توصيف برنامج بكالوريوس الصيدلة

(Pharm D)- (فارم-دي)

طبقاً لنظام الساعات المعتمدة

كلية الصيدلة - جامعة كفرالشيخ

(2025)

Program Specification

(2025)

1. Basic Information

ProgramTitle (according to what is stated in the bylaw):	Bachelor of Pharmacy (Pharm D.)
Total number of credit hours/points of the program:	175
Number of academic years/levels (expected program duration):	5 years + one academic year of internship
Department (s) Participating (if any) in teaching the program:	• Department of Pharmaceutical Chemistry • Department of Pharmaceutical Analytical Chemistry • Department of Biochemistry • Department of Pharmaceutical Technology • Department of Pharmacognosy • Department of Microbiology and Immunology • Department of Pharmacology & Toxicology • Department of Clinical Pharmacy.
Faculty/Institute:	Faculty of Pharmacy,
University/Academy:	Kafrelsheikh University.
Program majors/divisions/tracks /specialties in the final year (if any):	---
Partnerships with other parties and the nature of each (if any):	---
Name of the program coordinator (attach the assignment decision):	Prof. Dr. Abdel Aziz El-Ashmawy
Program Specification Approval Date:	13/7/2025
Council responsible for Program Specification Approval (Attach the Decision / Minutes):	College Council

2. Program Aims

The program aims to graduate a distinguished pharmacist qualified to work in public and private pharmacies, pharmaceutical factories and companies, pharmaceutical control laboratories, food analysis, and work in the field of media, marketing, research, and universities. This program also supports the role of pharmacists in multidisciplinary health teams.

Faculty of Pharmacy, Kafrelsheikh University, provided the student with the following necessary attributes:

1. Safely and effectively deal with chemicals and pharmaceutical products in compliance with pharmacy law and legalizations.
2. Capable of formulating, preparing pharmaceutical products from natural/synthetic resources.
3. Share effectively in systems for dispensing, storage, and distribution of medications.
4. Perform various qualitative and quantitative analytical techniques and fulfill criteria for both GLP and GMP to assure the quality of raw materials and pharmaceutical products.
5. Provide information and pharmacy services to the community and patients about the rational use of medications and medical devices.
6. Demonstrate general and therapeutic communication skills with colleagues, healthcare teams, and patients.
7. Practice effective communication, leadership, business, and entrepreneurial skills.
8. Demonstrate comprehensive knowledge about the code of ethics and human rights.
9. Perform responsibilities in compliance with legal, ethical, and professional rules.
10. Demonstrate an updated knowledge in the biology of microorganisms and their attribution to infectious diseases and apply this in research and practical work in controlling microbial infections, epidemiology, and public health issues.
11. Have recent knowledge in pharmacology, screening, and bioassay of drugs, as well as toxicology of xenobiotics.
12. Apply the principles of pharmacology and toxicology in selecting appropriate drugs for patients and share effectively in the design of therapeutic protocols for each patient.
13. Be a life-long learner, creative researcher, and effective participant in healthcare of the community, in addition to self-assessment for continuous development.
14. Participate in community service such as pharmacovigilance and share effectively in environmental development, and provide a tangible economic return by rationalizing the use of medicines in hospitals.
15. Document medical orders clearly and report medical interventions in the patient's file.

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		1	1	0.56%
Faculty/College Requirements (if applicable)		4	8	4.54%
Program Requirements		68	167	94.88%
Requirements of the majors/ divisions/ tracks/ specializations in the final year (if any)		---	---	---
Other requirements	Field Training		100	56.81%
	Graduation Project		---	---
	Mandatory training year		6 training courses (minimum 180 hours/ course) within 36 weeks	---
	Other (to be mentioned)			
Total Compulsory Courses		69	168	95.45%
Elective Courses		4	8	4.54%
Total		73	176	100%

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

Academic 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
Level 1	Semester 1	**PA 101**	**Pharmaceutical Analytical Chemistry I**	compulsory	program requirement	3	2	2	---
Level 1	Semester 1	**PC 101**	**Pharmaceutical Organic Chemistry I**	compulsory	program requirement	3	2	2	---
Level 1	Semester 1	**PT 101**	**Pharmacy Orientation**	compulsory	program requirement	1	1	---	---
Level 1	Semester 1	**PG 101**	**Medicinal Plants**	compulsory	program requirement	3	2	2	---
Level 1	Semester 1	**MD 101**	**Medical Terminology**	compulsory	program requirement	1	1	---	---
Level 1	Semester 1	**NP 101**	**Information Technology**	compulsory	program requirement	2	1	2	---
Level 1	Semester 1	**MS 101**	**Mathematics**	compulsory	program requirement	1	1	---	---
Level 1	Semester 1	**UR 101**	**Human Rights and Fighting Corruption (UR)**	compulsory	University requirement	1	1	---	---
Level 1	Semester2	**PA 202**	**Pharmaceutical Analytical Chemistry II**	compulsory	program requirement	3	2	2	---
Level 1	Semester2	**PC 202**	**Pharmaceutical Organic Chemistry II**	compulsory	program requirement	3	2	2	---
Level 1	Semester2	**PB 201**	**Cell Biology**	compulsory	program requirement	2	2	---	---
Level 1	Semester2	**MD 202**	**Anatomy& Histology**	compulsory	program requirement	3	2	2	---
Level 1	Semester2	**PT 202**	**Physical Pharmacy**	compulsory	program requirement	3	2	2	---
Level 1	Semester2	**PG 202**	**Pharmacognosy I**	compulsory	program requirement	3	2	2	---
Level 1	Semester2	**MD 203**	**Psychology**	compulsory	program requirement	1	1	---	---
Level 2	Semester1	**PA 303**	**Pharmaceutical Analytical Chemistry III**	compulsory	program requirement	2	1	2	---
Level 2	Semester1	**PC 303**	**Pharmaceutical Organic Chemistry II**	compulsory	program requirement	3	2	2	---

Academic 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
Level 2	Semester1	**NP 302**	**Scientific Writing**	compulsory	program requirement	1	1	---	---
Level 2	Semester1	**PG 303**	**Pharmacognosy II**	compulsory	program requirement	3	2	2	---
Level 2	Semester1	**MD 304**	**Physiology I**	compulsory	program requirement	3	2	2	---
Level 2	Semester1	**PT 303**	**Pharmaceutics I**	compulsory	program requirement	3	2	2	---
Level 2	Semester2	**PB 402**	**Biochemistry I**	compulsory	program requirement	3	2	2	---
Level 2	Semester2	**PM 401**	**General Microbiology and Genetics**	compulsory	program requirement	3	2	2	---
Level 2	Semester2	**PM 402**	**Immunology**	compulsory	program requirement	1	1	---	---
Level 2	Semester2	**PA 404**	**Instrumental Analysis**	compulsory	program requirement	3	2	2	---
Level 2	Semester2	**MD 406**	**Pathology and Pathophysiology**	compulsory	program requirement	2	2	---	---
Level 2	Semester2	**PT 404**	**Pharmaceutics II**	compulsory	program requirement	3	2	2	---
Level 2	Semester2	**NP403**	**Communication skills**	compulsory	program requirement	1	1	---	---
Level 2	Semester2	**MD 405**	**Physiology II**	compulsory	program requirement	2	2	---	---
Level 3	Semester1	**PB 503**	**Biochemistry II**	compulsory	program requirement	3	2	2	---
Level 3	Semester1	**PM 503**	**Pharmaceutical Microbiology**	compulsory	program requirement	3	2	2	---
Level 3	Semester1	**PG 504**	**Phytochemistry I**	compulsory	program requirement	3	2	2	---
Level 3	Semester1	**PT 505**	**Pharmaceutics III**	compulsory	program requirement	3	2	2	---
Level 3	Semester1	**PC 504**	**Medicinal Chemistry I**	compulsory	program requirement	3	2	2	---
Level 3	Semester1	**PO 502**	**Pharmacology I**	compulsory	program requirement	3	2	2	---
Level 3	Semester1	**PO 501**	**Biostatistics**	compulsory	program requirement	1	1	---	---
Level 3	Semester2	**PM 604**	**Parasitology and Virology**	compulsory	program requirement	3	2	2	---
Level 3	Semester2	**PT 606**	**Biopharmaceutics and Pharmacokinetics**	compulsory	program requirement	3	2	2	---

Academic 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
Level 3	Semester2	**PG 605**	**Phytochemistry II**	compulsory	program requirement	3	2	2	---
Level 3	Semester2	**PT 607**	**Pharmaceutics IV**	compulsory	program requirement	3	2	2	---
Level 3	Semester2	**PO 603**	**Pharmacology II**	compulsory	program requirement	3	2	2	---
Level 3	Semester 2	**PC 605**	**Medicinal Chemistry II**	compulsory	program requirement	3	2	2	---
Level 4	Semester 1	**PM 705**	**Medical Microbiology**	compulsory	program requirement	3	2	2	---
Level 4	Semester 1	**PO 704**	**Pharmacology III**	compulsory	program requirement	3	2	2	---
Level 4	Semester 1	**PG 706**	**Applied & Forensic Pharmacognosy**	compulsory	program requirement	2	1	2	---
Level 4	Semester 1	**PC 706**	**Medicinal Chemistry III**	compulsory	program requirement	2	2	---	---
Level 4	Semester 1	**PB 704**	**Clinical Biochemistry**	compulsory	program requirement	3	2	2	---
Level 4	Semester 1	**PT 708**	**Pharmaceutical Technology I**	compulsory	program requirement	3	2	2	---
Level 4	Semester 1	**NP 704**	**Pharmaceutical Legislations and Regulatory**	compulsory	program requirement	1	1	---	---
Level 4	Semester 1	**PE ---**	**Elective**	elective	Faculty requirement	2	1	2	---
Level 4	Semester 2	**PP 801**	**Clinical Pharmacokinetics**	compulsory	program requirement	3	2	2	---
Level 4	Semester 2	**PO 805**	**Drug Information**	compulsory	program requirement	2	1	2	---
Level 4	Semester 2	**PO 806**	**Basic & Clinical Toxicology**	compulsory	program requirement	3	2	2	---
Level 4	Semester 2	**PP 802**	**Hospital Pharmacy**	compulsory	program requirement	2	1	2	---
Level 4	Semester 2	**PT 809**	**Pharmaceutical Technology II**	compulsory	program requirement	3	2	2	---
Level 4	Semester 2	**PP 803**	**Community Pharmacy Practice**	compulsory	program requirement	3	2	2	---
Level 4	Semester 2	**PC 807**	**Drug Design**	compulsory	program requirement	2	1	2	---
Level 4	Semester 2	**PE ---**	**Elective**	elective	Faculty requirement	2	1	2	---

Academic 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
Level 5	Semester 1	**PM 906**	**Biotechnology**	compulsory	program requirement	3	2	2	---
Level 5	Semester 1	**PP 904**	**Clinical pharmacy I**	compulsory	program requirement	3	2	2	---
Level 5	Semester 1	**PM 907**	**Public Health**	compulsory	program requirement	2	2	---	---
Level 5	Semester 1	**PG 907**	**Phytotherapy and Aromatherapy**	compulsory	program requirement	3	2	2	---
Level 5	Semester 1	**PT 910**	**Good Manufacturing Practice**	compulsory	program requirement	2	1	2	---
Level 5	Semester 1	**NP 905**	**Marketing & Pharmacoeconomics**	compulsory	program requirement	2	2	---	---
Level 5	Semester 1	**MD 907**	**First Aid**	compulsory	program requirement	1	1	---	---
Level 5	Semester 1	**PE ---**	**Elective**	elective	Faculty requirement	2	1	2	---
Level 5	Semester 2	**PA 005**	**Quality Control of Pharmaceuticals**	compulsory	program requirement	3	2	2	---
Level 5	Semester 2	**PP 005**	**Drug interaction**	compulsory	program requirement	2	1	2	---
Level 5	Semester 2	**PT 011**	**Advanced Drug Delivery Systems**	compulsory	program requirement	2	1	2	---
Level 5	Semester 2	**PP 006**	**Clinical Pharmacy II & Pharmacotherapeutics**	compulsory	program requirement	2	1	2	---
Level 5	Semester 2	**NP 006**	**Entrepreneurship**	compulsory	program requirement	2	1	2	---
Level 5	Semester 2	**PP 007**	**Clinical Research, Pharmacoepidemiology and & Pharmacovigilance**	compulsory	program requirement	2	1	2	---
Level 5	Semester 2	**NP 007**	**Professional Ethics**	compulsory	program requirement	1	1	---	---
Level 5	Semester 2	**PE ---**	**Elective**	elective	Faculty requirement	2	1	2	---

4. Academic Standards

- **Adopted Academic Standards (NARS/ARS): NARS**
- **Date of Adoption of Standards in the governing Council: 11/11/2019**

National Academic Reference Standard (NARS)

1. 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 graduate 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 inter-

professional 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.

2. Competencies of the Pharmacy Graduates

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. A number of **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-centered care.

Key Elements

1-1-1-Demonstrate understanding of knowledge of pharmaceutical, biomedical, social, behavioral, 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, analyze, 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 analyze 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, analyze, and standardize synthetic/natural pharmaceutical materials.

2-2-2 Apply the basic requirements of quality management system in developing, manufacturing, analyzing, 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 bio-pharmaceutics 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-labeled 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 Fulfill 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 in planning and conducting research studies using appropriate methodologies.

2-6- Competency

Perform pharmacoeconomic 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 pharmacoeconomic 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 etiology, epidemiology, pathophysiology, laboratory diagnosis, and clinical features of infections/diseases and their pharmacotherapeutic approaches.

3-2- Competency

Provide counseling 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 analyze 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 demonip9-strate 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.

Coverage of National Academic Reference Standards by the Faculty of Pharmacy- program aims

Attributes of graduates Program		Program aims
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:		
1.1	Educate and counsel individuals and communities to participate in optimizing therapeutic outcomes and minimizing the incidence of illness of individuals and populations.	3,6,9
1.2	Practice and perform responsibilities and authorities legally, professionally, and ethically respecting patients' rights.	1,11,12
1.3	Utilize evidence-based data to deliver contemporary pharmaceutical products and pharmacy services.	6,19
1.4	Assure the quality of pharmaceutical materials and products.	5
1.5	Apply integrated evidence-based pharmaceutical and clinical information in assessing the appropriateness, effectiveness, and safety of medications	16,17,20
1.6	Contribute effectively in planning and conducting research using appropriate methodologies	4, 5, 14, 18
1.7	Work collaboratively and share therapeutic decision-making as a member of an inter-professional health care team.	9,10
1.8	Demonstrate effective communication, leadership, business administration, and entrepreneurial skills	10
1.9	Work as a life-long learner for continuous professional improvement and demonstrate capabilities of performance appraisal and self-assessment.	18

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

	Course name and code	Program DOMAIN 1 (FUNDAMENTAL KNOWLEDGE) COMPETENCY (1-1)						
		1	2	3	4	5	6	7
1	Pharmaceutical Analytical Chemistry I- PA 101	■		■				
2	Pharmaceutical Organic Chemistry I- PC 101	■		■				
3	Pharmacy Orientation- PT 101	■	■					
4	Medicinal Plants- PG 101	■		■			■	■
5	Medical Terminology- MD 101	■	■	■				
6	Information Technology- NP 101	■						
7	Mathematics- MS 101	■						
8	Human Rights and Fighting Corruption (UR)- UR 101	■						
9	Pharmaceutical Analytical Chemistry II- PA 202	■		■				
10	Pharmaceutical Organic Chemistry II- PC 202	■		■				
11	Cell Biology- PB 201	■						
12	Anatomy& Histology- MD 202	■						
13	Physical Pharmacy- PT 202	■		■				
14	Pharmacognosy I- PG 202	■	■	■	■	■	■	■
15	Psychology- MD 203	■						
16	Pharmaceutical Analytical Chemistry III- PA 303	■		■				
17	Pharmaceutical Organic Chemistry III- PC 303	■		■			■	
18	Scientific Writing- NP 302	■				■	■	■
19	Pharmacognosy II- PG 303	■	■	■	■	■	■	■
20	Physiology I- MD 304	■						
21	Pharmaceutics I- PT 303	■		■				
22	Biochemistry I- PB 402	■						
23	General Microbiology and Genetics- PM 401	■						
24	Immunology- PM 402	■				■		■

Course name and code		Program DOMAIN 1 (FUNDAMENTAL KNOWLEDGE) COMPETENCY (1-1)						
		1	2	3	4	5	6	7
25	Instrumental Analysis- PA 404	■		■				
26	Pathology and Pathophysiology- MD 406	■	■					
27	Pharmaceutics II- PT 404	■		■				
28	Communication skills- NP403	■				■	■	■
29	Physiology II- MD 405	■						
30	Biochemistry II- PB 503	■						
31	Pharmaceutical Microbiology- PM 503	■					■	
32	Phytochemistry I- PG 504	■		■	■	■	■	■
33	Pharmaceutics III- PT 505	■		■				
34	Medicinal Chemistry I- PC 504	■		■	■		■	
35	Pharmacology I- PO 502	■			■	■		
36	Biostatistics- PO 501	■						
37	Parasitology and Virology- PM 604	■				■	■	■
38	Biopharmaceutics and Pharmacokinetics- PT 606	■					■	
39	Phytochemistry II- PG 605	■		■	■	■	■	■
40	Pharmaceutics IV- PT 607	■		■				
41	Pharmacology II- PO 603	■			■	■		
42	Medicinal Chemistry II- PC 605	■		■			■	
43	Medical Microbiology- PM 705	■					■	■
44	Pharmacology III- PO 704	■			■	■	■	
45	Applied & Forensic Pharmacognosy- PG 706	■		■				■
46	Medicinal Chemistry III- PC 706	■		■	■	■	■	■
47	Clinical Biochemistry- PB 704	■				■	■	
49	Pharmaceutical Technology I- PT 708	■		■				■
50	Pharmaceutical Legislations and Regulatory Affairs- NP 704	■						
51	Clinical Pharmacokinetics- PP 801	■			■	■	■	■

Course name and code		Program DOMAIN 1 (FUNDAMENTAL KNOWLEDGE) COMPETENCY (1-1)						
		1	2	3	4	5	6	7
52	Drug Information- PO 805	■	■		■	■	■	■
53	Basic & Clinical Toxicology- PO 806	■			■		■	
54	Hospital Pharmacy- PP 802	■			■	■	■	■
55	Pharmaceutical Technology II- PT 809	■		■				■
56	Community Pharmacy Practice- PP 803	■			■	■	■	■
57	Drug Design- PC 807	■		■			■	
58	Biotechnology-PM 906	■						■
59	Clinical pharmacy I- PP 904	■			■	■	■	■
60	Public Health- PM 907	■	■		■	■	■	
61	Phytotherapy and Aromatherapy- PG 907	■	■		■	■	■	■
62	Good Manufacturing Practice- PT 910	■		■				■
63	Marketing & Pharmacoeconomics- NP 905	■						
64	First Aid- MD 907	■	■				■	
65	Quality Control of Pharmaceuticals- PA 005	■		■			■	■
66	Drug interaction- PP 005	■			■			
67	Advanced Drug Delivery Systems- PT 011	■		■				
68	Clinical Pharmacy II & Pharmacotherapeutics- PP 006	■			■	■	■	■
69	Entrepreneurship- NP 006	■						
70	Clinical Research, Pharmacoepidemiology and & Pharmacovigilance- PP 007	■			■	■	■	■
71	Professional Ethics- NP 007	■						

Course name and code (Elective courses)		Program DOMAIN 1 (FUNDAMENTAL KNOWLEDGE) COMPETENCY (1-1)						
		1	2	3	4	5	6	7
1	Advanced Pharmaceutical Analysis – Spectroscopy- PA E6	■		■			■	■
2	Alternative Medicinal Therapies- PG E8	■	■	■	■	■	■	
3	Production and Manufacture of Medicinal plants- PG E9	■		■			■	■
4	Chromatography and Separation Techniques- PG E10	■		■			■	
5	Applied Industrial Pharmacy- PT E12	■		■				■
6	Clinical nutrition- PB E5	■	■				■	■
7	Cosmetic Preparations- PT E13	■		■			■	
8	Biological Standardization- PO E7	■					■	
9	Veterinary Pharmacology- PO E8	■			■	■	■	
10	Antimicrobial stewardship- PM E8	■				■	■	■
11	Infection Control- PM E9	■						
12	Bioinformatics- PM E10	■						

	Course name and code	(Program DOMAIN 2 (PROFESSIONAL AND ETHICAL PRACTICE																	
		(2-1)			(2-2)				(2-3)		(2-4)				(2-5)			(2-6)	
		1	2	3	1	2	3	4	1	2	1	2	3	4	1	2	3	1	2
1	Pharmaceutical Analytical Chemistry I- PA 101				■	■	■		■	■	■				■				
2	Pharmaceutical Organic Chemistry I- PC 101				■	■	■		■	■	■								
3	Pharmacy Orientation- PT 101	■	■			■									■				
4	Medicinal Plants- PG 101				■	■	■		■	■									
5	Medical Terminology- MD 101																		
6	Information Technology- NP 101							■											
7	Mathematics- MS 101							■											
8	Human Rights and Fighting Corruption (UR)- UR 101	■	■												■				
9	Pharmaceutical Analytical Chemistry II- PA 202				■	■	■		■	■	■				■				
10	Pharmaceutical Organic Chemistry II- PC 202				■	■	■		■	■	■								
11	Cell Biology- PB 201																		
12	Anatomy& Histology- MD 202																		
13	Physical Pharmacy- PT 202					■	■	■	■	■									
14	Pharmacognosy I- PG 202				■	■	■		■	■	■			■		■			
15	Psychology- MD 203			■															
16	Pharmaceutical Analytical Chemistry III- PA 303				■	■	■		■	■	■				■				
17	Pharmaceutical Organic Chemistry III- PC 303				■	■	■		■	■	■								
18	Scientific Writing- NP 302															■	■		
19	Pharmacognosy II- PG 303				■	■	■		■	■	■			■		■			
20	Physiology I- MD 304																		
21	Pharmaceutics I- PT 303				■	■	■	■	■	■									
22	Biochemistry I- PB 402								■	■									
23	General Microbiology and Genetics- PM 401																		

	Course name and code	(Program DOMAIN 2 (PROFESSIONAL AND ETHICAL PRACTICE																	
		(2-1)			(2-2)				(2-3)		(2-4)				(2-5)			(2-6)	
		1	2	3	1	2	3	4	1	2	1	2	3	4	1	2	3	1	2
24	Immunology- PM 402											■	■	■		■			
25	Instrumental Analysis- PA 404				■	■	■		■	■					■		■		
26	Pathology and Pathophysiology- MD 406																		
27	Pharmaceutics II- PT 404				■	■	■	■	■	■									
28	Communication skills- NP403	■	■	■															■
29	Physiology II- MD 405																		
30	Biochemistry II- PB 503								■	■									
31	Pharmaceutical Microbiology- PM 503					■	■	■	■	■					■	■	■		
32	Phytochemistry I- PG 504				■	■	■	■	■	■					■		■		
33	Pharmaceutics III- PT 505				■	■	■	■	■	■									
34	Medicinal Chemistry I- PC 504				■	■	■	■	■	■		■			■		■		
35	Pharmacology I- PO 502		■					■	■	■				■					
36	Biostatistics- PO 501							■									■		
37	Parasitology and Virology- PM 604		■									■		■		■			
38	Biopharmaceutics and Pharmacokinetics- PT 606							■											
39	Phytochemistry II- PG 605				■	■	■	■	■	■					■		■		
40	Pharmaceutics IV- PT 607				■	■	■	■	■	■									
41	Pharmacology II- PO 603		■					■	■	■			■						
42	Medicinal Chemistry II- PC 605				■	■	■	■	■	■			■		■		■		
43	Medical Microbiology- PM 705		■									■		■		■			
44	Pharmacology III- PO 704		■					■					■				■		
45	Applied & Forensic Pharmacognosy- PG 706				■	■	■	■	■	■	■	■		■	■		■		
46	Medicinal Chemistry III- PC 706				■	■	■		■	■				■	■		■		
47	Clinical Biochemistry- PB 704	■	■	■					■	■				■		■	■		
49	Pharmaceutical Technology I- PT 708					■		■	■						■				

	Course name and code	(Program DOMAIN 2 (PROFESSIONAL AND ETHICAL PRACTICE																		
		(2-1)			(2-2)				(2-3)		(2-4)				(2-5)			(2-6)	
		1	2	3	1	2	3	4	1	2	1	2	3	4	1	2	3	1	2
50	Pharmaceutical Legislations and Regulatory Affairs- NP 704	■	■	■											■				■
51	Clinical Pharmacokinetics- PP 801							■								■			
52	Drug Information- PO 805	■	■	■								■	■	■	■	■			■
53	Basic & Clinical Toxicology- PO 806		■	■							■	■	■	■		■			
54	Hospital Pharmacy- PP 802	■	■	■				■			■	■	■			■	■		
55	Pharmaceutical Technology II- PT 809					■		■	■						■				
56	Community Pharmacy Practice- PP 803	■	■	■				■							■	■			
57	Drug Design- PC 807				■	■	■										■		
58	Biotechnology-PM 906					■	■	■	■	■							■		
59	Clinical pharmacy I- PP 904	■	■	■				■					■			■			
60	Public Health- PM 907	■	■								■	■	■			■			
61	Phytotherapy and Aromatherapy- PG 907		■			■					■		■			■	■		
62	Good Manufacturing Practice- PT 910					■	■	■	■						■				
63	Marketing & Pharmacoeconomics- NP 905																	■	■
64	First Aid- MD 907		■	■								■							
65	Quality Control of Pharmaceuticals- PA 005					■	■		■	■					■				
66	Drug interaction- PP 005					■		■					■						
67	Advanced Drug Delivery Systems- PT 011					■	■	■	■	■							■		
68	Clinical Pharmacy II & Pharmacotherapeutics- PP 006	■	■	■				■					■			■			
69	Entrepreneurship- NP 006																	■	■
70	Clinical Research, Pharmacoepidemiology and &	■	■	■				■					■			■	■		
71	Professional Ethics- NP 007	■	■	■											■		■		

	Course name and code (Elective courses)	(Program DOMAIN 2 (PROFESSIONAL AND ETHICAL PRACTICE																		
		(2-1)			(2-2)				(2-3)		(2-4)				(2-5)			(2-6)	
		1	2	3	1	2	3	4	1	2	1	2	3	4	1	2	3	1	2
1	Advanced Pharmaceutical Analysis – Spectroscopy- PA E6				■		■		■	■									
2	Alternative Medicinal Therapies- PG E8		■	■				■			■		■			■	■		
3	Production and Manufacture of Medicinal plants- PG E9				■	■	■		■	■							■		
4	Chromatography and Separation Techniques- PG E10				■	■	■	■	■	■					■		■		
5	Applied Industrial Pharmacy- PT E12					■		■	■	■					■				
6	Clinical nutrition- PB E5	■	■	■												■	■		
7	Cosmetic Preparations- PT E13					■	■	■	■	■									
8	Biological Standardization- PO E7							■	■	■							■		
9	Veterinary Pharmacology- PO E8												■		■		■		
10	Antimicrobial stewardship- PM E8							■	■		■					■	■		
11	Infection Control- PM E9	■	■	■															
12	Bioinformatics- PM E10							■	■										

	Course name and code	Program Domain 3 (Pharmaceutical Care)									
		(3-1)				(3-2)					
		1	2	3	4	1	2	3	4	5	6
1	Pharmaceutical Analytical Chemistry I- PA 101										
2	Pharmaceutical Organic Chemistry I- PC 101										
3	Pharmacy Orientation- PT 101										
4	Medicinal Plants- PG 101					■		■			
5	Medical Terminology- MD 101										
6	Information Technology- NP 101										
7	Mathematics- MS 101										
8	Human Rights and Fighting Corruption (UR)- UR 101										
9	Pharmaceutical Analytical Chemistry II- PA 202										
10	Pharmaceutical Organic Chemistry II- PC 202										
11	Cell Biology- PB 201	■									
12	Anatomy& Histology- MD 202	■									
13	Physical Pharmacy- PT 202										
14	Pharmacognosy I- PG 202					■		■	■		
15	Psychology- MD 203										
16	Pharmaceutical Analytical Chemistry III- PA 303										
17	Pharmaceutical Organic Chemistry III- PC 303										
18	Scientific Writing- NP 302							■		■	
19	Pharmacognosy II- PG 303					■		■	■		
20	Physiology I- MD 304	■									
21	Pharmaceutics I- PT 303										
22	Biochemistry I- PB 402	■									
23	General Microbiology and Genetics- PM 401		■	■	■						
24	Immunology- PM 402	■	■	■	■				■		

	Course name and code	Program Domain 3 (Pharmaceutical Care)									
		(3-1)				(3-2)					
		1	2	3	4	1	2	3	4	5	6
25	Instrumental Analysis- PA 404										
26	Pathology and Pathophysiology- MD 406	■			■						
27	Pharmaceutics II- PT 404										
28	Communication skills- NP403									■	■
29	Physiology II- MD 405	■									
30	Biochemistry II- PB 503	■									
31	Pharmaceutical Microbiology- PM 503		■	■		■					
32	Phytochemistry I- PG 504							■	■		
33	Pharmaceutics III- PT 505										
34	Medicinal Chemistry I- PC 504					■					
35	Pharmacology I- PO 502					■	■				
36	Biostatistics- PO 501										
37	Parasitology and Virology- PM 604	■	■	■	■						
38	Biopharmaceutics and Pharmacokinetics- PT 606										
39	Phytochemistry II- PG 605							■	■		
40	Pharmaceutics IV- PT 607										
41	Pharmacology II- PO 603					■	■				
42	Medicinal Chemistry II- PC 605					■					
43	Medical Microbiology- PM 705	■	■	■	■				■		
44	Pharmacology III- PO 704					■	■		■		
45	Applied & Forensic Pharmacognosy- PG 706							■	■		■
46	Medicinal Chemistry III- PC 706					■					
47	Clinical Biochemistry- PB 704	■		■	■						
49	Pharmaceutical Technology I- PT 708										
50	Pharmaceutical Legislations and Regulatory Affairs- NP 704										
51	Clinical Pharmacokinetics- PP 801					■	■				
52	Drug Information- PO 805					■	■	■	■	■	■

Course name and code		Program Domain 3 (Pharmaceutical Care)									
		(3-1)				(3-2)					
		1	2	3	4	1	2	3	4	5	6
53	Basic & Clinical Toxicology- PO 806								■		■
54	Hospital Pharmacy- PP 802					■	■	■	■	■	■
55	Pharmaceutical Technology II- PT 809										
56	Community Pharmacy Practice- PP 803				■	■	■	■	■	■	■
57	Drug Design- PC 807										
58	Biotechnology-PM 906										
59	Clinical pharmacy I- PP 904				■	■	■	■	■	■	■
60	Public Health- PM 907		■		■					■	■
61	Phytotherapy and Aromatherapy- PG 907					■					
62	Good Manufacturing Practice- PT 910										
63	Marketing & Pharmacoeconomics- NP 905										
64	First Aid- MD 907								■	■	■
65	Quality Control of Pharmaceuticals- PA 005										
66	Drug interaction- PP 005					■	■	■	■	■	■
67	Advanced Drug Delivery Systems- PT 011										
68	Clinical Pharmacy II & Pharmacotherapeutics- PP 006					■	■	■	■	■	■
69	Entrepreneurship- NP 006										
70	Clinical Research, Pharmacoepidemiology and & Pharmacovigilance- PP 007				■	■	■			■	■
71	Professional Ethics- NP 007										

Course name and code (Elective courses)		Program Domain 3 (Pharmaceutical Care)									
		(3-1)				(3-2)					
		1	2	3	4	1	2	3	4	5	6
1	Advanced Pharmaceutical Analysis – Spectroscopy- PA E6										
2	Alternative Medicinal Therapies- PG E8	■			■	■	■	■		■	
3	Production and Manufacture of Medicinal plants- PG E9							■			
4	Chromatography and Separation Techniques- PG E10										
5	Applied Industrial Pharmacy- PT E12										
6	Clinical nutrition- PB E5	■						■			
7	Cosmetic Preparations- PT E13										
8	Biological Standardization- PO E7										
9	Veterinary Pharmacology- PO E8	■			■	■	■				■
10	Antimicrobial stewardship- PM E8		■	■	■					■	■
11	Infection Control- PM E9		■	■	■						■
12	Bioinformatics- PM E10										

	Course name and code	Program Domain 4 (Personal Practice)						
		(4-1)			(4-2)		(4-3)	
		1	2	3	1	2	1	2
1	Pharmaceutical Analytical Chemistry I- PA 101							
2	Pharmaceutical Organic Chemistry I- PC 101							
3	Pharmacy Orientation- PT 101					■		
4	Medicinal Plants- PG 101	■	■		■			
5	Medical Terminology- MD 101							
6	Information Technology- NP 101					■		
7	Mathematics- MS 101							
8	Human Rights and Fighting Corruption (UR)- UR 101	■	■					
9	Pharmaceutical Analytical Chemistry II- PA 202							
10	Pharmaceutical Organic Chemistry II- PC 202							
11	Cell Biology- PB 201							
12	Anatomy& Histology- MD 202							
13	Physical Pharmacy- PT 202					■		
14	Pharmacognosy I- PG 202					■		
15	Psychology- MD 203	■	■		■		■	
16	Pharmaceutical Analytical Chemistry III- PA 303							
17	Pharmaceutical Organic Chemistry III- PC 303					■		
18	Scientific Writing- NP 302	■	■	■	■	■	■	
19	Pharmacognosy II- PG 303					■		
20	Physiology I- MD 304							
21	Pharmaceutics I- PT 303					■		
22	Biochemistry I- PB 402					■		
23	General Microbiology and Genetics- PM 401							
24	Immunology- PM 402							

	Course name and code	Program Domain 4 (Personal Practice)						
		(4-1)			(4-2)		(4-3)	
		1	2	3	1	2	1	2
25	Instrumental Analysis- PA 404							
26	Pathology and Pathophysiology- MD 406							
27	Pharmaceutics II- PT 404							
28	Communication skills- NP403							
29	Physiology II- MD 405							
30	Biochemistry II- PB 503							
31	Pharmaceutical Microbiology- PM 503							
32	Phytochemistry I- PG 504							
33	Pharmaceutics III- PT 505							
34	Medicinal Chemistry I- PC 504							
35	Pharmacology I- PO 502							
36	Biostatistics- PO 501							
37	Parasitology and Virology- PM 604							
38	Biopharmaceutics and Pharmacokinetics- PT 606							
39	Phytochemistry II- PG 605							
40	Pharmaceutics IV- PT 607							
41	Pharmacology II- PO 603							
42	Medicinal Chemistry II- PC 605							
43	Medical Microbiology- PM 705							
44	Pharmacology III- PO 704							
45	Applied & Forensic Pharmacognosy- PG 706							
46	Medicinal Chemistry III- PC 706							
47	Clinical Biochemistry- PB 704							
49	Pharmaceutical Technology I- PT 708							
50	Pharmaceutical Legislations and Regulatory Affairs- NP 704							
51	Clinical Pharmacokinetics- PP 801							
52	Drug Information- PO 805							

	Course name and code	Program Domain 4 (Personal Practice)						
		(4-1)			(4-2)		(4-3)	
		1	2	3	1	2	1	2
53	Basic & Clinical Toxicology- PO 806							
54	Hospital Pharmacy- PP 802							
55	Pharmaceutical Technology II- PT 809							
56	Community Pharmacy Practice- PP 803							
57	Drug Design- PC 807							
58	Biotechnology-PM 906							
59	Clinical pharmacy I- PP 904							
60	Public Health- PM 907							
61	Phytotherapy and Aromatherapy- PG 907							
62	Good Manufacturing Practice- PT 910							
63	Marketing & Pharmacoeconomics- NP 905							
64	First Aid- MD 907							
65	Quality Control of Pharmaceuticals- PA 005							
66	Drug interaction- PP 005							
67	Advanced Drug Delivery Systems- PT 011							
68	Clinical Pharmacy II & Pharmacotherapeutics- PP 006							
69	Entrepreneurship- NP 006							
70	Clinical Research, Pharmacoepidemiology and & Pharmacovigilance- PP 007							
71	Professional Ethics- NP 007							

	Course name and code (Elective courses)	Program Domain 4 (Personal Practice)						
		(4-1)			(4-2)		(4-3)	
		1	2	3	1	2	1	2
1	Advanced Pharmaceutical Analysis – Spectroscopy- PA E6							
2	Alternative Medicinal Therapies- PG E8							
3	Production and Manufacture of Medicinal plants- PG E9							
4	Chromatography and Separation Techniques- PG E10							
5	Applied Industrial Pharmacy- PT E12							
6	Clinical nutrition- PB E5							
7	Cosmetic Preparations- PT E13							
8	Biological Standardization- PO E7							
9	Veterinary Pharmacology- PO E8							
10	Antimicrobial stewardship- PM E8							
11	Infection Control- PM E9							
12	Bioinformatics- PM E10							

7. Matrix of NARS Key Elements with teaching and learning methods:

Domain 1: Fundamental Knowledge												
Code	Teaching and learning methods											
	Lectures	Practical	E-learning	Self-learning	Discussion	Brain storming	Presentation	Assignment	Virtual lab	Field visit	Case study	Co-operative learning
1-1-1	√	√	√	√								
1-1-2	√				√		√	√				
1-1-3		√							√	√	√	
1-1-4	√				√	√					√	
1-1-5				√	√						√	√
1-1-6			√	√			√	√				
1-1-7				√	√	√	√					

Domain 2: Professional and Ethical Practice												
Code	Teaching and learning methods											
	Lectures	Practical	E-learning	Self-learning	Discussion	Brain storming	Presentation	Assignment	Virtual lab	Field visit	Case study	Co-operative learning
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	√						√	√			√	

Domain 3: Pharmaceutical Care												
Code	Teaching and learning methods											
	Lectures	Practical	E-learning	Self-learning	Discussion	Brain storming	Presentation	Assignment	Virtual lab	Field visit	Case study	Co-operative learning
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	√				√		√					

Domain 4: Personal Practice												
Code	Teaching and learning methods											
	Lectures	Practical	E-learning	Self-learning	Discussion	Brain storming	Presentation	Assignment	Virtual lab	Field visit	Case study	Co-operative learning
4-1-1					√		√				√	√
4-1-2				√	√	√					√	
4-1-3						√	√					√
4-2-1					√		√					√

4-2-2			√				√	√				
4-3-1				√	√			√				
4-3-2			√	√								

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

The teaching and learning approaches within this program were chosen to meet stated learning objectives, including:

Lectures Practical E-learning Self-learning Discussion Brainstorming Presentation	Assignment Virtual lab Field visit Case study Co-operative learning

The details of Teaching and learning methods are mentioned in the faculty's Teaching and learning strategy

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

Different assessment methods are used within this program, including:

1. Written examinations,
2. Formative exams
3. Practical assessments
4. Oral presentation.
5. Semester work

The final grade of the course consists of the sum of the semester's work (15%) + practical (25%) + written (50%) + oral (10%), as shown in the study plan tables.
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 or she receives 30% of the final written exam score.

Percentage	Symbol	Number of Points	Grade
95 and above	A^+	4	Excellent
90 for less than 95	A	3.8	
85 for less than 90	A^-	3.6	
82.5 for less than 85	B^+	3.4	very good
77.5 for less than 82.5	B	3.2	
75 for less than 77.5	B^-	3	
72.5 for less than 75	C^+	2.8	good
67.5 for less than 72.5	C	2.6	
65 for less than 67.5	C^-	2.4	
62.5 for less than 65	D^+	2.2	acceptable
60 for less than 62.5	D	2	
Less than 60	F	0.00	Deposit
Withdrawal - W	W	-	Withdrawal
Incomplete - I *	I*	-	Incomplete

Absent - Abs E **	**Abs E****	**-**	**Absent**

- **The student's GPA and CGPA are calculated as follows:**

A- The points of each course are calculated according to the following equation: Course Points (CGP) = (Degree - 60) x0.075 + 1

B - The value of points for each course is multiplied by the number of credit hours for this course to get the number of points for each course in the semester.

C - Points are collected for all the courses in which the student scored in one semester.

D- The total points of all courses shall be divided by the total credit hours registered for the student per semester for the purpose of obtaining the semester average as follows:

The semester rate (GPA) =

Total points of all courses per semester / Total credit hours registered per semester

The cumulative GPA is calculated as follows:

Cumulative Grade Point Average (cGPA) =

The sum of points for all courses for all semesters / Total credit hours registered for all semesters

10. Program Key Performance Indicators (if any)

No.	Performance Indicator	Target Level	Method	Measurement
1	**Student Achievement Rate**	**≥85% of students pass all required courses each academic year**	**Academic records analysis**	**Course pass rates, GPA reports**
2	**Graduate Employment Rate**	**≥80% employment post-graduation**	**Graduate tracer study**	**Survey of alumni and employer feedback**
3	**Student Satisfaction**	**≥80% satisfied with learning experience**	**Surveys at program end**	**Standardized satisfaction questionnaires**

4	Faculty to Student Ratio	≤1:20 (as per NARS guidelines)	Academic staff records	HR records vs. enrolled students
5	Program Completion Rate	≥90% of enrolled students graduate in the expected time	Cohort tracking	Analysis of student progress over time
6	Practical Training Satisfaction	≥85% satisfaction by students and preceptors	Feedback forms, exit interviews	Standardized forms for assessment
7	Licensure Exam Pass Rate	≥95% first-time pass	National exam results	Licensing authority data
8	Employer Satisfaction	≥85% satisfaction with graduate preparedness	Employer feedback survey	Standardized employer questionnaires
9	Curriculum Effectiveness	≥85% of stakeholders approve relevance of curriculum	Curriculum review workshops and feedback survey	Stakeholder feedback reports

Name & Signature
Program Coordinator
Prof/ Abdelaziz Elsayed Elashmawy

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Prof/ Abdelaziz Elsayed Elashmawy