



Degree Program History and Description

Bachelor's degree of PharmD:

The “Bachelor of Pharmacy” program for study in the Faculty of Pharmacy at Alexandria University was in accordance with the regulations issued by Ministerial Resolution number 10 dated Jan 8th 1970, and amendments were made to some provisions of the internal regulations in the years 1974, 1994, 1995, 1998 and 2007. In 2019, a Ministerial Resolution number 4200 dated Sept 18th 2019 was issued for the current bachelor's degree of PharmD. The first student intake was in the of Fall 2019. The first graduates of the PharmD program will finish their academic studies in June 2024 and will undertake their mandatory professional training from September 2024 to June 2025. In the First year of this program, the number of the students enrolled was 495 students of which approximately 7% are international students.

The program mission is to prepare pharmacists with professional ethics and qualified with the latest concepts in pharmacy and health-care that enables them to contribute to the development of pharmaceutical industries and raise the efficiency of the health-care system at the local and regional levels by providing pharmaceutical services at a professional level in public and private pharmacies, pharmaceutical factories, drug control laboratories and food analysis, in addition to working in the field of drug information, and marketing, and actively participating in scientific research through research centers and universities to serve the community.

The study language of the program is in English. The duration of the study in the program is five academic years (five levels over ten semesters) and a mandatory advanced training year (5 + 1) according to the credit hours system in addition to 100 hours of summer training. Each academic level is divided into two semesters (fall and spring) and the duration of each semester is fifteen weeks. Some courses may be offered in a summer semester of six to eight weeks of

University of Alexandria Egypt - Address: Guish Road, El-Shatby Alexandria, Egypt – (ZIP: code: 21526).

Phone: +20 (3) 5921675/6/7/8 – **Fax:** +2(03) 5921675, **e-mail** president@alexu.edu.eg

website: <https://www.alexu.edu.eg/index.php/en/>

Faculty of Pharmacy– Address: Alazarita, Sultan Hussein St, Khartoum sq., Alexandria, Egypt- (ZIP: 21521)

Phone: +20(3) 4871668. **website:** <https://pharmacy.alexu.edu.eg/>



intensive study. The study in the summer semester is optional, whether for the student or the lecturer who teaches the course according to the facilities available in the faculty. Courses can be taught fully or partially electronically, and students can be assessed, and exams can be taken electronically.

The credit hour is the unit of study and is equivalent to one contact hour of theoretical weekly study or two contact hours of practical lessons in one semester (15 weeks), or four contact hours of field training per week in a semester of 15 weeks i.e., a total of 48 to 50 contact hour of field training is equivalent to one credit hour.

Admission requirements

It is required for those applying to join the program to fulfill all the conditions specified by the Supreme Council of Universities in Egypt.

Transfer of students enrolled in a similar program in one of the pharmacy colleges in Egyptian or foreign universities may be accepted, provided that the student meets the requirements for admission of the Faculty of Pharmacy at Alexandria University, and the courses that the student studied in the other faculty are transferred according to the rules determined by the Faculty Council, provided that the maximum number of academic hours allowed to be transferred for the student do not exceed 40% Of the total number of credit hours for the program the student is enrolled in. Taking into consideration that the cumulative assessment of the student (Cumulative grade points average - cGPA) is not less than (3) and that the proportion of congruence in the content of accepted courses is not less than 75% and that the number of hours be identical.

University of Alexandria Egypt - Address: Guish Road, El-Shatby Alexandria, Egypt – (ZIP: code: 21526).

Phone: +20 (3) 5921675/6/7/8 – **Fax:** +2(03) 5921675, **e-mail** president@alexu.edu.eg

website: <https://www.alexu.edu.eg/index.php/en/>

Faculty of Pharmacy– Address: Alazarita, Sultan Hussein St, Khartoum sq., Alexandria, Egypt- (ZIP: 21521)

Phone: +20(3) 4871668. **website:** <https://pharmacy.alexu.edu.eg/>



Program design and teaching methods

The total number of credit hours in the study plan is 175 credit hours (167 compulsory hours + 8 hours elective courses to be chosen from the list determined by the faculty), in addition to the university requirements, which are 3 compulsory courses: (1) Critical Thinking, (2) Social Issues, and (3) Entrepreneurship and Innovation. Each of these courses is 2 credit hours. In addition to another 3 electives from courses delivered by other faculties in the university (each course is 2 credit hours). These courses are graded as pass/fail (university requirements) and are not included in the cGPA.

The learning system is through theoretical lectures, group discussions, practical sessions, workshops, field training, research and presentation of proposals, in addition to cooperation with the community surrounding the university and learning through the work environment.

Registration

The faculty assigns for each group of students an academic advisor from the faculty members who performs the tasks of care and guidance and is responsible for the student in scientific, social, and psychological affairs and guides him in everything related to his university life and assists students in choosing courses from the list of courses offered by the faculty in each semester. The opinion of the academic advisor is advisory and non-binding. Each student must personally register the courses he/she wishes to study in each semester. However, the courses and the number of credit hours should be chosen via consultation and agreement with the academic advisor. However, the registration of courses is only approved with the approval of the academic advisor in the case of students who have a GPA of less than one. For a course to be registered, the student must successfully pass its pre-requisite.

University of Alexandria Egypt - Address: Guish Road, El-Shatby Alexandria, Egypt – (ZIP: code: 21526).

Phone: +20 (3) 5921675/6/7/8 – **Fax:** +2(03) 5921675, **e-mail** president@alexu.edu.eg

website: <https://www.alexu.edu.eg/index.php/en/>

Faculty of Pharmacy– Address: Alazarita, Sultan Hussein St, Khartoum sq., Alexandria, Egypt- (ZIP: 21521)

Phone: +20(3) 4871668. **website:** <https://pharmacy.alexu.edu.eg/>



Academic load

The academic load is the number of credit hours a student registers in one semester and it must be considered that the student's registered academic load in any semester should not be less than 12 credit hours and not more than 22 credit hours and that the academic load for students with GPA below one should not exceed 12 credit hours.

The academic load during the summer semester, is of a maximum of 10 credit hours. The Faculty Council may allow the student in the last semesters to increase the academic load with not more than 3 credit hours (the student benefits from this privilege once).

Add, drop and withdrawal:

After completing the registration procedures, the student may add or drop a course or more in any semester, if this is during the specified periods according to the announced university calendar for each semester taking into consideration the minimum and maximum academic loads. After registration, the student may also withdraw from one or more courses in any semester without being considered failing in this course, if he/she submits the request to withdraw during the specified periods according to the university calendar announced for each semester.

Attendance

The student must attend the theoretical lectures, group discussions, practical sessions, field training and assignments, and the Faculty Council, upon the request of the councils of the relevant scientific departments, may deprive the student of applying for the final written examination if his/her absence exceeds 25% of the total contact hours for each course. A grade of (FW) is made for him/her and he/her must re-sit the course.

The student must sit for the final written exams according to the dates determined for them according to the university calendar announced for each semester. The student is not

University of Alexandria Egypt - Address: Guish Road, El-Shatby Alexandria, Egypt – (ZIP: code: 21526).

Phone: +20 (3) 5921675/6/7/8 – **Fax:** +2(03) 5921675, **e-mail** president@alexu.edu.eg

website: <https://www.alexu.edu.eg/index.php/en/>

Faculty of Pharmacy– Address: Alazarita, Sultan Hussein St, Khartoum sq., Alexandria, Egypt- (ZIP: 21521)

Phone: +20(3) 4871668. **website:** <https://pharmacy.alexu.edu.eg/>



considered to be a failure in case of absence for a compulsive excuse accepted by the Faculty Council. The student or his/her guardian must fill in such a case an incomplete course request, and he/she shall sit for exam in this course at the beginning of the next semester.

Grading and assessment system

The final grade of the course consists of the sum of grades for the semester work and the practical, written, and oral exams. The minimum passing score for any course is 60% of the total score for this course, and the student does not pass in any course unless he/she obtains 30% of the final written exam score. The percentage equivalent to each grade are as shown in the following table.

Description of Grade	Grade	Points	Percentage
Excellent	A+	4.00	95 and more
	A	3.85	From 90 to less than 95
	A-	3.7	From 85 to less than 90
Very Good	B+	3.3	From 82.5 to less than 85
	B	3	From 77.5 to less than 82.5
	B-	2.7	From 75 to less than 77.5
Good	C+	2.3	From 72.5 to less than 75
	C	2	From 67.5 to less than 72.5
	C-	1.7	From 65 to less than 67.5
Satisfactory	D+	1.3	From 62.5 to less than 65
	D	1	From 60 to less than 62.5
Fail	F	0	Less than 60
Withdrawn	W	-	
Forced withdrawal	FW	-	

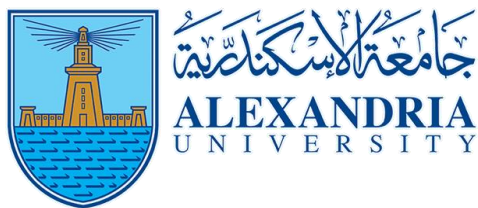
University of Alexandria Egypt - Address: Guish Road, El-Shatby Alexandria, Egypt – (ZIP: code: 21526).

Phone: +20 (3) 5921675/6/7/8 – **Fax:** +2(03) 5921675, **e-mail** president@alexu.edu.eg

website: <https://www.alexu.edu.eg/index.php/en/>

Faculty of Pharmacy– Address: Alazarita, Sultan Hussein St, Khartoum sq., Alexandria, Egypt- (ZIP: 21521)

Phone: +20(3) 4871668. **website:** <https://pharmacy.alexu.edu.eg/>



Military withdrawal	MW	-	
Incomplete	I	-	
Absent	E	-	
Audit	AU	-	

*I: The student gets this symbol if the attendance rate is fulfilled and he/she is unable to enter the final and oral written exam (if any) for one or more academic courses in the same semester for reasons accepted by the Faculty Council, and he/she must perform the final and oral written exam (if any) only at a date not later than the second week of the next semester and the student keeps his/her scores during the semester.

**E: The student gets this symbol if he/she is unable to enter the final and oral written exam (if any) at the aforementioned date in the previous paragraph because the compelling reason has not disappeared, and the student must register in this course when it is offered again and study it fully again and he/she will receive the new grades that he/she will score.

There are other evaluation symbols that are not matched by points - used in some graduation requirements - and they are:

P: Pass for a course not included in the GPA, such as training and university requirements

T: Degrees obtained by a transferred student from another Faculty of Pharmacy (Transferred)

U: Ungraded Course

University of Alexandria Egypt - Address: Guish Road, El-Shatby Alexandria, Egypt – (ZIP: code: 21526).

Phone: +20 (3) 5921675/6/7/8 – **Fax:** +2(03) 5921675, **e-mail** president@alexu.edu.eg

website: <https://www.alexu.edu.eg/index.php/en/>

Faculty of Pharmacy– Address: Alazarita, Sultan Hussein St, Khartoum sq., Alexandria, Egypt- (ZIP: 21521)

Phone: +20(3) 4871668. **website:** <https://pharmacy.alexu.edu.eg/>



The student's grade point average (GPA) and cumulative GPA (cGPA) are calculated as follows:

$$\text{Grade Point Average (GPA) in a semester} = \frac{\text{Total Number of Points in the semester}}{\text{Total Number of Registered Credit Hours in that semester}}$$

The GPA ranges between 0 to 4.

Cumulative Grade Point Average, cGPA is calculated as follows:

$$\text{Cumulative Grade Point Average, cGPA} = \frac{\text{Total Number of Points in all semesters}}{\text{Total Number of Registered Credit Hours in all semester}}$$

For GPA and cGPA, the result is rounded to two decimal places.

Example of calculating the GPA in a semester

Course Title	Credit Hours	Marks Achieved by the Student (Percent Out of 100)	Course Grade	Grade Points
X1	1	95	A+ (4.0)	1 X 4.0 = 4.0
X2	3	87	A ⁻ (3.7)	3 X 3.7 = 11.1
X3	3	85	A ⁻ (3.7)	3 X 3.7 = 11.1
X4	3	72	C (2.0)	3 X 2.0 = 6
X5	3	90	A+ (4.0)	3 X 4.0 = 12
X6	2	85	A ⁻ (3.7)	2 X 3.7 = 7.4
X7	2	77	B ⁻ (2.7)	2 X 2.7 = 5.4
X8	1	73	C ⁺ (2.3)	1 X 2.3 = 2.3
X9	1	85	A ⁻ (3.7)	1 X 3.7 = 3.7
X10	1	87	A ⁻ (3.7)	1 X 3.7 = 3.7
Total	20			66.7
GPA in the semester = 66.7 ÷ 20 = 3.34				

University of Alexandria Egypt - Address: Guish Road, El-Shatby Alexandria, Egypt – (ZIP: code: 21526).

Phone: +20 (3) 5921675/6/7/8 – **Fax:** +2(03) 5921675, **e-mail** president@alexu.edu.eg

website: <https://www.alexu.edu.eg/index.php/en/>

Faculty of Pharmacy– Address: Alazarita, Sultan Hussein St, Khartoum sq., Alexandria, Egypt- (ZIP: 21521)

Phone: +20(3) 4871668. **website:** <https://pharmacy.alexu.edu.eg/>



Underachievement

The underachievement of the student is considered if he/she obtains a cGPA of less than “one”. A student who obtains a GPA of less than 1 for a period of six consecutive semesters or ten unrelated semesters shall be dismissed from the faculty after the approval of the Faculty Council. In this respect, the summer semesters, if any, will not be taken into consideration. The student with underachievement is allowed to re-study the courses he/she has passed with a grade of D in order to improve his/her cGPA and the higher score that the student obtains is calculated in his/her cGPA.

Maximum study period

The maximum time limit for a student to obtain the degree is twice that of the original study period of the program.

The Faculty Council may consider the possibility of granting a student subject to dismissal as a result of his/her exceeding the maximum period of study, one last opportunity of two main semesters if he/she was in the final year and has completed at least 80% of the credit hours for the program in which the student is enrolled and has a cGPA of not less than one.

Graduation times

The faculty allows students to graduate in three times for same academic year:

- June Graduates (after the end of the spring semester of the academic year)
- September Graduates (after the end of the summer semester of the academic year)
- January Graduates (after the end of the fall semester of the academic year)

University of Alexandria Egypt - Address: Guish Road, El-Shatby Alexandria, Egypt – (ZIP: code: 21526).

Phone: +20 (3) 5921675/6/7/8 – **Fax:** +2(03) 5921675, **e-mail** president@alexu.edu.eg

website: <https://www.alexu.edu.eg/index.php/en/>

Faculty of Pharmacy– Address: Alazarita, Sultan Hussein St, Khartoum sq., Alexandria, Egypt- (ZIP: 21521)

Phone: +20(3) 4871668. **website:** <https://pharmacy.alexu.edu.eg/>



Honors:

The honors is awarded to the student who completes the graduation requirements in a period of no more than 10 basic semesters and that his/her semester average GPA must not be less than 2.70 points in any semester of study and that his/her cumulative GPA is at least 3.70 and he/she has not received an estimate Fail (F) in any course, or any disciplinary punishment is imposed on him/her during his/her studies.

In the event that the cGPA for the first graduates is equal during any of the graduation times for the same academic year, the result is rounded to four decimal numbers and a comparison is made between them according to the rules determined by the Faculty Council and the standards approved by the University Council and all the rules, laws and regulations regulated in the law organizing universities and its executive regulations.

Continuous learning

It is permissible for the Faculty Council upon the proposal of the councils of the academic departments and after the approval of the University Council to announce the opening of some courses or packages of courses for graduates from the same faculty or from faculties of pharmacy in other universities in accordance with the rules and regulations determined by the Faculty Council and after approval of the University Council. The learner will be granted, at the end of the period, a certificate of the courses that had been studied and passed.

Withdrawing from the program and changing the program

The student can cancel his/her enrollment in the program upon his/her request, and he/she can also apply for re-enrollment within four semesters of study at most, provided that he/she explains the justifications for canceling the enrollment and the justifications for re-enrollment and it is presented to the Faculty Council, and in the case of recommending approval, it is

University of Alexandria Egypt - Address: Guish Road, El-Shatby Alexandria, Egypt – (ZIP: code: 21526).

Phone: +20 (3) 5921675/6/7/8 – **Fax:** +2(03) 5921675, **e-mail** president@alexu.edu.eg

website: <https://www.alexu.edu.eg/index.php/en/>

Faculty of Pharmacy– Address: Alazarita, Sultan Hussein St, Khartoum sq., Alexandria, Egypt- (ZIP: 21521)

Phone: +20(3) 4871668. **website:** <https://pharmacy.alexu.edu.eg/>



presented to the University Council and the student is treated according to his/her previous position in the faculty before his/her enrollment was canceled. This can be done only once.

The student may change the academic program after spending a period in the faculty, after fulfilling the conditions for joining the new program and taking the opinion of the academic advisor and the approval of the Faculty's Education and Student Affairs Committee and the approval of the Faculty Council. Courses that the student has previously studied and passed may be counted as being among the requirements of the new academic program, and the rest of the irrelevant courses are not counted within the hours of the new academic program.

University of Alexandria Egypt - Address: Guish Road, El-Shatby Alexandria, Egypt – (ZIP: code: 21526).

Phone: +20 (3) 5921675/6/7/8 – **Fax:** +2(03) 5921675, **e-mail** president@alexu.edu.eg

website: <https://www.alexu.edu.eg/index.php/en/>

Faculty of Pharmacy– Address: Alazarita, Sultan Hussein St, Khartoum sq., Alexandria, Egypt- (ZIP: 21521)

Phone: +20(3) 4871668. **website:** <https://pharmacy.alexu.edu.eg/>



The Study Plan Semester (1)

#	Course Title	Course Code	Credit Hours		
			Lect.	P/T	Total
1	Pharmaceutical Analytical Chemistry I	02-06-07101	2	1	3
2	Pharmaceutical Organic Chemistry I	02-06-05101	2	1	3
3	Pharmacy Orientation	02-06-09101	1	---	1
4	Medicinal Plants	02-06-06101	2	1	3
5	Medical Terminology	02-06-02101	1	---	1
6	Information Technology	02-06-00101	1	1	2
7	Mathematics	02-06-00102	1	---	1
8	Social Issues *	02-00-00003	1	---	1
	Total		10	4	14

Semester (2)

#	Course Title	Course Code	Credit Hours		
			Lect.	P/T	Total
1	Pharmaceutical Analytical Chemistry II	02-06-07102	2	1	3
2	Pharmaceutical Organic Chemistry II	02-06-05102	2	1	3
3	Cell Biology	02-06-08101	1	1	2
4	Human Anatomy & Histology	02-06-02102	2	1	3
5	Physical Pharmacy	02-06-01101	2	1	3
6	Pharmacognosy I	02-06-06102	2	1	3
7	Psychology	02-06-09102	1	--	1
	Total		12	6	18

University of Alexandria Egypt - Address: Guish Road, El-Shatby Alexandria, Egypt – (ZIP: code: 21526).

Phone: +20 (3) 5921675/6/7/8 – **Fax:** +2(03) 5921675, **e-mail** president@alexu.edu.eg

website: <https://www.alexu.edu.eg/index.php/en/>

Faculty of Pharmacy– Address: Alazarita, Sultan Hussein St, Khartoum sq., Alexandria, Egypt- (ZIP: 21521)

Phone: +20(3) 4871668. **website:** <https://pharmacy.alexu.edu.eg/>



Semester (3)

#	Course Title	Course Code	Credit Hours		
			Lect .	P/T	Total
1	Pharmaceutical Analytical Chemistry III	02-06-07203	1	1	2
2	Pharmaceutical Organic Chemistry III	02-06-05203	2	1	3
3	Pharmacognosy II	02-06-06203	2	1	3
4	Physiology and Pathophysiology	02-06-02203	2	1	3
5	Pharmaceutics I	02-06-01202	2	1	3
6	Biochemistry I	02-06-08202	2	1	3
7	Critical Thinking *	02-00-00204	2	---	2
	Total		11	6	17

Semester (4)

#	Course Title	Course Code	Credit Hours		
			Lect .	P/T	Total
1	General Microbiology & Immunology	02-06-04201	2	1	3
2	Instrumental Analysis	02-06-07204	2	1	3
3	Pathology	02-06-04202	1	1	2
4	Pharmaceutics II	02-06-01203	2	1	3
5	Synthesis and Spectroscopic analysis of organic compounds	02-06-05204	1	1	2
6	Biostatistics & Evidence-based Medicine	02-06-09203	1	1	2
7	Biochemistry II	02-06-08203	2	1	3
8	University Elective*	02-06-EXX	2	--	2
	Total		11	7	18

University of Alexandria Egypt - Address: Guish Road, El-Shatby Alexandria, Egypt – (ZIP: code: 21526).

Phone: +20 (3) 5921675/6/7/8 – **Fax:** +2(03) 5921675, **e-mail** president@alexu.edu.eg

website: <https://www.alexu.edu.eg/index.php/en/>

Faculty of Pharmacy– Address: Alazarita, Sultan Hussein St, Khartoum sq., Alexandria, Egypt- (ZIP: 21521)

Phone: +20(3) 4871668. **website:** <https://pharmacy.alexu.edu.eg/>



Semester (5)

#	Course Title	Course Code	Credit Hours		
			Lec t.	P/T	Total
1	Pharmaceutical Microbiology	02-06-04302	2	1	3
2	Phytochemistry I	02-06-06304	2	1	3
3	Pharmaceutics III	02-06-01304	2	1	3
4	Scientific Writing and Communication skills	02-06-09304	1	1	2
5	Drug Information	02-06-09305	1	1	2
6	Drug Design	02-06-05305	1	1	2
7	Basic Pharmacology	02-06-02305	2	1	3
	Total		11	7	18

Semester (6)

#	Course Title	Course Code	Credit Hours		
			Lect.	P/T	Total
1	Parasitology and Virology	02-06-04303	2	1	3
2	Community Pharmacy Practice	02-06-09306	2	1	3
3	Phytochemistry II	02-06-06305	2	1	3
4	Pharmaceutics IV	02-06-01305	2	1	3
5	Medicinal Chemistry I	02-06-05306	2	1	3
6	Pharmacology & Pharmacotherapeutics I	02-06-02306	2	1	3
7	University Elective*	02-06-EXX	2	--	2
	Total		12	6	18

University of Alexandria Egypt - Address: Guish Road, El-Shatby Alexandria, Egypt – (ZIP: code: 21526).

Phone: +20 (3) 5921675/6/7/8 – **Fax:** +2(03) 5921675, **e-mail** president@alexu.edu.eg

website: <https://www.alexu.edu.eg/index.php/en/>

Faculty of Pharmacy– Address: Alazarita, Sultan Hussein St, Khartoum sq., Alexandria, Egypt- (ZIP: 21521)

Phone: +20(3) 4871668. **website:** <https://pharmacy.alexu.edu.eg/>



Semester (7)

#	Course Title	Course Code	Credit Hours		
			Lect.	P/T	Total
1	Medical Microbiology	02-06-04404	2	1	3
2	Biopharmaceutics and Pharmacokinetics	02-06-01406	2	1	3
3	Clinical Biochemistry	02-06-08404	2	1	3
4	First Aid	02-06-02407	1	1	2
5	Pharmacy Legislations and Professional Ethics	02-06-09407	1	--	1
6	Medicinal Chemistry II	02-06-05407	2	1	3
7	Pharmacology & Pharmacotherapeutics II	02-06-02408	2	1	3
8	Faculty Elective	02-06-0XEXX	1	1	2
	Total		13	7	20

Semester (8)

#	Course Title	Course Code	Credit Hours		
			Le ct.	P/T	Total
1	Clinical Pharmacokinetics	02-06-09408	2	1	3
2	Pharmaceutical Technology I	02-06-03401	2	1	3
3	Phytotherapy	02-06-06406	2	1	3
4	Toxicology & Forensic Chemistry	02-06-02409	2	1	3
5	Medicinal Chemistry III	02-06-05408	2	1	3
6	Pharmacology & Pharmacotherapeutics III	02-06-02410	2	1	3
7	Faculty Elective	02-06-0XEXX	1	1	2
8	University Elective*	02-06-EXX	2	--	2

University of Alexandria Egypt - Address: Guish Road, El-Shatby Alexandria, Egypt – (ZIP: code: 21526).

Phone: +20 (3) 5921675/6/7/8 – **Fax:** +2(03) 5921675, **e-mail** president@alexu.edu.eg

website: <https://www.alexu.edu.eg/index.php/en/>

Faculty of Pharmacy– Address: Alazarita, Sultan Hussein St, Khartoum sq., Alexandria, Egypt- (ZIP: 21521)

Phone: +20(3) 4871668. **website:** <https://pharmacy.alexu.edu.eg/>

	Total		13	7	20
--	-------	--	----	---	----

Semester (9)

#	Course Title	Course Code	Credit Hours		
			Lect.	P/T	Total
1	Pharmaceutical Biotechnology	02-06-04505	2	1	3
2	Public Health	02-06-04506	2	--	2
3	Pharmaceutical Technology II	02-06-03502	2	1	3
4	Clinical pharmacy I	02-06-09508	2	1	3
5	Hospital Pharmacy	02-06-09509	1	1	2
6	Pharmaceutical Management, Marketing & Pharmacoeconomics	02-06-09510	2	--	2
7	Faculty Elective	02-06-0XEXX	1	1	2
8	University Elective*	02-06-EXX	2	--	2
	Total		12	5	17

Semester (10)

#	Course Title	Course Code	Credit Hours		
			Lect.	P/T	Total
1	Quality Control of Pharmaceuticals	02-06-07505	2	1	3
2	Good Manufacturing Practice	02-06-03503	1	1	2
3	Advanced Drug Delivery Systems	02-06-01507	1	1	2
4	Drug interaction	02-06-09511	1	1	2
5	Clinical Pharmacy II	02-06-09512	1	1	2
6	Clinical Research, Pharmacoepidemiology and & Pharmacovigilance	02-06-09513	1	1	2
7	Faculty Elective	02-06-0XEXX	1	1	2
8	Innovation and Entrepreneurship *	02-06-00504	1	1	2
	Total		8	7	15

○ **Lect.** = Lecture, **Period.** = Periodical, **P/T** = Practical / Tutorial, **Wr.** = Written,

○ * **University Requirements**

University of Alexandria Egypt - Address: Guish Road, El-Shatby Alexandria, Egypt – (ZIP: code: 21526).

Phone: +20 (3) 5921675/6/7/8 – **Fax:** +2(03) 5921675, **e-mail** president@alexu.edu.eg

website: <https://www.alexu.edu.eg/index.php/en/>

Faculty of Pharmacy– Address: Alazarita, Sultan Hussein St, Khartoum sq., Alexandria, Egypt- (ZIP: 21521)

Phone: +20(3) 4871668. **website:** <https://pharmacy.alexu.edu.eg/>



Faculty Electives:

#	Course Code	Course Title	Credit Hours		
			L	P/T	Total
1	02-06-01-E01	Cosmetic Preparations	1	1	2
2	02-06-01-E02	Formulation of biologics	1	1	2
3	02-06-01-E03	Advanced Compounding	1	1	2
4	02-06-01-E04	Radiopharmaceuticals & Nuclear Medicine	1	1	2
5	02-06-02-E01	Biological Standardization	1	1	2
6	02-06-02-E02	Veterinary Pharmacology	1	1	2
7	02-06-02-E04	Management of Obesity	1	1	2
8	02-06-03-E01	Quality Assurance in Pharmaceutical Industries	1	1	2
9	02-06-03-E02	Research and Development in Industrial Pharmacy	1	1	2
11	02-06-04-E01	Gene regulation and epigenetics	1	1	2
12	02-06-04-E02	Antimicrobial stewardship	1	1	2
13	02-06-04-E03	Infection Control	1	1	2
14	02-06-04-E04	Bioinformatics	1	1	2
15	02-06-05-E01	Advanced Computer Aided Drug Design	1	1	2
16	02-06-06-E01	Complementary and Alternative Medicines	1	1	2
17	02-06-06-E02	Production and Manufacture of Medicinal plants	1	1	2
18	02-06-06-E03	Chromatography and Separation Techniques	1	1	2
19	02-06-06-E04	Applied Forensic Pharmacognosy	1	1	2
20	02-06-07-E01	Advanced Pharmaceutical Analysis - Spectroscopy	1	1	2
21	02-06-07-E02	Reverse Formulation	1	1	2
22	02-06-07-E03	Medical Devices	1	1	2
23	02-06-08-E01	Clinical nutrition	1	1	2

University of Alexandria Egypt - Address: Guish Road, El-Shatby Alexandria, Egypt – (ZIP: code: 21526).

Phone: +20 (3) 5921675/6/7/8 – **Fax:** +2(03) 5921675, **e-mail** president@alexu.edu.eg

website: <https://www.alexu.edu.eg/index.php/en/>

Faculty of Pharmacy– Address: Alazarita, Sultan Hussein St, Khartoum sq., Alexandria, Egypt- (ZIP: 21521)

Phone: +20(3) 4871668. **website:** <https://pharmacy.alexu.edu.eg/>



24	02-06-08-E02	Pharmacogenomics and Personalized medicine	1	1	2
25	02-06-09-E01	Health informatics	1	1	2
26	02-06-09-E02	Logistics and Supply Chain Management in Healthcare	1	1	2

University of Alexandria Egypt - Address: Guish Road, El-Shatby Alexandria, Egypt – (ZIP: code: 21526).

Phone: +20 (3) 5921675/6/7/8 – **Fax:** +2(03) 5921675, **e-mail** president@alexu.edu.eg

website: <https://www.alexu.edu.eg/index.php/en/>

Faculty of Pharmacy– Address: Alazarita, Sultan Hussein St, Khartoum sq., Alexandria, Egypt- (ZIP: 21521)

Phone: +20(3) 4871668. **website:** <https://pharmacy.alexu.edu.eg/>