

Pharmacology department:

- Vision

To be a section leader in the field of Pharmacology and Toxicology locally, regionally and contributes to realize the hopes and aspirations of belonging to the field of pharmaceutical sciences through study and research of high quality.

- Mission

Work on the rehabilitation distinguished scientific cadres to contribute to the development of the profession of pharmacy and actively involved in the medical care team, and have the ability to understand the mechanism of drugs, uses, drug interactions and side effects of each medication, as well as methods of prevention and treatment of poisoning.

- The department teaches the following courses:

Course Code	Course Name
PHL 305	Pharmacology (1)
PHL 306	Biostatistics
PHL 407	Pharmacology (2)
PHL 408	Toxicology & Forensic Chemistry
PHL 409	Pharmacology (3)
PHL 510	Drug and Poison Information
PHL 511	Biological Standardization of Drugs

- The department Supervises teaching the following courses:

Course Code	Course Name
SOC 100	Psychology and Social science
FAD 100	First Aid
PHL 101	Anatomy
PHL 102	Histology
PHL 203	Physiology
PHL 204	Pathophysiology

Laboratories of Pharmacology and Toxicology Department			
Laboratory	Lab no.	Floor	Location
Preparation Room	230	Under Ground	Saad Zaghloul Building
1	232		

2	231		
3	207		

- Course description:

First Level

1- First Semester

Code	PHL 101	Credit hours		
Title	Anatomy	L*	P/T**	Total
Pre-requisite	None	1	1	2

Course content:

This course covers the anatomical terminology, bones and joints, muscles, skin and fascia, cardiovascular system, central nervous system, gastro-intestinal tract, urinary system, male and female reproductive systems, endocrine system, eyeball and ear.

Code	PHL 102	Credit hours		
Title	Histology	L*	P/T**	Total
Pre-requisite	None	1	1	2

Course content:

This course focuses on the study of the cell, cytoplasmic organelles (cell membrane, mitochondria, endoplasmic reticulum, golgi apparatus, lysosomes, ribosomes, cytoskeleton), nucleus, epithelial tissue (surface epithelium, glandular epithelium, neuro-epithelium, myo-epithelium), connective tissue (connective tissue proper, cartilage, bone, blood), muscular tissue (skeletal muscle, cardiac muscle, smooth muscle), nervous tissue (neurons, nerve fiber).

First Level

2- Second Semester

Code	SOC 100	Credit hours		
Title	Psychology and Social science	L*	P/T**	Total

	(University requirement)			
Pre-requisite	None	1	-	1

Course content:

علم النفس الدوائى، علم النفس الصيدلى، علم النفس (فروع علم النفس تعريف علم النفس، أهمية علم النفس فى الصيدلة، التعليمى، علم النفس العام، علم النفس الإجتماعى، علم النفس الرياضى)، الدوافع (دوافع السلوك، تعريف الدافعية)، بعض المفاهيم المرتبطة بالدافع (المنبه، الهدف، الحافز، الحاجة)، تصنيف الدوافع (أولية، ثانوية، شعورية، لا شعورية، دوافع نفسية اجتماعية)، الشخصية (تعريفها، تتكون الشخصية من ثلاث دعائم العقل، الارادة، العاطفة والعوامل المؤثرة فى الشخصية)، تعريف الذكاء العاطفى والذكاء الإجتماعى، إبعاد الذكاء العاطفى، قدرات الذكاء العاطفى، التعلم (تعريفه، وشروط التعلم الجيد).

Second Level

1- First Semester

Code	FAD 100	Credit hours		
Title	First Aid (University requirement)	L*	P/T**	Total
Pre-requisite	Anatomy, Histology	1	1	2

Course content:

This course includes priorities of first aid, resuscitation, breathing problems, bleeding, shock, bites, heart attacks, fractures, head injuries, spinal injuries, diabetic and eye emergencies, burns and scalds, poisons, seizures, unconsciousness and victim's transportation.

Code	PHL 203	Credit hours		
Title	Physiology	L*	P/T**	Total
Pre-requisite	Anatomy, Histology	2	1	3

Course content:

This course covers:

- Characteristics and electrophysiological properties of cell membrane, muscle and nerves. In addition to topics as autonomic nervous system, nervous structure and function, cardiovascular system, blood, respiratory cycle, gastrointestinal system, reproduction system, renal system, endocrine glands and body temperature regulation are covered.
- Blood: blood function, compositions, erythropoiesis, anemias, hemostasis and clotting

mechanism.

- Autonomic nervous system: include sympathetic and parasympathetic system, chemical transmission in autonomic nervous system.
- Nerve structure and function.
- Cardiovascular system: Introduction, cardiac output, Arterial blood pressure.
- Endocrine: Functions of hormones of different endocrinal glands.
- Reproductive system: Male and female Reproductive system.
- Respiration: Introduction, Pulmonary ventilation, mechanism of Respiration.
- Digestive system: Introduction, Gastric secretion.
- Renal system: Kidney functions, Physiological anatomy of the kidney, Formation of urine and glomerular filtration rate.

Second Level

2- Second semester

Code	PHL 204	Credit hours		
Title	Pathophysiology	L*	P/T**	Total
Pre-requisite	Physiology	2	-	2

Course content:

This course includes the following:

- Mechanisms of acute and chronic inflammation.
- The steps and microscopic changes of cell injury and healing.
- Study pathogenesis and pathophysiology mechanism of tuberculosis, neoplasia (different types) and different disorders of cellular growth.
- Pathogenesis and mechanism of hypertension, asthma and diabetes (type I, type II) right sided and left sided heart failures.

Third Level

2- Second semester

Code	PHL 305	Credit hours		
Title	Pharmacology (1)	L*	P/T**	Total
Pre-requisite	Pathology	2	1	3

Course content:

The course covers the general pharmacology (pharmacokinetics, pharmacodynamics), autonomic pharmacology (muscarinic agonists, and antagonists, adrenergic agonists and antagonists), pharmacology of autacoids (histamine, serotonin, prostaglandins and cytokines).

Code	PHL 306	Credit hours		
Title	Biostatistics	L*	P/T**	Total
Pre-requisite	Mathematics	1	-	1

Course content:

This course covers the following: General introduction, presentation of data, measures of central tendency and variability, relative measures of dispersion, tests of validity, the normal frequency distribution curve and tests of significance.

Fourth Level**1- First semester**

Code	PHL 407	Credit hours		
Title	Pharmacology (2)	L*	P/T**	Total
Pre-requisite	Pharmacology (1)	2	1	3

Course content:

This course covers cardiovascular pharmacology (anti-hypertensive drugs, anti-anginal drugs, congestive heart failure, anti-arrhythmic drugs, diuretic agents, pharmacology of the blood and lipid lowering drugs), pharmacology of the central nervous system (anxiolytic and hypnotic drugs, general anaesthetics, narcotic analgesics, anti-epileptic drugs, neuroleptic drugs, anti-depressant drugs, anti-parkinsonian drugs and analeptics).

Code	PHL 408	Credit hours		
Title	Toxicology & Forensic Chemistry	L*	P/T**	Total
Pre-requisite	Pharmacology (1)	2	1	3

Course content:

This course includes general toxicology, management of toxicity, target organs (toxic responses of the liver, kidney, respiratory system and eye), heavy metals, animals and plant toxins, mutation and teratogenicity, pesticides and forensic toxicology.

Fourth Level**2- Second semester**

Code	PHL 409	Credit hours		
Title	Pharmacology (3)	L*	P/T**	Total
Pre-requisite	Pharmacology (2)	2	1	3

Course content:

This course covers principles of chemotherapy, antibiotics (inhibitor of cell wall synthesis, drugs affecting bacterial protein synthesis and intermediary bacterial metabolism and drugs affecting bacterial DNA synthesis), urinary tract antiseptics, chemotherapy of tuberculosis, antifungal and antiviral agents and chemotherapy of protozoal infections, helminthiasis and cancer chemotherapy.

Fifth Level**1- First semester**

Code	PHL 510	Credit hours		
Title	Drug and Poison Information	L*	P/T**	Total
Pre-requisite	Pharmacology (3)	1	1	2

Course content:

This course covers management of drug poisoning (acetaminophen, tricyclic antidepressants, acetylsalicylic acid, iron, sedatives and hypnotics, organophosphorus compounds and caustics) drug information resources and electronic information management.

Code	PHL 511	Credit hours		
Title	Biological Standardization of Drugs	L*	P/T**	Total

Pre-requisite	Pharmacology (3)	2	1	3
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Course content:

This course covers screening and bioassay of drugs, sympathomimetic drugs, antagonists of adrenergic activity, parasympathomimetic drugs, anticholinesterases, atropine like drugs, neuromuscular blockers, histamine and antihistaminics, serotonin, cardiac glycosides, antidysrhythmic drugs, antihypertensive drugs, narcotic and non-narcotic analgesics, neuroleptic drugs, local anaesthetics, anti-inflammatory and antibilharzial drugs.

- **Elective Courses**

Code	PHL 600	Credit hours		
Title	Clinical Toxicology	L*	P/T**	Total
Pre-requisite	Toxicology & Forensic Chemistry	2	1	3

Course content:

This course covers poison management, toxic syndromes (toxidromes), medicinal cabinet (salicylates, paracetamol, digoxin, tricyclic antidepressants, hypoglycemic agents, anticoagulants), food/animal/plant poisons, household cleaning products (bleach, ammonia, detergents).

Code	PHL 601	Credit hours		
Title	Drug Abuse	L*	P/T**	Total
Pre-requisite	Toxicology & Forensic Chemistry	2	1	3

Course content:

This course covers cannabis, cannabinoids (marijuana, hashish), cocaine, heroin and opioids, sedative hypnotics (barbiturates, benzodiazepines), ethanol and toxic alcohols, phencyclidine, amphetamines, designer drugs, hallucinogens, nicotine and tobacco preparations, inhalants.