

1.	School	Pharmacy
2.	Department	Clinical Pharmacy
3.	Program title (Arabic)	ماجستير في الصيدلة السريرية
4.	Program title (English)	Master of Clinical Pharmacy
5.	Track	Thesis Track

	Specialization #	Degree	Dep #	Faculty #	Year	Track
Plan Number		041	03	12	2022	8

First: General Rules & Conditions:

1. This plan conforms to the valid regulations of the programs of graduate studies.
2. Specialties of Admission:
 - The First Priority: Bachelor's in Pharmacy, Bachelor's in Doctor of Pharmacy.
 - The second Priority: None.

Second: Special Conditions: None.

Third: Study Plan: Studying (36) Credit Hours as following:

1. Obligatory Courses (18) Credit Hours:

Course No.	Course Title	Credit Hrs	Theory	Practical.	Pre/Co-requisite
1203708	Pharmacotherapy 1	3	3	-	-
1203729	Pharmacotherapy 2	2	2	-	-
1203711	Pharmaceutical care	3	3	-	-
1203712	Hospital Clerkship 1	2	-	16	1203708+1203711
1203713	Hospital Clerkship 2	2	-	16	1203708+1203711
1203722	Clinical Pharmacokinetics	2	2	-	-
1203723	Clinical research methods and statistics	2	2	-	-
1203724	Advanced pharmacotherapy	2	2	-	-

2. Elective Courses: Studying (9) Credit hours from the following:

Course No.	Course Title	Credit Hrs	Theory	Practical.	Pre/Co-requisite
1203716	Clinical Biochemistry	3	3	-	-

1203717	Toxicology	3	3	-	-
1203718	Evidence-Based Pharmacy Practice	3	3	-	-
1203720	Drug misuse and abuse	3	3	-	-
1233725	Hospital Pharmacy	3	3	-	-
1203726	Specialty Hospital Clerkship 1	3	-	24	1203712
1203727	Specialty Hospital Clerkship 2	3	-	24	1203713
1203728	Pharmacy Administration (Pharmaceutical marketing/ Pharmacoeconomics)	3	3	-	-
1201723	Phytotherapy	3	3		
1202709	Pharmaceutical Biotechnology	3	3		
1202724	Cosmetic Science	3	3		

3. Thesis: (9) Credit hours (1203799).

*notes

Course Description

1203708 Pharmacotherapy 1: (3 Cr.)

Covers the pathophysiology, clinical presentations, pharmacotherapy (pharmacokinetics & pharmacodynamics, drug/drug interactions, dosage calculations, adverse effects, treatment algorithm, goals of therapy & patient education) of 1) CVS disorders 2) Endocrine disorders 3) Gastroenterology disorders.

Teaching will be conducted through lecturing, case discussions, and assignments

1203709 Pharmacotherapy 2: (3 Cr.)

Covers the pathophysiology, clinical presentations, pharmacotherapy (pharmacokinetics & pharmacodynamics, drug/drug interactions, dosage calculations, adverse effects, treatment algorithm, goals of therapy & patient education) of: 1) Infectious diseases 2) Neurology disorders 3) Oncology/Haematology disorders 4) Respiratory disorders 5) Renal disorders 6) Dermato-venerology

Teaching will be conducted through lecturing, case discussions, and assignments.

1203711 Pharmaceutical Care: (3 Cr.)

This course offers introduction into the basic skills, including interpretation of clinical laboratory tests, case notes, observation charts. Principles of pharmaceutical care (creating patient database, drug therapy problem assessment, pharmacotherapy plan, patient monitoring). Communication skills: patient counselling, interview techniques, presentation & teaching skills, concepts & practice of drug information

- 1203712 Hospital Clerkship 1: (2 Cr.)**
Students will participate in medical ward rounds, case seminars & hospital education programs. Available rotations include cardiology, oncology/haematology, critical care, neurology, nephrology. Students will be involved in clinical research & assignments, as well as in patient monitoring. The level of student competency will be demonstrated to a panel of clinical teacher-practitioner.
- 1203713 Hospital Clerkship 2: (2 Cr.)**
Students will participate in medical ward rounds, case seminars & hospital education programs. Available rotations include respiratory, rheumatology, endocrine, infectious diseases, surgery, pediatrics, gynecology/obstetrics. Students will be involved in clinical research & assignments, as well as in patient monitoring. The level of student competency will be demonstrated to a panel of clinical teacher-practitioner.
- 1203722 Clinical Pharmacokinetics: (3 Cr.)**
This course includes introduction to mathematical techniques required for the treatment of pharmacokinetic modelling. Additionally, application of pharmacokinetic principles to clinical practice and its relevance to the rational design of individualized drug dosage regimens in the total clinical context, considering such special problems as hepatic and renal functional impairment, other effects of disease, immaturity of drug metabolizing enzymes, and drug interactions.
- 1203723 Research Methods in Clinical Pharmacy: (2 Cr.)**
This course introduces the students to the fundamentals of research including measurement, reliability, validity, ethical concerns' clinical research design, data analysis and presentation
- 1201723 Phytotherapy: (3 Cr.)**
This course insight into dosage forms of application and effect of the most important herbal remedies and fields of applications. It also includes medicinal plants, phytopharmaceuticals and their effects on CNS, Cardiovascular system, Respiratory system, Digestive system and Urinary tract. Quality control of herbal medicines and poisonous plants are included.
- 1202709 Pharmaceutical Biotechnology (3 Cr.)**

The course is including general molecular biology and genetics: construction and application of expression vectors, genetic diversity and disease, oncogenes, and cancer. It also enclosed medical dimensions of molecular biology such as vaccine and DNA fingerprint determination, in addition to gene therapy, retrovirus, IVF and cells fusion. This course also includes the use of genetic engineering in drug targeting and plants where genetic transformation and chimeric gene vectors will be discussed.

- 1202724 Cosmetics (3 Cr.)**
This course includes advanced cosmetic formulations for skin, hair, nail and dental products. New active materials and excipients, efficacy testing of cosmetics. It also includes legislation and safety regulations for cosmetics, stability testing and perfume manufacturing.
- 1203716 Clinical Biochemistry: (3 Cr.)**
This course aims to cover the advanced topics in clinical biochemistry e.g., endocrinology, clinical chemistry in pregnancy, clinical chemistry of the extremes of age and tumour markers.
- 1203717 Toxicology: (3 Cr.)**
The course covers the following topics, special aspects of perinatal and paediatrics, special aspects of geriatric patients, drug-induced disorders 4) Drugs of abuse.
- 1203718 Evidence-Based Pharmacy Practice: (3 Cr.)**
This course introduces pharmacist to the concepts and analytical foundation underlying evidence-based pharmacy practice. Course content will focus on concepts of evidence-based pharmacy practice, and the structure and evaluation of clinical research proposals and reports. Upon completion of the course, the student will be able to critically evaluate the medical literature for use in clinical decision making.
- 1203720 Drug misuse and abuse: (3 Cr.)**
This course introduces the students to the background knowledge about the most common drugs of abuse and the medical complications associated with their misuse/abuse. Also, it aims to provide knowledge and clarify terminology associated with drug use. In addition, knowledge about transmission, treatment, and prophylaxis of diseases to which drug users can be susceptible will be provided. Finally, an overview of the most common treatment methods and services offered to drug dependents in the world and in Jordan will be discussed.
- 1233725 Hospital Pharmacy: (3 Cr.)**

This course covers detailed discussion of the practice of Hospital Pharmacy including the different duties of the hospital pharmacist, namely: organization of the hospital and hospital pharmacy, purchase and inventory control, the Pharmacy and Therapeutics committee, the Hospital Formulary, unit dose system, preparation of intravenous admixtures services, and how to conduct patient education and counselling.

1203726 Specialty Hospital Clerkship (1) (3 Cr.)

Students will practice in a specific medical specialty to improve his knowledge and clinical skills (Cardiovascular or Oncology or Intensive Care or Neurology or Nephrology or Family medicine). This clerkship allows students to tailor their education to best meet their career goal.

1203727 Specialty Hospital Clerkship (1) (3 Cr.)

Students will practice in a specific medical specialty to improve his knowledge and clinical skills (Respiratory or Rheumatology or Endocrinology or Infectious diseases or Surgery or Paediatrics or Gynaecology or Ambulatory Care). This clerkship allows students to tailor their education to best meet their career goal.

1203728 Pharmacy Administration (Pharmaceutical marketing/ Pharmacoeconomics) (3 Cr.)

This course is designed to introduce the applications of Pharmacoeconomics' principles & cost-effectiveness methodologies into clinical aspects of health technology programs and the applications of marketing strategies into medicines. This will include Budget Impact Analysis, best recourse allocation aspects and health economics modelling simulations as well as how to link marketing pharmaceutical services with patient/physician behaviour as a consumer.