



# Faculty of Pharmacy

## Bachelor in Pharmacy (Pharm D) Clinical Pharmacy Program

### Program Specification

#### Academic Year:2025/2026

## 1. Basic Information

<b>ProgramTitle (according to what is stated in the bylaw):</b>	Bachelor in Pharmacy (Pharm D) (Clinical Pharmacy) 2025
<b>Total number of credit hours/points of the program:</b>	182 credit hours
<b>Number of academic years/levels (expected program duration):</b>	5 years + one academic year of training internships
<b>Department (s) Participating (if any) in teaching the program:</b>	<ul style="list-style-type: none"><li>• Department of Medicinal Chemistry (PC)</li><li>• Department of Pharmaceutical Organic Chemistry (PC)</li><li>• Department of Pharmaceutical Analytical Chemistry (PC)</li><li>• Department of Biochemistry (PB)</li><li>• Department of Pharmaceutics (PT)</li><li>• Department of Pharmacognosy (PG)</li><li>• Department of Microbiology and Immunology (PM)</li><li>• Department of Pharmacology and Toxicology (PO)</li><li>• Department of Clinical Pharmacy and Pharmacy Practice (PP)</li></ul>
<b>Faculty/Institute:</b>	Faculty of Pharmacy
<b>University/Academy:</b>	Mansoura University
<b>Program majors/divisions/tracks/specialties in the final year (if any):</b>	---
<b>Partnerships with other parties and the nature of each (if any):</b>	---
<b>Name of the program coordinator (attach the assignment decision):</b>	Prof Dr. Marwa Salah El-din El-Dahan, <a href="#">Link</a>
<b>Program Specification Approval Date:</b>	9/18/2025
<b>Council responsible for Program Specification Approval (Attach the Decision / Minutes):</b>	<a href="#">Link</a>



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### **2. Program Aims (Brief description of the overall purpose the program)**

**Mansoura University Awards Bachelor of Pharmacy (Pharm D-Clinical Pharmacy) degree following a five-year undergraduate Pharmacy program and one academic year of internship. This Pharmacy program provides students with the necessary knowledge and skills in basic, pharmaceutical, medical, social, behavioral, health, environmental sciences, clinical pharmacy and pharmacy practice and management; aiming to graduate competent general practitioner pharmacists; capable of working effectively in different settings, including community pharmacies, hospitals, forensic and biomedical laboratories, governmental and private health institutions, pharmaceutical industries, academia and research centers. The program aims to:**

1. Fostering the pharmacist's role in delivering appropriate healthcare both in hospitals and outpatient settings by monitoring patients' medication regimens, understanding clinical pharmacokinetics, and applying this knowledge to treat a variety of medical conditions. This involves working closely with the treating physician to create optimal treatment strategies, ultimately enhancing patient care and minimizing drug-related risks and interactions.
2. Graduating highly competent pharmacists equipped to work in diverse environments, including public and private pharmacies, pharmaceutical companies, drug control laboratories, food testing, as well as in media, marketing, research, and academic sectors.
3. Boosting the regional competitiveness of graduates through targeted educational and training programs designed to enhance their skills and knowledge.
4. Contributing to community service and environmental sustainability while generating tangible economic benefits by advocating for the rational use of medicines within hospitals.
5. Dedication to maintaining quality standards in pharmacy education by incorporating interactive learning approaches and promoting self-learning to foster continuous development.
6. Contribute to community welfare and environmental progress with generating significant economic benefits by promoting the efficient use of medications within hospitals.
7. Pursue continuous learning by advancing knowledge in contemporary pharmacy practices, and developing leadership, innovation, and entrepreneurship abilities.



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## **3. Program Structure (Curriculum)**

- Program Components**

Requirement Category/Type		Number of Courses	Number of Credit Hours/Points	Percentage from the total number of hours/points
University Requirements		5	6	3.3%
Faculty/College Requirements (if applicable)		63	168	92.3%
Program Requirements		-	-	-
Requirements of the majors/ divisions/ tracks/ specializations in the final year (if any)		-	-	-
Other requirements	Field Training	-	100	-
	Graduation Project	1	180	-
	Mandatory training year	5	900	-
	Other (to be mentioned)	-	-	-
Total Compulsory Courses		68	174	95.6%
Elective Courses		4	8	4.4%
Total		72	182	100%



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#### • Program courses according to the expected study plan

Level	Semester	Course Code	Course Title	Course Type (Compulsory/ Elective)	Requirement Category/ Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
One	First Semester	PC 101	Pharmaceutical Analytical Chemistry I	Compulsory	Faculty	3	2	1	-
One	First Semester	PC 102	Pharmaceutical Organic Chemistry I	Compulsory	Faculty	3	2	1	-
One	First Semester	PT 101	Pharmacy Orientation	Compulsory	Faculty	1	1	-	-
One	First Semester	PG 101	Medicinal Plants	Compulsory	Faculty	3	2	1	-
One	First Semester	MD 101	Medical Terminology	Compulsory	Faculty	1	1	-	-
One	First Semester	MS 101	Mathematics and Biostatistics	Compulsory	Faculty	1	1	-	-
One	First Semester	UR1	Psychology	Compulsory	University	1	1	-	-
One	Second Semester	PC 203	Pharmaceutical Analytical Chemistry II	Compulsory	Faculty	3	2	1	-
One	Second Semester	PC 204	Pharmaceutical Organic Chemistry II	Compulsory	Faculty	3	2	1	-
One	Second Semester	PB 201	Cell Biology	Compulsory	Faculty	2	1	1	-
One	Second Semester	MD 202	Anatomy & Histology	Compulsory	Faculty	2	2	-	-
One	Second Semester	PT 202	Physical Pharmacy	Compulsory	Faculty	3	2	1	-
One	Second Semester	PG 202	Pharmacognosy I	Compulsory	Faculty	3	2	1	-
One	Second Semester	UNVS 101	Social Issues	Compulsory	University	1	1	-	-
One	Second Semester	UR 2	Information Technology	Compulsory	University	2	1	1	-
Two	First Semester	PC 305	Pharmaceutical Organic Chemistry III	Compulsory	Faculty	3	2	1	-
Two	First Semester	PB 302	Biochemistry I	Compulsory	Faculty	3	2	1	-



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Two	First Semester	PG 303	Pharmacognosy II	Compulsory	Faculty	3	2	1	-
Two	First Semester	MD 303	Physiology and pathophysiology	Compulsory	Faculty	3	2	1	-
Two	First Semester	PT 303	Pharmaceutical dosage forms I	Compulsory	Faculty	3	2	1	-
Two	First Semester	UR 3	Communication and presentation Skills	Compulsory	University	1	1	-	-
Two	Second Semester	PO 401	Basic Pharmacology	Compulsory	Faculty	3	2	1	-
Two	Second Semester	PM 401	General Microbiology and Immunology	Compulsory	Faculty	3	2	1	-
Two	Second Semester	PC 406	Instrumental Analysis	Compulsory	Faculty	3	2	1	-
Two	Second Semester	MD 404	Pathology	Compulsory	Faculty	2	2	-	-
Two	Second Semester	PT 404	Pharmaceutical Dosage Forms II	Compulsory	Faculty	3	2	1	-
Two	Second Semester	PB 403	Biochemistry II	Compulsory	Faculty	3	2	1	-
Three	First Semester	PO 502	Pharmacology I	Compulsory	Faculty	3	2	1	-
Three	First Semester	PM 502	Pharmaceutical Microbiology and Antimicrobials	Compulsory	Faculty	3	2	1	-
Three	First Semester	PT 505	Pharmaceutical Dosage Forms III	Compulsory	Faculty	3	2	1	-
Three	First Semester	PT 506	Pharmaceutical Technology	Compulsory	Faculty	3	2	1	-
Three	First Semester	PG 504	Phytochemistry I	Compulsory	Faculty	3	2	1	-
Three	First Semester	PP 501	Hospital Pharmacy	Compulsory	Faculty	3	2	1	-
Three	Second Semester	PO 603	Pharmacology II	Compulsory	Faculty	3	2	1	-
Three	Second Semester	PG 605	Phytochemistry II	Compulsory	Faculty	3	2	1	-
Three	Second Semester	PM 603	Parasitology & Virology	Compulsory	Faculty	3	2	1	-



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Three	Second Semester	PP 602	Community Pharmacy Practice	Compulsory	Faculty	3	2	1	-
Three	Second Semester	PT 607	Biopharmaceutics and Pharmacokinetics	Compulsory	Faculty	3	2	1	-
Three	Second Semester	MD 605	First Aid and Basic Life Support	Compulsory	Faculty	2	1	1	-
Four	First Semester	PO 704	Pharmacology III	Compulsory	Faculty	3	2	1	-
Four	First Semester	PC 707	Medicinal Chemistry I	Compulsory	Faculty	3	2	1	-
Four	First Semester	PT 708	Advanced Drug Delivery Systems	Compulsory	Faculty	2	2	-	-
Four	First Semester	PP 703	Clinical Pharmacy Practice	Compulsory	Faculty	3	2	1	-
Four	First Semester	PM 704	Medical microbiology and Immunological disorders	Compulsory	Faculty	3	2	1	-
Four	First Semester	PG 706	Phytotherapy	Compulsory	Faculty	3	2	1	-
Four	First Semester	PT 709	Pharmacy Legislation and Practice Ethics	Compulsory	Faculty	1	1	-	-
Four	Second Semester	PC 808	Medicinal Chemistry II	Compulsory	Faculty	3	2	1	-
Four	Second Semester	PO 805	Advanced Pharmacotherapy and Therapeutics	Compulsory	Faculty	3	2	1	-
Four	Second Semester	PP 804	Clinical Pharmacokinetics	Compulsory	Faculty	3	2	1	-
Four	Second Semester	PP 805	Pharmacotherapy of Critical Care Patients	Compulsory	Faculty	3	2	1	-
Four	Second Semester	PB 804	Clinical Biochemistry	Compulsory	Faculty	3	2	1	-
Four	Second Semester	PM 805	Public Health	Compulsory	Faculty	2	2	-	-
Four	Second Semester	PC 809	Quality Control and pharmaceutical analysis	Compulsory	Faculty	3	2	1	-
Five	First Semester	PP 906	Pharmacotherapy of Endocrine and Renal Disorders	Compulsory	Faculty	3	2	1	-



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Five	First Semester	PP 907	Pharmacotherapy of Cardiovascular Diseases	Compulsory	Faculty	3	2	1	-
Five	First Semester	PM 906	Biotechnology	Compulsory	Faculty	3	2	1	-
Five	First Semester	PP 908	Pharmacotherapy of Neuropsychiatric Diseases	Compulsory	Faculty	3	2	1	-
Five	First Semester	PB 905	Clinical Nutrition	Compulsory	Faculty	2	1	1	-
Five	First Semester	PO 906	Drug Information	Compulsory	Faculty	2	1	1	-
Five	First Semester	NP 901	Drug Marketing & Pharmacoeconomics	Compulsory	Faculty	2	2	-	-
Five	First Semester	UR4	Entrepreneurship	Compulsory	University	1	1	-	-
Five	Second Semester	PO 007	Clinical Toxicology	Compulsory	Faculty	3	2	1	-
Five	Second Semester	PP 009	Pharmacotherapy of Dermatological, Reproductive and Musculoskeletal Diseases	Compulsory	Faculty	2	1	1	-
Five	Second Semester	PP 010	Pharmacotherapy of Pediatric Diseases	Compulsory	Faculty	3	2	1	-
Five	Second Semester	PP 011	Pharmacotherapy of Oncological Diseases and Radiopharmacy	Compulsory	Faculty	3	2	1	-
Five	Second Semester	PP 012	Pharmacotherapy of Gastrointestinal Diseases	Compulsory	Faculty	3	2	1	-
Five	Second Semester	PP 013	Pharmacotherapy of Respiratory Diseases	Compulsory	Faculty	2	1	1	-
Five	Second Semester	PP 014	Clinical Research and Pharmacovigilance	Compulsory	Faculty	1	1	-	-





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Level	Semester	Course Code	Course Title	Course Type (Compulsory / Elective)	Requirement Category/ Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Four/Five	First/Second	PC E01	Drug Design	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PC E02	Advanced Medicinal Chemistry	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PC E03	Advanced Pharmaceutical Analysis- Spectroscopy	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PC E04	Therapeutic Drug Monitoring	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PC E05	Green Chemistry	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PC E06	Combinatorial Chemistry and Quantum Mechanics	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PC E07	Modern Trends in Drug Synthesis	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PG E01	Complementary Therapies	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PG E02	Chromatography and Separation Techniques	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PG E03	Biotechnology of medicinal plants	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PG E04	Forensic Pharmacognosy	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PT E01	Good Manufacturing Practices	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PT E02	Cosmetic Preparations	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PT E03	Medical devices	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PM E01	Infection control and antimicrobial Stewardship	Elective	Faculty	2	1	1	-



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Four/Five	First/Second	PM E02	Bioinformatics	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PO E01	Biological Standardization	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PO E02	Geriatric pharmacy	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PO E03	Pharmacogenetics of drug metabolism and transport	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PP E01	Interprofessional skills	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PP E02	Advanced Pharmacoeconomics	Elective	Faculty	2	1	1	-
Four/Five	First/Second	PB E01	Cancer Biology	Elective	Faculty	2	1	1	-
Four/Five	First/Second	NP E01	Scientific Writing	Elective	Faculty	2	1	1	-

#### 4. Academic Standards

- **Adopted Academic Standards (NARS/ARS): NARS**  
\* When adopting ARS: The matrix of the academic reference standards (ARS) with the national academic reference standards (NARS) must be attached
- **Date of Adoption of Standards in the governing Council: 12/10/2018**  
\* Decision/Minutes of the governing Council to be attached

**[Decision of the governing Council to be attached \(Link\)](#)**

5. Matrix of Academic Standards (Program Outcomes POs) with Courses

course name		course code	DMAIN 1- FUNDAMENTAL KNOWLED							DOMAIN 2- PROFESSIONAL AND ETHICAL PRACTICE												DOMAIN 3 - PHARMACEUTICAL CARE						DOMAIN 4- PERSONAL PRACTICE																		
			(1-1)							(2-1)		(2-2)				(2-3)		(2-4)				(2-5)		(2-6)		(3-1)				(3-2)				(4-1)		(4-2)		(4-3)								
			1-1-1	1-1-2	1-1-3	1-1-4	1-1-5	1-1-6	1-1-7	2-1-1	2-1-2	2-1-3	2-2-1	2-2-2	2-2-3	2-2-4	2-3-1	2-3-2	2-4-1	2-4-2	2-4-3	2-4-4	2-5-1	2-5-2	2-5-3	2-6-1	2-6-2	3-1-1	3-1-2	3-1-3	3-1-4	3-2-1	3-2-2	3-2-3	3-2-4	3-2-5	3-2-6	4-1-1	4-1-2	4-1-3	4-2-1	4-2-2	4-3-1	4-3-2		
1	Pharmaceutical Analytical Chemlstry I	PC 101	X		X							X		X	X	X																				X			X	X	X					
2	Pharmaceutical Organic Chemlstry I	PC 102	X		X							X		X																					X											
3	Pharmacy Orientation	PT 101	X	X					X																								X						X			X				
4	Mediclnal Plants	PG 101	X		X		X					X	X			X																								X	X		X			
5	Medical Terminology	MD 101		X																			X																	X			X			
6	Mathematics and Biostatstics	MS 101			X		X	X	X						X											X	X										X									
7	Psychology	UR1	X				X																																				X			
8	Pharmaceutical Analytical Chemlstry II	PC 203	X		X							X		X	X	X																					X				X	X				
9	Pharmaceutical Organic Chemlstry II	PC 204	X		X							X		X										X												X							X			
10	Cell Biology	PB 201	X	X			X									X	X																			X	X			X			X			
11	Anatomy& Histology	MD 202	X	X					X							X																									X					
12	Physical Pharmacy	PT 202	X									X																										X					X			
13	Pharmacognosy I	PG 202	X	X	X	X						X	X			X							X													X			X				X			
14	Social Issues	UNVS I01	X							X	X																																X	X		
15	Information Technology	UR2	X					X						X										X													X			X				X		
16	Pharmaceutical Organic Chemlstry-III	PC 305			X							X		X										X												X								X		
17	Biochemlstry I	PB302	X			X						X															X														X			X		
18	Pharmacognosy II	PG 303	X	X	X	X						X	X			X																					X			X				X		
19	Physiology and pathophysiology	MD 303	X				X					X															X				X										X	X			X	
20	Pharmaceutical dosage forms I	PT 303	X		X										X																						X		X						X	
21	Communication and presentation Skills	UR3						X				X																									X	X		X	X	X	X	X		
22	Basic Pharmacology	PO 401	X			X															X		X					X								X				X					X	
23	General Microbiology and Immunology	PM 401	X	X			X																X	X					X	X							X	X							X	
24	Instrumental Analysis	PC406	X		X							X		X	X	X	X																				X	X			X	X			X	
25	Pathology	MD 404		X		X															X																				X				X	
26	Pharmaceutical Dosage Forms-II	PT 404	X		X										X																								X	X					X	
27	Biochemlstry II	PB 403	X				X	X								X	X	X										X		X	X						X	X		X	X	X	X	X	X	
28	Pharmacology –I	PO 502				X	X													X								X			X	X					X			X						
29	Pharmaceutical Microbiology and Antimicrobials	PM 502	X	X	X	X							X		X		X											X	X	X						X			X						X	
30	Pharmaceutical Dosage Forms-III	PT 505	X		X										X																											X				X

course name		course  code	DOMAIN 1- FUNDAMENTAL KNOWLEDGE							DOMAIN 2- PROFESSIONAL AND ETHICAL PRACTICE												DOMAIN 3 - PHARMACEUTICAL CARE						DOMAIN 4- PERSONAL PRACTICE																		
			(1-1)							(2-1)		(2-2)			(2-3)		(2-4)			(2-5)		(2-6)		(3-1)			(3-2)			(4-1)		(4-2)		(4-3)												
			1-1-1	1-1-2	1-1-3	1-1-4	1-1-5	1-1-6	1-1-7	2-1-1	2-1-2	2-1-3	2-2-1	2-2-2	2-2-3	2-2-4	2-3-1	2-3-2	2-4-1	2-4-2	2-4-3	2-4-4	2-5-1	2-5-2	2-5-3	2-6-1	2-6-2	3-1-1	3-1-2	3-1-3	3-1-4	3-2-1	3-2-2	3-2-3	3-2-4	3-2-5	3-2-6	4-1-1	4-1-2	4-1-3	4-2-1	4-2-2	4-3-1	4-3-2		
31	Pharmaceutical Technology	PT 506	X					X	X					X	X																					X							X			
32	Phytochemistry-I	PG 504	X		X	X						X	X			X																			X		X			X			X			
33	Hospital Pharmacy	PP 501	X	X															X															X	X	X							X			
34	Pharmacology-II	PO 603				X													X								X			X	X				X								X			
35	Phytochemistry-II	PG 605	X		X	X						X	X			X						X														X		X					X			
36	Parasitology & Virology	PM 603	X	X			X	X	X											X									X	X	X					X		X						X		
37	community Pharmacy Practice	PP 602	X			X	X					X																						X		X	X							X		
38	Biopharmaceutics and Pharmacokinetics	PT 607												X					X								X									X		X					X			
39	First Aid and Basic Life Support	MD 605	X							X							X	X																X									X			
40	Pharmacology-III	PO 704				X													X								X												X				X			
41	Medicinal Chemistry-I	PC 707	X	X		X		X								X			X			X								X	X			X	X		X		X					X		
42	Advanced Drug Delivery Systems	PT 708			X									X													X										X		X					X		
43	Clinical Pharmacy Practice	PP 703				X	X												X								X							X		X				X				X		
44	Medical Microbiology and Immunological disorders	PM 704	X																									X	X	X							X		X					X		
45	Phytotherapy	PG 706	X		X	X	X					X				X																			X				X		X			X		
46	Pharmacy Legislation and practice ethics	PT 709	X							X							X																				X							X		
47	Medicinal Chemistry-II	PC 808	X	X		X		X											X			X										X	X			X	X		X		X			X		
48	Advanced Pharmacotherapy and Therapeutics	PO 805					X												X																		X						X			
49	Clinical Pharmacokinetics	PP 804	X				X							X													X								X		X							X		
50	Pharmacotherapy of Critical Care Patients	PP 805	X			X			X				X						X								X								X		X							X		
51	Clinical Biochemistry	PB 804	X	X				X								X	X					X	X								X			X	X		X	X		X	X	X	X		X	
52	Public Health	PM 805	X				X	X		X		X																X		X					X	X	X		X							
53	Quality Control and pharmaceutical analysis	PC 809	X	X	X	X		X				X			X	X	X					X	X													X				X	X	X	X		X	
54	Pharmacotherapy of Endocrine and Renal Disorders	PP 906	X					X											X								X								X	X		X							X	
55	Pharmacotherapy of Cardiovascular Diseases	PP 907	X			X			X											X														X			X								X	
56	Biotechnology	PM 906	X	X	X			X				X	X	X																					X			X		X	X				X	
57	Pharmacotherapy of Neuropsychiatric Diseases	PP 908	X			X		X												X														X			X		X						X	
58	Clinical Nutrition	PB 905	X	X			X	X												X			X											X			X			X					X	
59	Drug Information	PO 906						X														X	X											X							X				X	
60	Drug Marketing & Pharmacoeconomics	NP 901	X					X	X	X										X							X	X								X	X								X	
61	Entrepreneurship	UR5	X																																		X	X	X							
62	Clinical Toxicology	PO 007						X													X															X	X						X	X		
63	Pharmacotherapy of Dermatological, Reproductive and Musculoskeletal Diseases	PP 009	X			X			X											X								X								X		X								X

course name		course code	DMAIN 1- FUNDAMENTAL KNOWLED							DOMAIN 2- PROFESSIONAL AND ETHICAL PRACTICE												DOMAIN 3 - PHARMACEUTICAL CARE						DOMAIN 4- PERSONAL PRACTICE																				
			(1-1)							(2-1)			(2-2)			(2-3)		(2-4)			(2-5)			(2-6)		(3-1)				(3-2)		(4-1)			(4-2)		(4-3)											
			1-1-1	1-1-2	1-1-3	1-1-4	1-1-5	1-1-6	1-1-7	2-1-1	2-1-2	2-1-3	2-2-1	2-2-2	2-2-3	2-2-4	2-3-1	2-3-2	2-4-1	2-4-2	2-4-3	2-4-4	2-5-1	2-5-2	2-5-3	2-6-1	2-6-2	3-1-1	3-1-2	3-1-3	3-1-4	3-2-1	3-2-2	3-2-3	3-2-4	3-2-5	3-2-6	4-1-1	4-1-2	4-1-3	4-2-1	4-2-2	4-3-1	4-3-2				
64	Pharmacotherapy of Pediatric Diseases	PP 010	X					X													X								X								X	X		X						X		
	Pharmacotherapy of Oncological Diseases and Radiopharmacy	PP 011	X					X													X								X								X	X		X						X		
65																																																
66	Pharmacotherapy of Gastrointestinal Diseases	PP 012	X					X													X								X								X	X		X						X		
	Pharmacotherapy of Respiratory Diseases	PP 013	X					X													X								X								X	X		X						X		
68	Clinical Research and Pharmacovigilance	PP 014	X					X	X																X	X										X	X		X	X							X	
69	First Field Traning	-		X		X			X											X		X						X	X								X	X	X	X	X		X	X				X
1	Drug Design	PC E01	X							X					X						X		X																					X		X		
2	Advanced Medicinal Chemistry	PC E02				X			X																	X															X		X			X		
3	Advanced Pharmaceutical Analysis-Spectroscopy	PC E03	X		X								X		X	X	X	X							X														X	X			X	X	X			
4	Therapeutic Drug Monitoring	PC E04	X	X		X	X	X	X					X	X	X	X				X	X						X											X	X			X	X	X			
5	Green chemistry	PC E05	X		X								X		X		X	X																					X	X			X	X				
6	Combinatorial Chemistry and Quantum Mechanics	PC E06	X		X								X		X																										X					X		
7	Modern Trends In Drug Synthesis	PC E07	X		X								X		X																										X					X		
8	Complementary therapies	PG E01	X		X	X	X						X				X																				X				X		X			X		
9	Chromatography and separation techniques	PG E02	X		X								X				X	X																							X					X		
10	Biotechnology of medicinal plants	PG E03	X		X	X							X	X			X																						X							X		
11	Forensic Pharmacognosy	PG E04			X															X		X																			X					X		
12	Good manufacturing practices	PT E01	X		X				X					X		X																									X	X					X	
13	Cosmetic Preparations	PT E02	X		X								X			X																									X						X	
14	Medical devices	PT E03	X													X		X																							X						X	
15	Infection control and antimicrobial stewardship	PM E01	X	X		X	X			X								X			X									X	X							X	X	X		X					X	
16	Bioinformatics	PM E02	X				X	X			X										X				X			X											X					X			X	
17	Biological Standardization	PO E01											X			X												X															X					
18	Geriatric pharmacy	PO E02					X														X																						X				X	
19	Pharmacogenetics of drug metabolism and transport	PO E03				X															X			X				X										X				X						
20	Interprofessional skills	PP E01						X																														X		X	X					X		
21	Advanced Pharmacoeconomics	PP E02		X			X	X													X								X										X								X	
22	Cancer Biology	PB E01	X				X										X								X										X						X		X	X	X	X		
23	Scientific Writing	NP E01	X	X			X							X																X	X							X				X						X

## Advanced experiential training and research project

[illegible]



## **Faculty of Pharmacy Bachelor in Pharmacy (Pharm D) Clinical Pharmacy Program Program Specification Academic Year:2025/2026**

### **6. Teaching and Learning strategies/methods to achieve Program Outcomes:**

1. Interactive Lecturing
2. Practical and Tutorial-Based Learning
3. Blended Learning (using Technology and AI)
4. Interactive Learning (Collaborative / Reciprocal / Peer Learning /3D Modelling /Gamification)
5. Self-Directed and Lifelong Learning (Research & Presentations)
6. Thinking and Analytical-Based Learning (Simulation – Case Study – Problem-Solving – Critical Thinking)
7. Field Training

### **7. Student Assessment strategies/methods to verify and ensure students' acquisition of Program Outcomes:**

Different assessment methods are used within this program including both summative and formative assessments:

#### **1. Summative assessment**

- Written examinations
- Practical assessments
- Oral examination.
- Course work assessments.

The final grade of the course consists of the sum of the semester work + practical (if present) + written + oral (if present) examination as shown in the bylaw. The minimum pass rate in any course is 60% of the total grades of this course. The student will not be successful in any course unless he/she gets 30% of the final written exam score.

- Semesters work exams are held throughout the semester according to the timetable.
- Practical exams are held throughout the semester according to the timetable.



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- Final written and oral exams are held by the start of the 15<sup>th</sup>-16<sup>th</sup> week of the semester and can be modified according to the academic year plan of the higher education ministry.
- Each course is assigned a total of 100 points (marks)
- Performance of a student is measured by the Grade Point Average (GPA) value he/she scores in an individual course.

### 2. Formative assessments

Formative assessments are used to recognize students' areas of strength and weakness and focus on those that require improvement. Formative assessments are implemented in all courses and training sessions and usually have no point value. Examples on formative assessments:

- Case study
- Quiz (on My Mans)
- Minute paper (Quiz)
- Reflective writing





# **Faculty of Pharmacy** **Bachelor in Pharmacy (Pharm D) Clinical Pharmacy program** **Program Specification** **Academic Year:2025/2026**

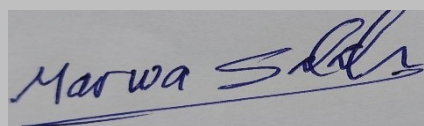
## **8. Program Key Performance Indicators (if any)**

No.	Performance Indicator	Target Level	Method	Measurement
1.	Number of students enrolled in the program (total – newly admitted) over the last three years	Students	Enrollment records, admission statistics	Annually
2.	Pass rate of first-year students (newly admitted) over the last three years	Students	Academic performance tracking	Annually
3.	Percentage of students completing the program within the minimum duration over three years	Students	Graduation records	Annually
4.	Ratio of international students to local (Egyptian) students over the last three years	Students	Enrollment database	Annually
5.	Percentage of students transferred in or out of the program over the last three years	Students	Registrar transfer data	Annually
6.	Student satisfaction with program courses over the last 3 years	Students	Student surveys	Twice / year
7.	Student satisfaction with facilities supporting the education process and administrative aspects yearly	Students	Student surveys	Annually
8.	Employer satisfaction with graduates and their skills over the last 3 years	Employer	Employer feedback surveys	Annually
9.	Student satisfaction with academic advising over the last three years	Students	Student surveys	Annually

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No.	Performance Indicator	Target Level	Method	Measurement
10.	Percentage of students participating in extracurricular activities relative to total enrollment over the last three years	Students	Student affairs records	Annually
11.	Student-to-faculty ratio in the program over the last three years	Program Coordinator	Institutional data	Annually
12.	Percentage of faculty members in the program who received training on assessment, evaluation, and question banks and quality assurance, over the last three years.	Faculty members	Faculty development records	Annually
13.	Percentage increase in program revenues over the last three years.	Program Coordinator	Financial reports	Annually

**Name & Signature**  
**Program Coordinator**



**Prof Dr. Marwa Salah El-din El-Dahan**

**Name & Signature**  
**Vice Dean for Education and Student Affairs**



**Prof. Dr. Jenny Jehan**