# Faculty of Pharmacy Undergraduate Prospectus 2024/2025











### 1.1 Undergraduate programme offered by the Faculty of Pharmacy

Pharm D (5 studying years +1 Internship year)

Pharm D- Clinical (5 studying years + 1 Internship year)

## 1.2 Why study Pharmacy?

**Pharmacy** is the clinical health science that links medical sciences with chemistry and is responsible for the discovery, production, control, disposal, safe and effective use of drugs and control of medications and drugs. Clinical pharmacy requires other skills, e.g. knowledge about the acquisition and evaluation of physical and laboratory data.

The pharmacist is "a person prepared to formulate, dispense, and provide clinical information on drugs or medications to health professionals and patients." A pharmacist is a member in health care team, who plays a key role in providing quality healthcare and pharmaceutical care to the public. They are experts in medicines and use their clinical expertise, together with formulation, quality control, practical knowledge, to ensure the safe supply and use of medicines.

To be effective health care team members and pharmaceutical care providers, pharmacists need skills and attitudes enabling them to conduct many different functions. For this reason, the concept of the "Seven-star pharmacist" was introduced by the World Health Organization (WHO) in March 2014 and covered these roles: Caregiver, decision-maker, communicator, manager, life-long learner, teacher, and leader. In addition to the main role of pharmacist as a researcher in the field of pharmaceutical and medical sciences.

If you are interested in a healthcare career, but not sure which path to take; the following are among the most common reasons that encourage you to choose to pursue a career in pharmacy over other healthcare professions.

- **1. Interest of More Than One Science:** Pharmacy education provides multidiscipline studying fields including mathematics, biology, chemistry, genetics, and statistics in addition to other medical and pharmaceutical sciences.
- **2. Passion for Building Relationships with Others:** Pharmacy careers allow pharmacists to build direct relationships not only with patients in different situations but also with other health care team members.
- **3. Unique Approach to Healthcare:** The majority of students enrol in pharmacy programmes because they want to have a critical role in helping patients, while still being far away from typical physicians' activities such as surgeries, dealing with blood...etc.
- **4. Desire for Flexibility in Career Choice:** The variety of career pathways that exist within pharmacy is another main reason for choosing pharmacy profession. Community and hospital pharmacy, pharmaceutical industry, clinical pharmacy, veterinary pharmacy, nuclear pharmacy, marketing & pharmacoeconomics and drug research are all fields that might interest pharmacy graduates.

**In conclusion,** pharmacy is a cornerstone of the healthcare system, and it plays a vital role in patient healthcare, education, counselling and drug discovery. Additionally, **Pharm D** programme is a prominent and distinguishable programme that opens the door to countless possibilities and prepare pharmacists capable of manufacturing and developing pharmaceutical products in addition to effective communication, leadership, management and entrepreneurship. **Pharm D Clinical** programme provides the assistance in drug distribution, narcotics control, pre-packing pharmaceuticals, and clerical and other such duties that are necessary.



### 1.3 Why study in the Faculty of Pharmacy at the BUE?

The Faculty of Pharmacy at the BUE is accredited by The National Authority for Quality Assurance and Accreditation of Education "NAQAAE". Our faculty seeks to be an outstanding model for pharmacy education locally, regionally and internationally.

The overall mission of the Faculty of Pharmacy at the BUE is to provide higher education following the National Academic Reference Standards (NARS) to qualify competent and competitive pharmacists who can contribute to the development of their country in the field of health care and pharmaceutical industry, in addition to producing high impact scientific research and contributing effectively to community service in line with ethical and professional values.

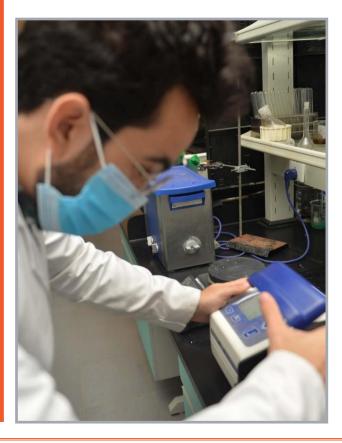
The Faculty of Pharmacy at the BUE offers a unique programme which equips graduates with the diverse pharmaceutical skills needed for various career paths. Whilst delivering a programme equivalent to those in the Egyptian university sector, the Faculty programme offers a British style and quality educational experience.

Students of the Faculty study in an environment that encourages diversity, effective learning and innovation. The staff are not just academic experts in the fields but often have 'real life' practical experience, which they bring to their subjects, as well as close contacts with the 'world of work'. Students in the Faculty learn not just what to think but how to think.

At the BUE campus there is a wide variety of student activities to join which provide a balance in University life of students and encourage them to realize their full potential. The social and entertainment student activities include; opened and closed playgrounds, swimming pool, theatre, a powerful student union, energetic clubs & societies and all year long events.

Furthermore, the buildings in the BUE campus represent a model of modern and British style. This is maintained in the Faculty of Pharmacy by the providence of appropriate lecture halls, classrooms, computer labs, well ventilated and equipped laboratories and spacious resting areas.

These advanced facilities and resources facilitate the delivery of high standard lectures, tutorials and practical classes while ensuring safe and secure studying environment to finally provide the ideal skills of well qualified pharmacist.





# 1.4 What will I study?

| 1- Pharm D programme  | 2- Pharm D Clinical programme   |  |
|---|---|--|
| 1.4.1.1 Degree Year 1   | 1.4.2.1 Degree Year 1   |  |
| <ul> <li>English for Academic Purposes</li> <li>Mathematics</li> <li>Pharmaceutical Analytical Chemistry-1</li> <li>Pharmaceutical Organic Chemistry-1</li> <li>Integrated Body System-1</li> <li>Pharmacy Orientation, Legislation &amp; Ethics</li> <li>English and Academic Writing</li> <li>Pharmaceutical Organic Chemistry-2</li> <li>Pharmacognosy-1</li> <li>Physical Pharmacy</li> <li>Integrated Body System-2</li> <li>Scientific Thinking &amp; Communication Skills</li> <li>Human Rights &amp; Fighting Corruption</li> </ul> | <ul> <li>English for Academic Purposes</li> <li>Mathematics</li> <li>Pharmaceutical Analytical Chemistry-1</li> <li>Pharmaceutical Organic Chemistry-1</li> <li>Integrated Body System-1</li> <li>Pharmacy Orientation, Legislation &amp; Ethics</li> <li>English and Academic Writing</li> <li>Pharmaceutical Organic Chemistry-2</li> <li>Pharmacognosy-1</li> <li>Physical Pharmacy</li> <li>Integrated Body System-2</li> <li>Scientific Thinking &amp; Communication Skills</li> <li>Human Rights &amp; Fighting Corruption</li> </ul>           |  |
| 1.4.1.2 Degree Year 2   | 1.4.2.2 Degree Year 2   |  |
| <ul> <li>Psychology</li> <li>Biochemistry-1</li> <li>Pharmaceutics-1</li> <li>Pharmacognosy-2</li> <li>Integrated Body System-3</li> <li>Pharmaceutical Analytical Chemistry-2</li> <li>Pharmacology-1</li> <li>Pharmaceutics-2</li> <li>Biochemistry-2</li> <li>Pharmaceutical Organic Chemistry-3</li> <li>Pharmaceutical Analytical Chemistry-3</li> <li>General Microbiology</li> </ul>   | <ul> <li>Psychology</li> <li>Biochemistry-1</li> <li>Pharmaceutics-1</li> <li>Pharmacognosy-2</li> <li>Integrated Body System-3</li> <li>Pharmaceutical Analytical Chemistry-2</li> <li>Pharmacology-1</li> <li>Pharmaceutics-2</li> <li>Biochemistry-2</li> <li>Pharmaceutical Organic Chemistry-3</li> <li>Instrumental Analysis</li> <li>General Microbiology &amp; Immunology</li> </ul>  |  |
| 1.4.1.3 Degree Year 3   | 1.4.2.3 Degree Year 3   |  |
| <ul> <li>Pharmaceutical Microbiology</li> <li>Phytochemistry-1</li> <li>Clinical Biochemistry</li> <li>Pharmacology-2</li> <li>Pharmaceutics-3</li> <li>First Aid &amp; Basic Life Support (BLS)</li> <li>Immunology</li> <li>Medical Microbiology-1 (Parasitology &amp; Virology)</li> <li>Medicinal Chemistry-1</li> <li>Phytochemistry-2</li> <li>Pharmacology-3</li> <li>Community Pharmacy Practice</li> <li>Instrumental Analysis</li> </ul>  | <ul> <li>Pharmaceutical Microbiology</li> <li>Phytochemistry-1</li> <li>Clinical Biochemistry</li> <li>Pharmacology-2</li> <li>Pharmaceutics-3</li> <li>First Aid &amp; Basic Life Support (BLS)</li> <li>Medical Microbiology-1 (Parasitology &amp; Virology)</li> <li>Public Health &amp; Preventive Medicine</li> <li>Medicinal Chemistry-1</li> <li>Phytochemistry-2</li> <li>Pharmacology-3</li> <li>Community Pharmacy Practice</li> <li>Pharmacotherapy of Cardiovascular Diseases</li> <li>Pharmacotherapy of Respiratory Diseases</li> </ul> |  |

#### 1- Pharm D programme 2- Pharm D Clinical programme 1.4.1.4 Degree Year 4 1.4.2.4 Degree Year 4 Toxicology Toxicology **Hospital Pharmacy Hospital Pharmacy** Dosage Form Design Dosage Form Design Medicinal Chemistry-2 Medicinal Chemistry-2 Medical Microbiology-2 Medical Microbiology-2 (Bacteriology (Bacteriology & Mycology) & Mycology) Pharmaceutics- 4 Biopharmaceutics & Pharmacokinetics Clinical pharmacy-1 Pharmacotherapy of Endocrine and Renal Pharmaceutical Technology-1 Pharmacotherapy of Gastrointestinal Diseases Drug information and Pharmacovigilance Clinical pharmacy-2 Pharmacotherapy of Neuropsychiatric Diseases 2 Optional modules (One in each semester) Pharmaceutical Technology 2 Optional modules (One in each semester) 1.4.2.5 Degree Year 5 1.4.1.5 Degree Year 5 Biotechnology Biotechnology Phytotherapy and Aromatherapy Phytotherapy & Aromatherapy Research Methodology & Biostatistics Research Methodology & Biostatistics Marketing & Pharmacoeconomics Marketing & Pharmacoeconomics Entrepreneurship Entrepreneurship **Quality Control of Pharmaceuticals** Quality Control of Pharmaceuticals **Clinical Pharmacokinetics** Drug Information & Pharmacovigilance Clinical pharmacy-3 Pharmacotherapy of Paediatric Diseases Pharmaceutical Technology-2 & GMP Pharmacotherapy of Dermatological, Biopharmaceutics and Pharmacokinetics Reproductive and Musculoskeletal Diseases Public Health and Preventive Medicine Pharmacotherapy of Oncological Diseases and Radiopharmacy Drug Design **Applied Pharmacognosy** Pharmacotherapy of Critical Care Patients 2 Optional modules (One in each Semester) Clinical Pharmacokinetics Clinical Nutrition Clinical Pharmacy Practice 2 Optional modules (One in each semester) 1.4.1.6 Degree Year 6 1.4.2.6 Degree Year 6 Pharm D programme is designed to provide you with an Pharm D Clinical programme is designed to provide the internship year (specialized training) in the form of training student with an internship year (specialized training) that rotations in different pharmacy professions including consists of six training rotations; four rotations at least in health care institutions, pharmaceutical companies, hospitals that implement clinical pharmacy practice, and research centres, sales and marketing...etc.). The training one course is devoted for training in the field of medicine programme also includes a research graduation project industry (manufacturing - drug control - marketing ... related to the student area of interest. etc.). The training programme also includes a research graduation project related to the student area of interest. This training programme aimed to promote our graduates' skills and competencies to keep pace withthe The training program is designed to include different pharmaceutical labour market both nationally and clinical specialties (such as: Cardiology -Cancer - Nutrition internationally. - Intensive Care - Drug Information Unit- clinical research ...etc.) according to the university's potential and society needs priorities.

# 1.4 What will I study?





# 1.0 THE FACULTY OF PHARMACY

## 1.5 How will I learn and be assessed?

Your study involves variable teaching and learning methods including lectures, tutorials, group work, private study and practical classes. Assessment involves assignments, written exams, oral exams, practical exams, presentations and projects.

Training during summer vacation and last year of the educational programme are also included. The research graduation project is related to the student area of interest.

## 1.6 What careers and further education opportunities are available to me after graduation?

Both Bachelor of Pharmacy (Pharm – D) and Bachelor of Pharmacy (Pharm – D Clinical) are prestigious degrees. They qualify graduates to obtain careers in all fields of pharmacy profession.

Career opportunities may be found in the following areas:

#### **Health Care Services**

- Community pharmacy
- Hospital pharmacy
- Clinical pharmacy
- Veterinary Pharmacy
- Nuclear Pharmacy

## **Pharmaceutical Industry**

- Production
- Quality Assurance
- Research and Development
- Promotion, Marketing and Sales

#### **Research and Academic Career**

- Universities
- Research Centres

## **Governmental and Regulatory Agencies**

- · Central Administration of Pharmaceutical Affairs, Ministry of Health and Population Institutions
- Environmental, Forensic & Drug Toxicology Units

### 1.7 How to apply for a programme in the Faculty of Pharmacy?

- (i) Read the admissions section in our general booklet. This can also be downloaded at www.bue.edu.eg
- (ii) Submit an application online at www.bue.edu.eg.
- (iii) Call the BUE hotline (19283) and contact the staff of Student Affairs Department for further information.

# 1.8 When to apply?

- (i) The early admissions period begins in January of each academic year.
- (ii) Applicants are encouraged to apply early in order to secure a place in their chosen programme of study.
- (iii) Once programmes are full the applicants will be placed on a waiting list.

# 1.9 Comparison between Pharm D and Pharm D Clinical

| ltem  | Pharm D  | Pharm D Clinical  |
|---|--|---|
| Degree  | Bachelor of Pharmacy (Pharm – D)   | Bachelor of Pharmacy (Pharm – D, Clinical)  |
| Years of Study  | 5 + 1 years  | 5 + 1 years   |
| License   | As Pharmacist  | As Pharmacist   |
| The first 5 years of study on campus                      | The modules taught during the first 3 semesters are similar in both programmes 3 modules of Clinical Pharmacy.  More of Chemistry, Pharmaceutics and Pharmacognosy | The modules taught during the first 3 semesters are similar in both programmes 9 modules Pharmacotherapy + Clinical Pharmacy Practice and Clinical Nutrition. |
| Electives   | 4 modules (more to Pharmaceutical Industry) (40 credits)   | 4 modules (more to Clinical Pharmacy)<br>(30 credits)   |
| Total credits of core<br>modules/ 5 years                 | 520 CR   | 530 CR  |
| Internship, 6th Year                                      | 4 compulsory rounds (pharmacies, clinical setting, pharmaceutical industry, and research project in the faculty) + 2 rounds in pharmaceutical industry locations   | 4 compulsory rounds (pharmacies, clinical setting, pharmaceutical industry, and research project in the faculty) + 2 rounds in clinical settings              |
| Research Graduation<br>Project                            | Related to training in the 6th year  | Related to training in the 6th year   |
| Weight of credits<br>according to academic<br>departments | Pharmaceutical Chemistry: 105 CR   | Pharmaceutical Chemistry: 85 CR   |
|   | Pharmacology: 80 CR  | Pharmacology: 80 CR   |
|   | Biochemistry: 30 CR  | Biochemistry: 35 CR   |
|   | Pharmaceutics: 95 CR   | Pharmaceutics: 75 CR  |
|   | Microbiology: 55 CR  | Microbiology: 50 CR   |
|   | Pharmacognosy: 50 CR   | Pharmacognosy: 40 CR  |
|   | Clinical Pharmacy: 105 CR  | Clinical Pharmacy: 165 CR   |



