Diploma in Hospital and Clinical Pharmacy

قائمة مقررات دبلوم صيدلة المستشفيات والصيدلة الإكلينيكية (دبلوم تخصصي بالمشاركة بين قسم الصيدلانيات وقسم الممارسة الصيدلية) (24 cr. h)

First Semester (12 cr. h)

No.	Code No.	Courses		Cro	edit urs
				L	P
1	0601614	Hospital Pharmacy Services	خدمات صيدلة	2	
1			المستشفيات	2	
2	0601615	Hospital Management	ادارة المستشفيات	1	
3	0601616	Pharmacoeconomics and Medicines	اقتصاديات العلاج	2	
3		Management	وادارة الأدوية	2	
4	0601617	Clinical Pharmacokinetics	حركية الدواء الإكلينيكية	2	
5	0601618	Compounded Sterile Preparations	المستحضرات المحضرة	1	
3			المعقمة	1	
6	0601619	Nuclear Pharmacy	الصيدلة النووية	1	
7	0601620	Patient Care I	ر عاية مرضي I	2	
8		Elective Course	ر عاية مرضي I مقرر اختياري	1	
		Total		1	2

Second Semester (12 cr. h)

No. Courses				Credit hours	
				L	P
9	0601621	ت Research Methods and	طرق البد والاحصاء	1	
9		Biostatistics.	والاحصاء	1	
10	0601622	Pharmacovigilance وائية	اليقظة الدو	1	
11	0601623	1 1		1	
11		لإكلينيكية Laboratory Data	المعملية ا	1	
12	0601624	Patient Care II IIي	رعاية مر	2	
13	0601625	ا Patient Care III III	ر عاية مر	2	
14	0601626	Hospital Pharmacy Training صيدلة	تدریب فی		2*
14		ت	المستشفياد		۷٠
15	0601627	Dissertation	مقالة علمي	2	
16		Elective Course		1	
		Total		1	12

^{*1} credit hour hospital training is 4 hours weekly

Elective Courses

No.	Course Code	Courses	Cro hou	edit ırs
			L	P
1	0601628	Pharmacogenomics علم الدواء الوراثي	1	
2	0601629	Nutrition for Hospitalized Patient التغذية لمرضى المستشفيات	1	
3	0601630	Current Topics in Health Care مواضيع حالية في الرعاية الصحية	1	
4	0601631	ر عاية المرضى كبار السن Care of the Geriatric Patient	1	

وصف مقررات دبلوم صيدلة المستشفيات والصيدلة الإكلينيكية (24 cr. h)

First Semester (12 cr. h)

Course Name	Credit hours		Code No.
Course wante	L	P	Code No.
Hospital Pharmacy Services خدمات صيدلة المستشفيات	2		0601614

Description: The course introduces the students to various hospital pharmaceutical services including dispensing to both inpatients and ambulatory patients, dispensing during off-hours, dispensing of controlled drugs and ancillary supplies, pre-packaging, compounding and storage medications, ward and clinical services, patient medication profile and data collection, medication errors, hospital formulary, Pharmacy and Therapeutics Committee and policy making, education and training services of health professionals, patient compliance.

PH7301 - Practice of Hospital Pharmacy

• (Hospital pharmacy MSC/ Trinity College Dublin, The University of Dublin, Ireland)

Course Name		hours	Code No.
		P	Code No.
Hospital Management	1		0601615
إدارة المستشفيات	_		0001012

Description: The course introduces students to classical as well as modern organizational concepts and their application in hospitals. It covers functions and relationships of governing board, hospital administrator, and medical staff. It also examines the main hospital departments, focusing on objectives and functions, planning and design, organization, staffing, policies and procedures, information systems, performance measures and implementing quality and utilization management activities in hospitals. This course provides students with knowledge and skills necessary to be able to meet financial needs of hospitals and control hospital costs and focuses on leadership concepts, issues, theories and skills required for the development of successful and influential leaders. PH7308 - Health Services Management

• Hospital pharmacy MSC/ Trinity College Dublin, The University of Dublin, Ireland)

Course Name	Credit	hours	Code No.
	L	P	
Pharmacoeconomics and Medicines			
Management	2		0601616
اقتصاديات العلاج وادارة الادوية			

Description: The course introduces the students to the fundamental methods of Pharmacoeconomic (PE) analysis. It focuses on the theory, methods and application of technology assessment in health care. Application will be drawn from a variety of health care settings, including pharmaceuticals. Multiple self-directed learning activities are required. It also aims at equipping students with a real understanding of the major components of medicines supply system: Drug Selection, Procurement, Distribution and Use. It will focus on appropriate methods and techniques of drugs selection, inventory analysis and control, rational distribution, quality assurance as well as handling, storing and disposal.

PH7308 - Health Services Management

• <u>Hospital pharmacy MSC/ Trinity College Dublin, The University of Dublin, Ireland</u> <u>PF6005 Pharmacoeconomics (Pharmacy - Clinical Pharmacy, MSc/ University College Cork, Ireland)</u>

Course Name	Credit hours		Code No.
Course Name		P	Code No.
Clinical Pharmacokinetics حركية الدواء الإكلينيكية	2		0601617

Description: The course introduces the students to various aspects of clinical pharmacokinetics, therapeutic drug monitoring, mono and multi-exponential pharmacokinetics, non-compartmental pharmacokinetics and moment analysis. It also includes drug distribution and drug clearance mechanisms, IV infusion kinetics and kinetics following extra-vascular dosing, metabolic kinetics, multiple dose kinetics, non-linear pharmacokinetics, dosage regimen design, dosage individualization of drugs of low therapeutic index, especially in patients with compromised renal and hepatic function. Pharmacokinetics in selected populations (paediatrics, elderly patients, pregnant and nursing women) are also considered.

PF6010 Pharmacology, Therapeutics and Rational Use of Drugs

AND

 PF6007 Pharmacotherapy III (Pharmacy - Clinical Pharmacy, MSc/ University College Cork, Ireland

Course Name	Credi	t hours	Code No.	
Course wante	L	P	Code No.	
Compounded Sterile Preparations المستحضرات المحضرة المعقمة	1		0601618	

Description: The course provides students with a fundamental understanding of aseptic processing in hospital; repackaging of sterile products, IV admixtures preparation, storage and assigning beyond-use dates and handling of cytotoxic parenterals. The course prepares the students to take the proper decisions regarding the suitable diluents for compounding injectable preparations and to choose the proper combination of injectable formulae with no risk of incompatibilities. The course highlights the procedures needed for handling of cytotoxic parenterals and deals with injectable biotechnology products (reconstitution, dilution, storage......). Mathematical aspects for compounded sterile preparations are also discussed.

• PH7305 - Aseptics & Good Manufacturing Practice (GMP). (Hospital pharmacy MSC/ Trinity College Dublin, The University of Dublin, Ireland)

Course Name	Course Nome		t hours	Code No.	
Course Name		L	P	Code No.	
Nuclear Pharmacy	الصيدلة النووية	1		0601619	

Description: The course introduces the students to the fundamental aspects of radio-active drugs for diagnosis and therapy. It includes procurement, storage, handling, preparation, compounding, dispensing and monitoring of radio-pharmaceuticals. It also provides the scientific knowledge and professional judgement required to improve and promote health through the safe and efficacious use of radio-active drugs for diagnosis and therapy.

• Nuclear Medicine: Science & Practice MSc (King's College, London)

Course Name		Credit hours		Code No.	
Course maine		L	P	Coue No.	
Patient Care I	رعاية مرضي I	2		0601620	

Description: The course includes management of some disease states such as Haematology diseases (leukaemia, lymphoma, anaemia), liver diseases and cancer. The course covers also the critical care pharmacy.

 PF6007 Pharmacotherapy III (Pharmacy - Clinical Pharmacy, MSc/ University College Cork, <u>Ireland</u>

Second Semester (12 cr. h)

Course Name	Credit hours		Code No.	
Course Name	${f L}$	P	Coue No.	
Research Methods and Biostatistics طرق البحث والإحصاء الحيوي	1		0601621	

Description: The course covers drug information resources for pharmacists, evidence-based practice approach research methodology and to different study designs and steps involved in carrying out a research project in different pharmacy domains. Data presentation and statistical concepts are discussed. The course will be taught using a combination of classroom lectures, case-based discussions, small-group and self-directed learning. Student participation both within the classroom, online and group work assignments are expected.

- <u>PH7000 Research Module</u>
 <u>Hospital pharmacy MSC/ Trinity College Dublin, The University of Dublin, Ireland</u>
- PF6001 Biostatistics/Critical Appraisal (Pharmacy Clinical Pharmacy, MSc/ University College Cork, Ireland

Course Name	Credi	t hours	Code No.	
Course Name	L	P	Coue No.	
Pharmacovigilance ظة الدوائية	اليق		0601622	

Description: The course covers the basics in pharmacovigilance, introduction to pharmacoepidemiology, medical aspects of adverse drug reactions, global pharmacovigilance regulatory requirements and Periodic safety reports.

• PF6010 Pharmacology, Therapeutics and Rational Use of Drugs (Pharmacy - Clinical Pharmacy, MSc/University College Cork, Ireland

Course Name		t hours	Code No.
Course Name	L	P	Code No.
Interpretation of Clinical Laboratory Data دلالات نتائج التحاليل المعملية الإكلينيكية	1		0601623

Description: The course focuses on the common biochemical and haematological tests that are of clinical and diagnostic importance with a brief review of the physiology and pathology to explain basis of biochemical and haematological disorders. Further specific information on clinical and therapeutic relevance of each test is discussed. Drug—induced laboratory data changes are also considered.

• Clinical Foundations course module (Clinical Pharmacy MSC, , DEMONT FORT university, Leicester, UK)

Course Name		Credit hours		Code No.
Course Name		L	P	Code No.
Patient Care II	رعاية مرضى II	2		0601624

Description: The course includes management of some disease states such as: gastrointestinal, renal and cardiovascular.

- PH7306 & PH7307 Medical Specialties Part I & II (Hospital pharmacy MSC/ Trinity College Dublin, The University of Dublin, Ireland)
- PF6009 Pharmacotherapy I AND PF6006 Pharmacotherapy II (Pharmacy Clinical Pharmacy, MSc/University College Cork, Ireland)

Course Name		Credit hours		Code No.
Course Name		L P	P	Code No.
Patient Care III	رعاية مرضي III	2		0601625

Description: The course introduces the students to infectious diseases and hospital infection control and rheumatic disorders.

 PF6006 Pharmacotherapy II: (Pharmacy - Clinical Pharmacy, MSc/ University College Cork, Ireland

Course Name	Teaching h/week		Credit hours	Code No.
	${f L}$	P		
Hospital Pharmacy Training تدريب في صيدلة المستشفيات		8	2	0601626

Description: Training in some selected hospital pharmacies is required. The training covers the most important functions of the hospital pharmacy, from dispensing to drug production, from quality assurance to clinical pharmacy such as structure organization and management of the hospital pharmacy, quality of pharmaceuticals, drug distribution system, stock management and information supply concerning drugs. Cooperation with the medical team is emphasized.

• Hospital pharmacy MSC/ Trinity College Dublin, The University of Dublin, Ireland

Course Name	Credit hours		Code No.
Course Name	L	P	Couc 110.

Dissertation مقالة علمية	2		0601627
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Description: Students, individually or in group, formulate one or more research question(s) and develop a dissertation plan on the basis of the literature reviews. In writing out the research proposal the emphasis is on formulating concrete research questions and developing a research protocol allowing for a certain aspect of the use of medicine to be studied and / or for the mapping of the role of the pharmacist with regard to the topic.

• **PF6008 Research Dissertation in Clinical Pharmacy** (Pharmacy - Clinical Pharmacy, MSc/University College Cork, Ireland

Elective courses

Course Name		t hours	Code No.
Course Name	L	P	Code No.
Pharmacogenomics علم الدواء الوراثي	1		0601628

Description: The course provides students with an overview on how the individual genetic variations influence drug response, efficacy and adverse drug effects. How to apply genomics to manage different disorders, choose a drug, drug dose and duration of treatment. The course also covers the regulatory guidelines for pharmacogenetics in drug development. The Ethical issues in pharmacogenetics is also discussed

Hospital pharmacy MSC/ Trinity College Dublin, The University of Dublin, Ireland

Course Name		t hours	Code No.
Course Name	L	P	Coue No.
Nutrition for Hospitalized Patients التغذية لمرضى المستشفيات	1		0601629

Description: The course covers nutrition problems in hospitalized patient, nutrition assessment, metabolic requirements (energy requirements, protein, essential fatty acids, micronutrients and electrolytes). Enteral and parenteral nutrition (routes of administration, formulation, mathematical calculations of nutrition needs, complication, technical aspects of nutrition preparation and monitoring of nutritional support) are also discussed. Nutrition in selected populations (paediatrics, elderly patients, pregnant and nursing women) are considered.

Diseases and specific nutrition support are also discussed (renal diseases, diabetes, cardiovascular diseases, GIT diseases, pulmonary diseases, HIV/AIDS, metabolic stress, anemia, neurological and mental disorders and neoplastic diseases).

• Nutrition MSc(King's College, London)

Course Name	Credit hours		Code No.
Course Name	L	P	Code No.
Current Topics in Health Care مواضيع حالية في الرعاية الصحية	1		0601630

Description:

The course explores current topics in health care and examines their relationship and potential impact on pharmacy practice. The course requires students to review current news periodicals and internet-based news sources. Cases will be assigned that require critical analysis and writing of executive summaries.

Chicago State University

 $\underline{https://www.csu.edu/collegeofpharmacy/academicaffairs/curriculum/coursedescription.htm}$

Course Name		hours	Code No.
Course Name	L	P	Code No.
Care of the Geriatric Patient رعاية المرضى كبار السن	1		0601631

Description:

The course reinforces general principles pertaining to the care of the geriatric patient. The goal is to enhance the student pharmacist's competence in caring for older adults. Topics will focus on the physiological, psychological, physical, ethical, social, economic and therapeutic issues of aging. Each lecture incorporates topics and activities pertinent to providing patient-centered care in the older adult populations.

Chicago State University

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