Programme Specification

(2025-2026)

1. Basic Information

Program Title:	**Bachelor of Pharmacy (Pharm D Clinical Pharmacy)**
Total number of credit points of the program:	**590**
Number of academic years (expected program duration):	**5 academic years + 1 internship year**
Department (s) Participating (if any) in teaching the program:	• Pharmaceutical Chemistry (PMC) • Pharmacology (PCL) and Biochemistry (PBC) • Pharmaceutics & Pharmaceutical Technology (PCT) • Microbiology (PMB) and Pharmacognosy (PCG) • Clinical Pharmacy Practice (PCP).
Faculty:	**Faculty of Pharmacy**
University:	**British University in Egypt**
Program majors/divisions/tracks/specialties in the final year (if any):	**Not available**
Partnerships with other parties and the nature of each (if any):	**Not available**
Name of the program coordinator (attach the assignment decision):	**Associate Professor. Marwa Hamza**
Program Specification Approval Date:	**9/30/2025**

Council responsible for Program Specification Approval (Attach the Decision / Minutes):	Faculty council minutes

2. Program Aims

The program is structured and taught in such a way to graduate pharmacists able to:

- Focus on patient-centred care, medication therapy management, and promoting health and wellness at individual and population levels.
- Integrate medical, pharmacological, and therapeutic expertise into pharmacy practice to optimize medication use and improve patient outcomes.
- Develop self-awareness, leadership, innovation, and entrepreneurial skills to prepare graduates for advanced clinical and academic roles.
- Equip graduates to excel in clinical settings such as hospitals, specialized clinics, and ambulatory care, while also enabling non-clinical opportunities in the pharmaceutical industry, regulatory agencies, and academia.
- Show Enhanced Competitiveness through Utilization of innovative teaching methods and hands-on training in clinical pharmacy practices to ensure graduates are highly employable at local, regional, and global levels.
- Participate in health awareness campaigns, environmental sustainability efforts, and initiatives to improve healthcare access, delivering economic and public health benefits.
- Fulfil the attributes required by academic standard
- Promote quality standards through interactive learning, clinical simulations, self-directed study, and interdisciplinary collaboration.

3. Program Structure (Curriculum)

- **Program Components**

Requirement Category/Type		Number of Modules	Number of Credit Points	Number of Credit Hours	Percentage from the total number of points
University Requirements		2	20	6	3.4%
Faculty Requirements (if applicable)		1	10	3	1.7%
Program Requirements		60 Core 4 optional	560	168	94.9%
Requirements of the majors/ divisions/ tracks/ specializations in the final year (if any)		Not available	Not available	Not available	Not available
Other requirements	Field Training		No credit points (100 hrs)	No credit Hours (100 hrs)	---
	Graduation Project		---	---	---
	Other (to be mentioned)		---	---	---
Additional year after completing the programme			No credit points (9 months)	No credit Hours (9 months)	---
Total Compulsory Modules		63	560	168	94.9%
Elective Modules		4	30	9	5.1%

Total	**67**	**590**	**177**	**100%**

- **Program modules according to the expected study plan**

Academic Level	Semester	Module Code	Module Title	Module Type (Compulsory / Elective)	Requirement Category/ Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Degree Year 1	Semester One	PHENGL01	English for Academic Purposes	Core	University	3/10	3	-	-
Degree Year 1	Semester One	MTH101	Mathematics	Core	Faculty	3/10	2	1	-
Degree Year 1	Semester One	PMCc101	Pharmaceutical Analytical Chemistry-1	Core	Specialty	3/10	2	1	-
Degree Year 1	Semester One	PMCc102	Pharmaceutical Organic Chemistry-1	Core	Specialty	3/10	2	1	-
Degree Year 1	Semester One	PCLc101	Integrated Body System-1	Core	Specialty	3/10	2	1	-
Degree Year 1	Semester One	PCTc101	Pharmacy Orientation, Legislation & Ethics	Core	Specialty	1.5/5	1 + 1*	-	-
Degree Year 1	Semester Two	PHENGL02	English and Academic Writing	Core	University	3/10	3	-	-
Degree Year 1	Semester Two	PMCc103	Pharmaceutical Organic Chemistry-2	Core	Specialty	3/10	2	1	-
Degree Year 1	Semester Two	PCGc101	Pharmacognosy-1	Core	Specialty	3/10	2	1	-

Academic Level	Semester	Module Code	Module Title	Module Type (Compulsory / Elective)	Requirement Category/ Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Degree Year 1	Semester Two	PCTc102	Physical Pharmacy	Core	Specialty	3/10	2	1	-
Degree Year 1	Semester Two	PCLc102	Integrated Body System-2	Core	Specialty	3/10	2	1	-
Degree Year 1	Semester Two	PCPc101	Scientific Thinking & Communication Skills	Core	Specialty	1.5/5	1 + 1*	-	-
Degree Year 1	Semester Two	PCPc102	Human Rights & Fighting Corruption	Core	Specialty	1.5/5	1 + 1*	-	-
Degree Year 2	Semester One	PCPc203	Psychology	Core	Specialty	1.5/5	1	1	-
Degree Year 2	Semester One	PBCc201	Biochemistry-1	Core	Specialty	3/10	2	1	-
Degree Year 2	Semester One	PCTc203	Pharmaceutics-1	Core	Specialty	3/10	2	1	-
Degree Year 2	Semester One	PCGc202	Pharmacognosy-2	Core	Specialty	3/10	2	1	-
Degree Year 2	Semester One	PCLc203	Integrated Body System-3	Core	Specialty	3/10	2	1	-
Degree Year 2	Semester One	PMCc204	Pharmaceutical Analytical Chemistry-2	Core	Specialty	3/10	2	1	-
Degree Year 2	Semester Two	PCLc204	Pharmacology-1	Core	Specialty	3/10	2	1	-
Degree Year 2	Semester Two	PMBc201	General Microbiology & Immunology	Core	Specialty	3/10	2	1	-
Degree Year 2	Semester Two	PMCc205	Instrumental Analysis	Core	Specialty	3/10	2	1	-
Degree Year 2	Semester Two	PCTc204	Pharmaceutics-2	Core	Specialty	3/10	2	1	-

Academic Level	Semester	Module Code	Module Title	Module Type (Compulsory / Elective)	Requirement Category/ Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Degree Year 2	Semester Two	PBCc202	Biochemistry-2	Core	Specialty	3/10	2	1	-
Degree Year 2	Semester Two	PMCc206	Pharmaceutical Organic Chemistry-3	Core	Specialty	3/10	2	1	-
Degree Year 3	Semester One	PMBc302	Pharmaceutical Microbiology	Core	Specialty	3/10	2	1	-
Degree Year 3	Semester One	PCGc303	Phytochemistry-1	Core	Specialty	3/10	2	1	-
Degree Year 3	Semester One	PBCc303	Clinical Biochemistry	Core	Specialty	3/10	2	1	-
Degree Year 3	Semester One	PCLc305	Pharmacology-2	Core	Specialty	3/10	2	1	-
Degree Year 3	Semester One	PCTc305	Pharmaceutics-3	Core	Specialty	3/10	2	1	-
Degree Year 3	Semester One	PMBc303	Public Health & Preventive Medicine	Core	Specialty	1.5/5	1	1	-
Degree Year 3	Semester One	PCPc304	First Aid & Basic Life Support (BLS)	Core	Specialty	1.5/5	1	1	-
Degree Year 3	Semester Two	PMBc304	Medical Microbiology-1 (Parasitology & Virology)	Core	Specialty	3/10	2	1	-
Degree Year 3	Semester Two	PMCc307	Medicinal Chemistry-1	Core	Specialty	3/10	2	1	-
Degree Year 3	Semester Two	PCPc305	Pharmacotherapy of Cardiovasc	Core	Specialty	3/10	2	1	-

Academic Level	Semester	Module Code	Module Title	Module Type (Compulsory / Elective)	Requirement Category/ Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
			ular Diseases						
Degree Year 3	Semester Two	PCPc306	Pharmacotherapy of Respiratory Diseases	Core	Specialty	1.5/5	1	1	-
Degree Year 3	Semester Two	PCGc304	Phytochemistry-2	Core	Specialty	1.5/5	1	1	-
Degree Year 3	Semester Two	PCLc306	Pharmacology-3	Core	Specialty	3/10	2	1	-
Degree Year 3	Semester Two	PCPc307	Community Pharmacy Practice	Core	Specialty	3/10	2	1	-
Degree Year 4	Semester One	PCLc407	Toxicology	Core	Specialty	3/10	2	1	-
Degree Year 4	Semester One	PCTc406	Biopharmaceutics & Pharmacokinetics	Core	Specialty	3/10	2	1	-
Degree Year 4	Semester One	PCPc408	Pharmacotherapy of Endocrine and Renal Diseases	Core	Specialty	3/10	2	1	-
Degree Year 4	Semester One	PCPc409	Pharmacotherapy of Gastrointestinal Diseases	Core	Specialty	3/10	2	1	-
Degree Year 4	Semester One	PMCc408	Medicinal Chemistry-2	Core	Specialty	3/10	2	1	-
Degree Year 4	Semester One	PXXcO??	Optional-1	Optional	Specialty	3/10	2	1	-
Degree Year 4	Semester Two	PMBc405	Medical Microbiology-2 (Bacteriology & Mycology)	Core	Specialty	3/10	2	1	-

Academic Level	Semester	Module Code	Module Title	Module Type (Compulsory / Elective)	Requirement Category/ Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Degree Year 4	Semester Two	PCTc407	Pharmaceutical Technology	Core	Specialty	3/10	2	1	-
Degree Year 4	Semester Two	PCPc410	Hospital Pharmacy	Core	Specialty	3/10	2	1	-
Degree Year 4	Semester Two	PCTc408	Dosage Form Design	Core	Specialty	3/10	2	1	-
Degree Year 4	Semester Two	PCPc411	Pharmacotherapy of Neuropsychiatric Diseases	Core	Specialty	3/10	2	1	-
Degree Year 4	Semester Two	PXXcO??	Optional-2	Optional	Specialty	3/10	2	1	-
Degree Year 5	Semester One	PCPc512	Drug Information & Pharmacovigilance	Core	Specialty	3/10	2	1	-
Degree Year 5	Semester One	PMBc506	Biotechnology	Core	Specialty	1.5/5	1	1	-
Degree Year 5	Semester One	PCGc505	Phytotherapy & Aromatherapy	Core	Specialty	1.5/5	1	1	-
Degree Year 5	Semester One	PCPc513	Pharmacotherapy of Dermatological, Reproductive and Musculoskeletal Diseases	Core	Specialty	3/10	2	1	-
Degree Year 5	Semester One	PCPc514	Pharmacotherapy of Paediatric Diseases	Core	Specialty	3/10	2	1	-

Academic Level	Semester	Module Code	Module Title	Module Type (Compulsory / Elective)	Requirement Category/ Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Degree Year 5	Semester One	PCPc515	Entrepreneurship	Core	Specialty	1.5/5	1	1	-
Degree Year 5	Semester One	PCLc508	Research Methodology & Biostatistics	Core	Specialty	3/10	2	1	-
Degree Year 5	Semester One	PXXcO??	Optional-3	Optional	Specialty	3/10	1	1	-
Degree Year 5	Semester Two	PCPc516	Marketing & Pharmacoeconomics	Core	Specialty	3/10	2	1	-
Degree Year 5	Semester Two	PCPc517	Clinical Pharmacokinetics	Core	Specialty	3/10	2	1	-
Degree Year 5	Semester Two	PBCc504	Clinical Nutrition	Core	Specialty	1.5/5	1	1	-
Degree Year 5	Semester Two	PCPc518	Pharmacotherapy of Oncological Diseases and Radiopharmacy	Core	Specialty	3/10	2	1	-
Degree Year 5	Semester Two	PCPc519	Pharmacotherapy of Critical Care Patients	Core	Specialty	1.5/5	1	1	-
Degree Year 5	Semester Two	PCPc520	Clinical Pharmacy Practice	Core	Specialty	3/10	2	1	-
Degree Year 5	Semester Two	PMCc509	Quality Control of Pharmaceuticals	Core	Specialty	1.5/5	1	1	-
Degree Year 5	Semester Two	PXXcO??	Optional-4	Optional	Specialty	1.5/5	1	1	-

A list of all the available Optional Modules (O) are presented as follows:

The Faculty of Pharmacy offers optional modules from which the students have the choice to select 30 credit points equivalent to 9 credit hours.

Academic Level	Semester	Module Code	Module Title	Module Type (Compulsory / Elective)	Requirement Category / Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Degree Year 4	Semester one / Two	PMCcO 10	Advanced Pharmaceutical Analysis	Optional	Specialty	3/10	2	1	-
Degree Year 4	Semester one / Two	PMCcO 13	Drug Design	Optional	Specialty	3/10	2	1	-
Degree Year 4	Semester one / Two	PBCcO 05	Molecular Biology & Gene Therapy	Optional	Specialty	3/10	2	1	-
Degree Year 4	Semester one / Two	PCLcO 09	Biological Screening of Drug Activities	Optional	Specialty	3/10	2	1	-
Degree Year 4	Semester one / Two	PCLcO 12	Neuroscience-1	Optional	Specialty	3/10	2	1	-
Degree Year 4	Semester one / Two	PCTcO 09	Advanced Drug Delivery & Nanopharmaceuticals	Optional	Specialty	3/10	2	1	-
Degree Year 4	Semester one / Two	PCTcO 10	Cosmetics	Optional	Specialty	3/10	2	1	-
Degree Year 4	Semester one / Two	PCPcO 23	Palliative Care	Optional	Specialty	3/10	2	1	-
Degree Year 5	Semester one / Two	PMCcO 11	Radiopharmaceutical Chemistry	Optional	Specialty	1.5/5	1	0.5	-

Academic Level	Semester	Module Code	Module Title	Module Type (Compulsory / Elective)	Requirement Category / Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Degree Year 5	Semester one / Two	PMCcO 12	Nanochemistry	Optional	Specialty	1.5/5	1	0.5	-
Degree Year 5	Semester one / Two	PCLcO 10	High-Throughput Screening of Drug activities	Optional	Specialty	1.5/5	1	0.5	-
Degree Year 5	Semester one / Two	PCLcO 11	Evaluation of Safety of Drugs	Optional	Specialty	1.5/5	1	0.5	-
Degree Year 5	Semester one / Two	PCLcO 13	Neuroscience-2	Optional	Specialty	1.5/5	1	0.5	-
Degree Year 5	Semester one / Two	PCTcO 11	Veterinary Pharmacy	Optional	Specialty	1.5/5	1	0.5	-
Degree Year 5	Semester one / Two	PMBcO 07	Infection Control & Antimicrobial Stewardship	Optional	Specialty	1.5/5	1	0.5	-
Degree Year 5	Semester one / Two	PMBcO 08	Biopharmaceuticals & Immunological Products	Optional	Specialty	1.5/5	1	0.5	-
Degree Year 5	Semester one / Two	PMBcO 09	Bioinformatics, Genomics & Pharmacomicrobiomics	Optional	Specialty	1.5/5	1	0.5	-
Degree Year 5	Semester one / Two	PMBcO 10	Diagnostic Microbiology	Optional	Specialty	1.5/5	1	0.5	-

Academic Level	Semester	Module Code	Module Title	Module Type (Compulsory / Elective)	Requirement Category / Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Degree Year 5	Semester one / Two	PCGcO 06	Aromatherapy & Herbal Cosmetics	Optional	Specialty	1.5/5	1	0.5	-
Degree Year 5	Semester one / Two	PCPcO 21	Health Media	Optional	Specialty	1.5/5	1	0.5	-
Degree Year 5	Semester one / Two	PCPcO 22	Precision Medicine	Optional	Specialty	1.5/5	1	0.5	-

The optional modules will be offered for Degree Years 4 and 5 based on Faculty council selection from the previous table. The faculty also can add other optional module(s) after approval of the University council provided that the necessary justifications were provided.

4. Academic Standards

- **Adopted Academic Standards (NARS/ARS): NARS**

IV National academic reference standards

A. Attributes from NARS

National Academic Reference Standards (NARS) for Pharmacy Education Attributes of the Pharmacy Graduates Pharmacy graduates work in a multi-disciplinary profession to improve the quality of life of individuals and communities. Based on multi-national requirements, the pharmacy graduate must develop competencies of a learner, health caregiver and provider, professional, collaborator, manager, promoter, problem solver, educator and communicator, self-aware, leader, and innovator. Pharmacy graduates must acquire the necessary attributes related to various pharmacy aspects including drug-oriented and patient-oriented pharmacy disciplines to actively participate in pharmaceutical care. Pharmacy graduates must be able to:

1. Educate and counsel individuals and communities to participate in optimizing therapeutic outcomes and minimizing the incidence of illness of individuals and populations.
2. Practice and perform responsibilities and authorities legally, professionally, and ethically respecting patients' rights.
3. Utilize evidence-based data to deliver contemporary pharmaceutical products and pharmacy services.
4. Assure the quality of pharmaceutical materials and products.
5. Apply integrated evidence-based pharmaceutical and clinical information in assessing the appropriateness, effectiveness, and safety of medications.
6. Contribute effectively in planning and conducting research using appropriate methodologies.
7. Work collaboratively and share therapeutic decision-making as a member of an interprofessional health care team.
8. Demonstrate effective communication, leadership, business administration, and entrepreneurial skills.
9. Work as a life-long learner for continuous professional improvement and demonstrate capabilities of performance appraisal and self-assessment.

B. Competencies of the Pharmacy Graduates according to National Academic Reference Standards

Four Competency Domains are included in these competency-based National Academic Reference Standards for Pharmacy Education. These domains are designed to cover all essentials for practicing pharmacy profession including both drug-oriented and patient-oriented disciplines. Each domain should be achieved through several competencies ranging from one to six, with a total of twelve competencies for all domains. These competencies are overall broad statements that cover various areas of the graduate performance. Several key elements ranging from two to seven are included in each competency, with a total of forty-two key elements for all competencies. These key elements demonstrate how pharmacy graduate will reflect each competency in practice. The competency domains are the followings:

Domain 1: Fundamental Knowledge

Domain 2: Professional and Ethical Practice

Domain 3: Pharmaceutical Care

Domain 4: Personal Practice

DOMAIN 1- FUNDAMENTAL KNOWLEDGE

1-1 COMPETENCY

Integrate knowledge from basic and applied pharmaceutical and clinical sciences to standardize materials, formulate and manufacture products, and deliver population and patient-centred care.

KEY ELEMENTS

1-1-1- Demonstrate understanding of knowledge of pharmaceutical, biomedical, social, behavioural, administrative, and clinical sciences.

1-1-2- Utilize the proper pharmaceutical and medical terms, abbreviations and symbols in pharmacy practice.

1-1-3- Integrate knowledge from fundamental sciences to handle, identify, extract, design, prepare, analyse, and assure quality of synthetic/natural pharmaceutical materials/products.

1-1-4- Articulate knowledge from fundamental sciences to explain drugs' actions and evaluate their appropriateness, effectiveness, and safety in individuals and populations.

1-1-5- Retrieve information from fundamental sciences to solve therapeutic problems.

1-1-6- Utilize scientific literature and collect and interpret information to enhance professional decision.

1-1-7- Identify and critically analyse newly emerging issues influencing pharmaceutical industry and patient health care.

DOMAIN 2: PROFESSIONAL AND ETHICAL PRACTICE

2-1- COMPETENCY

Work collaboratively as a member of an inter-professional health care team to improve the quality of life of individuals and communities and respect patients 'rights.

KEY ELEMENTS

2-1-1- Perform responsibilities and authorities in compliance with the legal and professional structure and role of all members of the health care professional team.

2-1-2- Adopt ethics of health care and pharmacy profession respecting patients' rights and valuing people diversity.

2-1-3- Recognize own personal and professional limitations and accept the conditions of referral to or guidance from other members of the health care team.

2-2- COMPETENCY

Standardize pharmaceutical materials, formulate, and manufacture pharmaceutical products, and participate in systems for dispensing, storage, and distribution of medicines.

KEY ELEMENTS

2-2-1- Isolate, design, identify, synthesize, purify, analyse, and standardize synthetic/natural pharmaceutical materials.

2-2-2- Apply the basic requirements of quality management system in developing, manufacturing, analysing, storing, and distributing pharmaceutical materials/products considering various incompatibilities.

2-2-3- Recognize the principles of various tools and instruments and select the proper techniques for synthesis and analysis of different materials and production of pharmaceuticals.

2-2-4- Adopt the principles of pharmaceutical calculations, biostatistical analysis, bioinformatics, pharmacokinetics, and biopharmaceutics and their applications in new drug delivery systems, dose modification, bioequivalence studies, and pharmacy practice.

2-3- COMPETENCY

Handle and dispose biologicals and synthetic/natural pharmaceutical materials/products effectively and safely with respect to relevant laws and legislations.

KEY ELEMENTS

2-3-1- Handle, identify, and dispose biologicals, synthetic/natural materials, biotechnology-based and radio-labelled products, and other materials/products used in pharmaceutical field.

2-3-2- Recognize and adopt ethical, legal, and safety guidelines for handling and disposal of biologicals, and pharmaceutical materials/products.

2-4- COMPETENCY

Actively share professional decisions and proper actions to save patient's life in emergency situations including poisoning with various xenobiotics, and effectively work in forensic fields.

KEY ELEMENTS

2-4-1- Ensure safe handling/use of poisons to avoid their harm to individuals and communities.

2-4-2- Demonstrate understanding of the first aid measures needed to save patient's life.

2-4-3- Take actions to solve any identified medicine-related and pharmaceutical care problems.

2-4-4- Assess toxicity profiles of different xenobiotics and detect poisons in biological specimens.

2-5- COMPETENCY

Contribute in pharmaceutical research studies and clinical trials needed to authorize medicinal products.

KEY ELEMENTS

2-5-1- Fulfil the requirements of the regulatory framework to authorize a medicinal product including quality, safety, and efficacy requirements.

2-5-2- Retrieve, interpret, and critically evaluate evidence-based information needed in pharmacy profession.

2-5-3- Contribute to planning and conducting research studies using appropriate methodologies.

2-6- COMPETENCY

Perform Pharmacoeconomics analysis and develop promotion, sales, marketing, and business administration skills.

KEY ELEMENTS

2-6-1- Apply the principles of business administration and management to ensure rational use of financial and human resources.

2-6-2- Utilize the principles of drug promotion, sales, marketing, accounting, and Pharmacoeconomics analysis.

DOMAIN 3: PHARMACEUTICAL CARE

3-1- COMPETENCY

Apply the principles of body functions to participate in improving health care services using evidence-based data.

KEY ELEMENTS

3-1-1- Apply the principles of body function and basis of genomics in health and disease states to manage different diseases.

3-1-2- Apply the principles of public health and pharmaceutical microbiology to select and assess proper methods of infection control.

3-1-3- Monitor and control microbial growth and carry out laboratory tests for identification of infections/diseases.

3-1-4- Relate aetiology, epidemiology, pathophysiology, laboratory diagnosis, and clinical features of infections/diseases and their pharmacotherapeutic approaches.

3-2- COMPETENCY

Provide counselling and education services to patients and communities about safe and rational use of medicines and medical devices.

KEY ELEMENTS

3-2-1- Integrate the pharmacological properties of drugs including mechanisms of action, therapeutic uses, dosage, contra-indications, adverse drug reactions and drug interactions.

3-2-2- Apply the principles of clinical pharmacology and pharmacovigilance for the rational use of medicines and medical devices.

3-2-3- Provide evidence-based information about safe use of complementary medicine including phytotherapy, aromatherapy, and nutraceuticals.

3-2-4- Provide information about toxic profiles of drugs and other xenobiotics including sources, identification, symptoms, and management control.

3-2-5- Educate and counsel patients, other health care professionals, and communities about safe and proper use of medicines including OTC preparations and medical devices.

3-2-6- Maintain public awareness on social health hazards of drug misuse and abuse.

DOMAIN 4: PERSONAL PRACTICE

4-1- COMPETENCY

Express leadership, time management, critical thinking, problem solving, independent and team working, creativity and entrepreneurial skills.

KEY ELEMENTS

4-1-1- Demonstrate responsibility for team performance and peer evaluation of other team members, and express time management skills.

4-1-2- Retrieve and critically analyse information, identify and solve problems, and work autonomously and effectively in a team.

4-1-3- Demonstrate creativity and apply entrepreneurial skills within a simulated entrepreneurial activity.

4-2- COMPETENCY

Effectively communicate verbally, non-verbally and in writing with individuals and communities.

KEY ELEMENTS

4-2-1- Demonstrate effective communication skills verbally, non-verbally, and in writing with professional health care team, patients, and communities.

4-2-2- Use contemporary technologies and media to demonstrate effective presentation skills.

4-3- COMPETENCY

Express self-awareness and be a life-long learner for continuous professional improvement.

KEY ELEMENTS

4-3-1- Perform self-assessment to enhance professional and personal competencies.

4-3-2- Practice independent learning needed for continuous professional development.

- **Date of Adoption of Standards in the governing Council: 9/29/2019**

  *** Decision/Minutes of the governing Council to be attached**

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

Compulsory Modules		Part-A-Academic Standards (Domain-1 and Domain-2, Key elements 1-1-1 to 2-6-2)																								
Code	Name	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
PCLc101	Integrated Body System-1	✓	✓																							
PHENGL01	English for Academic Purpose (EAP)	✓																								
MTH101	Mathematics														✓											
PCTc101	Pharmacy Orientation, Legislation & Ethics	✓	✓						✓	✓	✓				✓											
PMCc102	Pharmaceutical Organic Chemistry 1	✓										✓					✓									
PMCc101	Pharmaceutical Analytical Chemistry-1	✓		✓								✓														
PCTc102	Physical Pharmacy	✓		✓		✓																		✓		
PCGc101	Pharmacognosy-1			✓								✓														
PMCc103	Pharmaceutical Organic Chemistry 2	✓										✓														
PCLc102	Integrated Body System-2	✓	✓																							
PCPc102	Human rights and Fighting Corruption	✓								✓	✓															
PHENGL02	English for Academic Writing (EAW)	✓																								
PCPc101	Scientific thinking & Communication skills						✓			✓	✓															
PBCc201	Biochemistry-1	✓														✓										
PCLc203	Integrated Body System-3	✓	✓																							
PMCc204	Pharmaceutical Analytical Chemistry-2	✓		✓								✓				✓										
PCTc203	Pharmaceutics- 1	✓		✓										✓	✓								✓			
PCGc202	Pharmacognosy-2			✓								✓														
PCPc203	Psychology	✓								✓	✓															
PCLc204	Pharmacology-1				✓																					
PMBc201	General Microbiology and Immunology	✓														✓										

Compulsory Modules		Part-A-Academic Standards (Domain-1 and Domain-2, Key elements 1-1-1 to 2-6-2)																								
Code	Name	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
PBCc202	Biochemistry-2	✓					✓									✓							✓			
PMCc206	Pharmaceutical Organic Chemistry 3	✓												✓												
PMCc205	Instrumental Analysis	✓		✓										✓												
PCTc204	Pharmaceutics 2	✓		✓			✓									✓										
PBCc303	Clinical Biochemistry	✓					✓							✓		✓										
PCPc304	First Aid & Basic Life Support (BLS)	✓									✓								✓							
PMBc302	Pharmaceutical Microbiology	✓			✓											✓										
PCTc305	Pharmaceutics 3	✓		✓			✓										✓									
PCLc305	Pharmacology-2				✓															✓						
PCGc303	Phytochemistry-1			✓								✓				✓										
PMBc303	Public health & preventive medicine	✓						✓		✓																
PCPc307	Community Pharmacy Practice	✓	✓						✓	✓	✓									✓						
PCPc306	Pharmacotherapy of Respiratory Diseases				✓	✓				✓										✓						
PMCc307	Medicinal Chemsitry-1	✓	✓									✓		✓		✓	✓						✓			
PMBc304	Medical Microbiology-1 (Parasitology & Virology)	✓																								
PCLc306	Pharmacology-3				✓																					
PCGc304	Phytochemistry-2			✓								✓				✓										
PCPc305	Pharmacotherapy of Cardiovascular Diseases				✓	✓				✓										✓						
PCTc406	Biopharmaceutics & Pharmacokinetics	✓			✓										✓									✓		
PMCc408	Medicinal Chemsitry-2	✓	✓	✓								✓	✓			✓	✓						✓			
PCPc408	Pharmacotherapy of Endocrine and Renal Diseases		✓				✓		✓								✓			✓						

Compulsory Modules		Part-A-Academic Standards (Domain-1 and Domain-2, Key elements 1-1-1 to 2-6-2)																								
Code	Name	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
PCPc409	Pharmacotherapy of Gastrointestinal Diseases	✓			✓	✓	✓	✓		✓										✓						
PCLc407	Toxicology				✓													✓			✓					
PCPc411	Pharmacotherapy of Neuropsychiatric Diseases		✓				✓		✓											✓						
PCTc407	Pharmaceutical Technology	✓		✓			✓							✓												
PMBc405	Medical Microbiology-2 (Bacteriology & Mycology)	✓														✓										
PCTc408	Dosage Form Design	✓		✓									✓		✓								✓	✓		
PCPc410	Hospital Pharmacy		✓				✓		✓				✓				✓			✓						
PCGc505	Phytotherapy & Aromatherapy	✓		✓	✓	✓			✓			✓														
PCPc513	Pharmacotherapy of Dermatological, Reproductive and Musculoskeletal Diseases				✓	✓	✓	✓		✓										✓						
PCPc514	Pharmacotherapy of Paediatric Diseases				✓	✓				✓										✓						
PCPc515	Entrepreneurship							✓			✓														✓	
PMBc506	Biotechnology						✓	✓						✓		✓							✓			
PCPc512	Drug Information & Pharmacovigilance						✓	✓										✓					✓			
PCLc508	Research Methodology & Biostatistics						✓								✓									✓		
PBCc504	Clinical Nutrition	✓						✓															✓			
PCPc517	Clinical Pharmacokinetics	✓				✓									✓											
PCPc520	Clinical Pharmacy Practice				✓										✓					✓			✓			
PCPc516	Marketing & Pharmacoeconomics							✓			✓											✓			✓	✓
PCPc519	Pharmacotherapy of Critical Care Patients					✓														✓						

Compulsory Modules		Part-A-Academic Standards (Domain-1 and Domain-2, Key elements 1-1-1 to 2-6-2)																							
Code	Name	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
PCPc518	Pharmacotherapy of Oncological Diseases and Radio pharmacy					✓														✓						
PMCc509	Quality Control of Pharmaceuticals			✓									✓											✓		

Optional Modules		Part-A-Academic Standards (Domain-1 and Domain-2, Key elements 1-1-1 to 2-6-2)																							
Code	Name	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
PCPcO23	4-optional-Palliative Care		✓					✓	✓	✓									✓							
PCLcO12	4-optional-Neuroscience-I	✓																								
PMCcO13	4-optional-Drug Design			✓								✓														
PCTcO10	4-optional-Cosmetics	✓		✓			✓															✓				
PCLcO09	4-optional-Biological screening of drug activities				✓																		✓	✓		
PMCcO10	4-optional-Advanced Pharmaceutical Analysis			✓								✓	✓			✓										
PCTcO09	4-optional-Advanced Drug Delivery and Nano pharmaceuticals	✓		✓			✓									✓										
PBCcO05	4-optional-Molecular Biology & Gene Therapy	✓									✓			✓		✓							✓			
PCGcO06	5-optional-Aromatherapy & Herbal Cosmetics			✓								✓	✓													
PMBcO10	5-optional-Diagnostic Microbiology	✓															✓									

Optional Modules		Part-A-Academic Standards (Domain-1 and Domain-2, Key elements 1-1-1 to 2-6-2)																								
Code	Name	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
PCLcO11	5-optional-Evaluation of Safety of Drugs	✓			✓																	✓	✓	✓		
PCLcO10	5-optional-High-through-screening of drug activities	✓			✓									✓										✓		
PCPcO22	5-optional-Precision medicine				✓															✓			✓			
PMCcO11	5-optional-radiopharmaceutical	✓		✓					✓					✓						✓			✓			
PMCcO12	5-optional-Nanochemistry	✓		✓								✓														
PCLcO13	5-optional-Neuroscience-2	✓																								
PMBcO07	5-optional-Infection control and antimicrobial stewardship	✓	✓				✓										✓									
PMBcO08	5-optional-Biopharmaceuticals and immunological products	✓		✓									✓				✓									
PMBcO09	5-optional-Bioinformatics, Genomics, Pharmacogenomics, and Pharmacomicrobiomics	✓													✓											
PCPcO21	5-optional-Health media							✓		✓	✓															
PCTcO11	5-optional-Veterinary pharmacy	✓		✓			✓									✓										
XXX	Summer Training				✓				✓																	✓

Compulsory Modules		Part-B-Academic Standards (Domain-3 and Domain-4, Key elements 3-1-1 to 4-3-2)															
Code	Name	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
PCLc101	Integrated Body System-1	✓			✓							✓	✓			✓		
PHENGL01	English for Academic Purpose (EAP)												✓		✓			✓
MTH101	Mathematics												✓					✓
PCTc101	Pharmacy Orientation, Legislation & Ethics																	✓
PMCc102	Pharmaceutical Organic Chemistry 1												✓					
PMCc101	Pharmaceutical Analytical Chemistry-1												✓				✓	
PCTc102	Physical Pharmacy												✓					✓
PCGc101	Pharmacognosy-1							✓					✓					
PMCc103	Pharmaceutical Organic Chemistry 2												✓					
PCLc102	Integrated Body System-2				✓							✓				✓		
PCPc102	Human rights and Fighting Corruption											✓	✓					
PHENGL02	English for Academic Writing (EAW)											✓	✓		✓			
PCPc101	Scientific thinking & Communication skills												✓		✓			
PBCc201	Biochemistry-1	✓			✓								✓		✓			
PCLc203	Integrated Body System-3	✓			✓							✓	✓			✓		
PMCc204	Pharmaceutical Analytical Chemistry-2												✓		✓			
PCTc203	Pharmaceutics- 1											✓	✓					✓
PCGc202	Pharmacognosy-2							✓					✓		✓	✓		
PCPc203	Psychology											✓	✓					✓
PCLc204	Pharmacology-1					✓							✓			✓		✓
PMBc201	General Microbiology and Immunology			✓	✓							✓	✓					
PBCc202	Biochemistry-2	✓		✓	✓							✓	✓		✓			✓
PMCc206	Pharmaceutical Organic Chemistry 3												✓					
PMCc205	Instrumental Analysis												✓					
PCTc204	Pharmaceutics 2												✓			✓		
PBCc303	Clinical Biochemistry	✓			✓							✓	✓					
PCPc304	First Aid & Basic Life Support (BLS)				✓								✓					
PMBc302	Pharmaceutical Microbiology		✓	✓								✓	✓					
PCTc305	Pharmaceutics 3												✓			✓		
PCLc305	Pharmacology-2					✓							✓			✓		
PCGc303	Phytochemistry-1											✓	✓					
PMBc303	Public health & preventive medicine		✓										✓					
PCPc307	Community Pharmacy Practice	✓					✓			✓	✓				✓			

Compulsory Modules		Part-B-Academic Standards (Domain-3 and Domain-4, Key elements 3-1-1 to 4-3-2)																
Code	Name	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
PCPc306	Pharmacotherapy of Respiratory Diseases				✓	✓	✓								✓			
PMCc307	Medicinal Chemsitry-1											✓	✓					
PMBc304	Medical Microbiology-1 (Parasitology & Virology)			✓	✓								✓		✓	✓		
PCLc306	Pharmacology-3	✓				✓												
PCGc304	Phytochemistry-2											✓	✓					
PCPc305	Pharmacotherapy of Cardiovascular Diseases				✓	✓				✓					✓			
PCTc406	Biopharmaceutics & Pharmacokinetics											✓	✓					
PMCc408	Medicinal Chemsitry-2											✓	✓					
PCPc408	Pharmacotherapy of Endocrine and Renal Diseases				✓		✓			✓			✓					
PCPc409	Pharmacotherapy of Gastrointestinal Diseases	✓		✓	✓	✓	✓								✓			
PCLc407	Toxicology								✓		✓		✓			✓		
PCPc411	Pharmacotherapy of Neuropsychiatric Diseases				✓					✓			✓					
PCTc407	Pharmaceutical Technology												✓					
PMBc405	Medical Microbiology-2 (Bacteriology & Mycology)			✓	✓								✓					
PCTc408	Dosage Form Design												✓					
PCPc410	Hospital Pharmacy						✓						✓					
PCGc505	Phytotherapy & Aromatherapy					✓		✓		✓			✓		✓	✓		
PCPc513	Pharmacotherapy of Dermatological, Reproductive and Musculoskeletal Diseases	✓			✓	✓	✓								✓			
PCPc514	Pharmacotherapy of Paediatric Diseases				✓	✓	✓			✓					✓			
PCPc515	Entrepreneurship											✓		✓				
PMBc506	Biotechnology	✓											✓			✓		
PCPc512	Drug Information & Pharmacovigilance					✓	✓		✓						✓			
PCLc508	Research Methodology & Biostatistics												✓					
PBCc504	Clinical Nutrition							✓				✓	✓			✓		✓
PCPc517	Clinical Pharmacokinetics					✓							✓					
PCPc520	Clinical Pharmacy Practice					✓							✓					
PCPc516	Marketing & Pharmacoeconomics												✓					
PCPc519	Pharmacotherapy of Critical Care Patients				✓		✓										✓	
PCPc518	Pharmacotherapy of Oncological Diseases and Radio pharmacy	✓			✓		✓							✓				
PMCc509	Quality Control of Pharmaceuticals												✓					

Optional Modules		Part-B-Academic Standards (Domain-3 and Domain-4, Key elements 3-1-1 to 4-3-2)																
Code	Name	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
PCPcO23	4-optional-Palliative Care	✓													✓			✓
PCLcO12	4-optional-Neuroscience-I	✓			✓							✓	✓			✓		
PMCcO13	4-optional-Drug Design												✓					
PCTcO10	4-optional-Cosmetics												✓		✓			
PCLcO09	4-optional-Biological screening of drug activities												✓			✓		
PMCcO10	4-optional-Advanced Pharmaceutical Analysis												✓			✓		
PCTcO09	4-optional-Advanced Drug Delivery and Nano pharmaceuticals												✓			✓		
PBCcO05	4-optional- Molecular Biology & Gene Therapy	✓			✓							✓	✓		✓	✓		✓
PCGcO06	5-optional-Aromatherapy & Herbal Cosmetics							✓					✓			✓		
PMBcO10	5-optional-Diagnostic Microbiology			✓	✓								✓					
PCLcO11	5-optional-Evaluation of Safety of Drugs	✓					✓						✓			✓		
PCLcO10	5-optional-High-through-screening of drug activities								✓			✓	✓		✓			
PCPcO22	5-optional-Precision medicine	✓				✓							✓					
PMCcO11	5-optional-radiopharmaceutical								✓			✓	✓					
PMCcO12	5-optional-Nanochemistry							✓	✓									✓
PCLcO13	5-optional-Neuroscience-2	✓			✓							✓	✓			✓		
PMBcO07	5-optional-Infection control and antimicrobial stewardship		✓										✓					
PMBcO08	5-optional-Biopharmaceuticals and immunological products	✓											✓		✓			
PMBcO09	5-optional-Bioinformatics, Genomics, Pharmacogenomics, and Pharmacomicrobiomics	✓											✓					
PCPcO21	5-optional-Health media									✓	✓				✓			
PCTcO11	5-optional-Veterinary pharmacy												✓			✓		
XXX	Summer Training									✓			✓			✓	✓	

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

1. Lectures on campus
2. Lectures off campus
3. Laboratory classes
4. Tutorials
5. Presentation
6. Poster/Model/Brochures
7. Cosmetics / Aromatherapy preparations and exhibitions
8. Discussion groups
9. Problem solving
10. Research/ Reports/ Newsletter
11. Case studying
12. Group Learning
13. Brainstorming
14. Role playing
15. Field survey
16. Field visit
17. eLearning
18. Flipped classes
19. Library session
20. Virtual labs/ Simulation-based Learning
21. Games
22. Assignments
23. Mock Pharmacy
24. Electronic based learning/ Interactive learning/ Online applications
25. Movies/ Videos
26. Self-learning/ Self-assessment
27. Team working
28. Awareness Campaign

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

Assessment System

The overall module mark consists of the sum of the marks of coursework, practical, written and oral exams as shown in the program curriculum tables. The minimum overall module mark for pass and award of credit at the specified level in each module shall be 60% except for English and Mathematics modules where the minimum passing mark is 50% according to the BUE General Academic Regulations (GAR). The student does not pass a module unless 30% of the final (unseen) written exam mark is achieved. The grading scale is shown in the following table:

BUE Grading Scale

Grade	Egyptian Equivalent %	GPA
A^+	89 and above	4.0
A	87 – 88	3.9
A^-	85 – 86	3.7
B^+	82 – 84	3.5
B	79 – 81	3.1
B^-	75 – 78	2.7
C^+	72 – 74	2.5
C	69 – 71	2.3
C^-	65 – 68	2.0
D^+	60 – 64	1.8
All Modules Except English and Mathematics		
F	Less than 60	0
For English and Mathematics only		
D	55 – 59	1.6
D^-	50 – 54	1.3

F	Less than 50	0

The overall grade for each level of study is calculated on the basis of the average mark of all modules for that level, weighted according to their credit value where the student cannot get more than (D) grade in modules that were failed or missed with an unaccepted excuse. However, if the student was absent with an accepted impaired performance claim or appeal, then his actual grade shall be counted.

The final overall average and grade, which determines the Honours classification, is calculated as an average of all study levels and students are ranked according to the overall average percentage grade.

An “Honours” standing is granted to the student provided that his overall grade is Excellent or Very Good and his year average has not fallen below “Very Good” (GPA 2.7 = 75 %) in any single year of the programme, and he has not failed any modules during his program of study, while it shall not be considered in the student ranking.

Weighted Average (per semester/year/overall cumulative total) = [Sum of (each module percentage x module credits)] / Total credits (per semester/year/all semesters)

The cumulative average for all semesters is calculated according to the previous table.

8. Program Key Performance Indicators (if any)

No.	Performance Indicator	Target Level	Method	Measurement
1.	Student Progression Rate	≥ 85% successful progression to next level each academic year	Student records, annual programme report	Percentage of students progressing to next level divided by total enrolled students
2.	Graduation Rate	≥ 80% of students complete within 6 years (5 years + 1 internship)	Graduation statistics	Number of graduates within 6 years ÷ total cohort intake × 100
3.	Evaluation of the level of Pharmacy graduates/students	Employment agencies (Stakeholders)	Questionnaire	Feedback
4.	Program evaluation by senior students	Senior students	Questionnaire	Scores out of 5
5.	External Examiner Satisfaction	100% of reports indicate programme meets expected standards	Annual external examiner report	Percentage of positive evaluations from external examiners
6.	Alignment of Exam Papers with Learning Outcomes (NARS Alignment)	100% of exams mapped to module Learning Outcomes (LOs) and blueprint	Exam blueprints	Verification that all exam papers are aligned with the approved blueprint and adequately cover the learning outcomes according to NARS requirements.
7.	Staff-to-Student Ratio	1:25 or better	Faculty HR and enrolment data	Total number of teaching staff ÷ total number of enrolled students

No.	Performance Indicator	Target Level	Method	Measurement
8.	Course File & Module Spec Submission Compliance	100% of course files submitted on time	Internal audit reports	Number of submitted course files ÷ total required course files × 100
9.	Simulation and OSCE Utilization Rate	At least one module per semester modules integrate simulation or OSCE evaluation	Module reports, simulation unit schedule	Percentage of modules using simulation or OSCE per semester
10.	Community Engagement Activities done by students	≥ 3 awareness campaigns or outreach activities per semester	Department reports, photos, attendance lists	Number of community engagement activities conducted by students per semester

Name & Signature Program Coordinator Associate Professor. Marwa Hamza	Name & Signature Vice Dean for Education and Student Affairs Professor. Abdel Gawad Hashem