition.

Code	PHP 602	Credit hours		
Title	Pharmacovigilance	L*	P/T**	Total
Pre-requisite	Pharmacology (3)	1	-	1

Course content:

This course includes the following: Definition of pharmacovigilance, why pharmacovigilance?, methods in pharmacovigilance, data assessment in pharmacovigilance.

Code	PHP 603	Credit hours		
Title	Clinical Pharmacy practice	L*	P/T**	Total
Pre-requisite	Clinical Pharmacy and Therapeutics (1)	2	1	3

Course content:

This course covers pharmaceutical care (reviewing and dispensing prescription, medication orders, communication skills, patient counseling), over-the-counter (OTC) agents (otic, dental, ophthalmic agents, dermatological agents, weight control, sleep aids, smoking-cessation aids agents for fever, pain, cough, cold, allergic rhinitis, constipation, diarrhea, hemorrhoids, heartburn, menstrual, vaginal, and contraceptive agents), nutritional supplements.