وصف البرنامج:

يهدف ماجستير العلوم الصيدلية في الأدوية والسموم إلى إعداد صيادلة ذوى قاعدة علمية وخبرة عملية متطورة في مجالات تطوير الأدوية، سواء فيما يتعلق بآلية المفعول الدوائى على المستوى الخلوى أو الجزيئى، فضلا عن أيضه وسميته وإزالته من الجسم. إضافة إلى ذلك يهيئ هذا البرنامج الخريج لتطوير قدراته العلمية و البحثية ويساعده على الإبتكار فى مجالات البحوث الدوائية المختلفة .و يتيح هذا البرنامج للطالب دراسة نظرية و تطبيقية للعديد من التخصصات فى مجال علم الأدوية و السموم بهدف الإرتقاء بمستوى الطالب مما ينعكس علي أدائه العلمى والمهنى. والبرنامج موجهة للصيادلة الذين يتطلعون للعمل في المجالات الصيدلية المختلفة كالهيئات الصحية والصناعات الدوائية ومراكز الرقابة و البحوث والتطوير والمعلومات الدوائية والسمية وأقسام التسجيل الدوائي فضلاً عن المؤسسات التعليمية والبحثية ويشرف على هذا البرنامج قسم الأدوية والسموم والكيمياء الحيوية . تبين الجداول التالية الساعات المعتمدة المطلوبة للحصول على درجة ماجستير العلوم الصيدلية في الأدوية و السموم مع توضيح المقررات الدراسية و عدد الساعات المعتمدة وتوزيع درجات الإمتحان لكل مقرر.

الفصل الأول

Code	Course		Credit		Course Assessment			
			Lect	Pract	Course Work	Pract Exam	Written Exam	Total
PCR 801	Scientific Writing	Compulsory	1	0	10	-	40	50
PCR 802	Ethics of Scientific Research		1	0	10	-	40	50
PCR 803	Pharmaceutical Statistics		2	0	20	-	80	100
PHL 841	Molecular Pharmacology		2	0	20	-	80	100
PHL 842	Advanced Pharmacology-I		3	0	30	-	120	150
PHL 843	Experimental Pharmacology		3	0	30	-	120	150
	Total Credits		**12**		**Total Marks**			**600**

الفصل الثاني

Code	Course		Credit		Course Assessment			
			Lect	Pract	Course Work	Pract Exam	Written Exam	Total
PHL 844	Advanced Pharmacology-II	**Compulsory**	2	0	20	-	80	100
PHL 845	Advanced Toxicology		2	0	20	-	80	100
PHL 846	Pharmacology E-learning	**Elective**	2	0	20	-	80	100
PHL 847	Advanced Clinical Toxicology		2	0	20	-	80	100
PHL 900	Thesis		**6**					
	Total Credits		**12**				**Total Marks**	**300**

بالإضافة الى 24 ساعة معتمدة "رسالة" توزع على فصلين دراسيين إضافيين على الأقل.

PROGRAM COURSES

PCR 801: SCIENTIFIC WRITING (1+0)

Course Description

This course aims to demystify the writing process and teach the fundamentals of effective scientific writing. Instructions will focus primarily on the process of writing and publishing scientific manuscripts but grant writing will also be addressed. The course will be presented in two segments: Part (1) teaches students how to write effectively, concisely, and clearly and part (2) takes them through the preparation of an actual scientific manuscript or grant.

PCR 802: ETHICS OF SCIENTIFIC RESEARCH (1+0)

Course Description

The course is essentially intended for graduate students in the biomedical sciences. This course delineates important ethical issues of scientific investigation, including intellectual property, plagiarism, conflict of interest, human and animal subjects, and record keeping.

PCR 803: PHARMACEUTICAL STATISTICS (2+0)

Course Description

An intensive introductory course in statistical methods used in applied research. Emphasis is placed on the principles of statistical reasoning, underlying assumptions, and careful interpretation of results. Topics covered include descriptive statistics, graphical displays of data, introduction to

probability, expectations and variance of random variables, confidence intervals and tests for means, differences of means, proportions, differences of proportions, chi-square tests for categorical variables, regression and multiple regressions, an introduction to analysis of variance.

PHL 841: MOLECULAR PHARMACOLOGY (2+0)

Course Description

Molecular pharmacology seeks to understand cellular and molecular mechanisms of basic biological processes and their mode of dysfunction under pathophysiological conditions. The science of pharmacology addresses these issues from an interdisciplinary perspective, exploring biological processes in vitro and in vivo. Molecular Pharmacology offers training in molecular basis of drug action. The teaching and training programs share an interest in linking mechanisms of drug action to dysfunctional biological and cellular processes of human diseases. The following course will focus on genomic regulation of drug actions: 'receptor-ligand' interactions and protein structure, molecular pharmacology of receptors, channels and enzymes, signal transduction and modulation as well as receptor theory.

PHL 842: ADVANCED PHARMACOLOGY-I (3+0)

Course Description

Pharmacology is an integrative subject that deals with the relationship between biological processes and therapeutic agents. This course will cover the mechanisms by which drugs alter brain function including medications used to treat a wide range of neurologic and psychiatric disorders as well as drugs of abuse. Furthermore, the course will include information on the pharmacology of mediators and cells that drive inflammation and the anti-inflammatory drugs. Additionally, the course covers the use of drugs in the elderly and pediatrics.

PHL 843: EXPERIMENTAL PHARMACOLOGY (3+0)

Course Description

This course is designed to help the students to master many experimental drug-induced models and toxidromes. This is beneficial for students to conduct their research.

PHL 844: ADVANCED PHARMACOLOGY-II (2+0)

Course Description

This course is a continuation of advanced pharmacology I aiming to cover various necessary topics. The course will address the pharmacological actions of hormones and related drugs in addition to the study of the etiology of different skin diseases and the drugs used for treatment. The use of drugs in pregnancy will also be covered, choosing drugs and adjustment of doses.

PHL 845: ADVANCED TOXICOLOGY (2+0)

Course Description

Toxicology studies the harmful effects of chemical, biological and physical agents in biological systems that establishes the extent of damage in living organisms**.** This course will provide the students with the extended information on the different mechanisms of action of toxic agents. The course will also cover the areas of environmental and developmental toxicology as well as genomic toxicology.

PHL 846: PHARMACOLOGY E-LEARNING (2+0)

Course Description

This course is mainly designed to help the students learn pharmacology through utilizing software programs (Pharmacy consortium for computer-aided learning; PCCAL). Students will be able to solve drug-related problems and also address the drug effects in various organ diseases by using a host of such PCCALS.

PHL 847: ADVANCED CLINICAL TOXICOLOGY (2+0)

Course Description

The course will cover the cardiovascular principles and which important drug classes are commonly involved with toxic side effects that might present to healthcare professionals. A number of medications used for the treatment of neurological and psychiatric disorders is also commonly associated with a wide range of toxic effects that require immediate attention in a clinical setting. Also, inherently linked to toxicity is the use of antibiotics and chemotherapeutics which display a number of specific toxic effects