

University of Baghdad

College of Pharmacy

Self- Assessment
Report
2016-2017

Pharmaceutics Department

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Introduction

1.1 History

The College of Pharmacy, University of Baghdad was established in 1936 to prepare pharmacists providing pharmaceutical and chemical services required by the nation.

The college occupied the building temporarily attached to the Royal Hospital in Bab Al-Muadam region in Baghdad. In the 1947/1948 a branch of scientific study of chemistry bachelor's degree was introduced and the college was named Faculty of Pharmacy and Chemistry until the year 1958 / 1959 where the college was attached to the Faculty of Pharmacy at the University of Baghdad instead of being affiliated to the Directorate of General Health in the Ministry of the Interior Affairs and the Ministry of Social Affairs, and then the Ministry of Health over the previous period

In the year of 1959 / 1960 the certificate granted to college graduates was a Bachelor of Science in Pharmacy.

The postgraduate studies in the college started at the academic year (1972–1973) to obtain the M.Sc. degree in Pharmaceutical science in its four departments: pharmaceutics, pharmaceutical chemistry, pharmacognosy, pharmacology and toxicology and in the academic year (1975–1976) the Ph.D. degree study started in pharmaceutical chemistry.

In 1979 / 1980 the college adopted the quarterly studying system. The duration of study is five years, after which the graduate obtains a bachelor degree in pharmacy.

To keep up with the evolution of scientific development, new branches have been added to the college, these include a branch of Clinical Laboratory Sciences in the year of 1984; the branch of Clinical Pharmacy in the year of 1993, bringing the number of the college departments into six instead of four.

1.2 Vision

The College of Pharmacy, University of Baghdad, strives to achieve excellence in teaching, research, and public services to be recognized as one of the leading colleges of pharmacy in the region.

1.3 Mission

The mission of the College of Pharmacy, University of Baghdad is to serve the nation through:

1. Educate, train and prepare students to become leading pharmacists and scientists, performing their roles and responsibilities for public service in delivering Pharmaceutical care, education, and research
2. Attain international standards in pharmaceutical education
3. Advance scientific discovery and development, and
4. Provide scientific advice to maximize and establish synergistic collaborations with the health care systems and industrial partners both in governmental ministries and private sectors for better patient care and public service.

2. Organization and Management

The college must be organized and staffed to facilitate the accomplishment of its mission and goals. The college administration must have defined lines of authority and responsibility. The organizational structure of the College of Pharmacy is diagrammed in Diagram I.

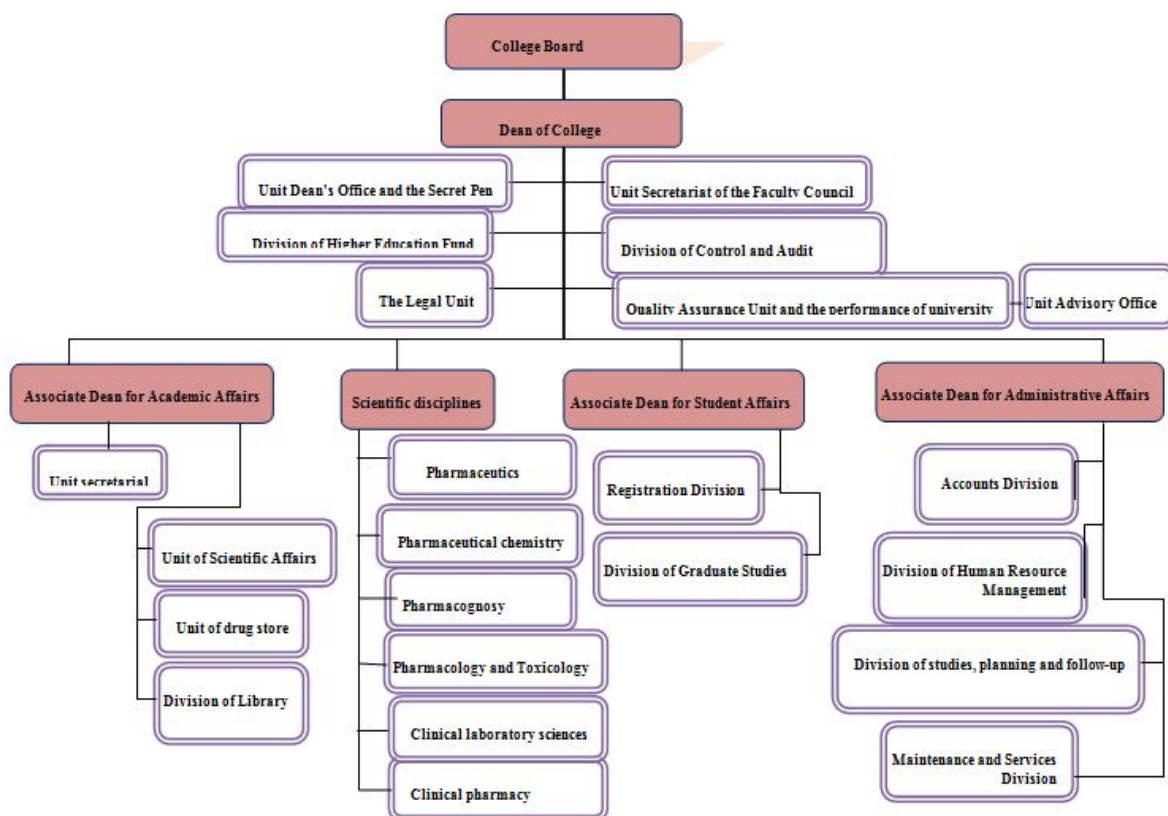


Diagram I: Organizational structure of the college of pharmacy

Administratively, the College is organized with a dean, who is assisted by an Assistant Dean for Academic Affairs, an Assistant Dean for Student Affairs, an Assistant Dean for Administrative Affairs.

The Dean's Office is the executive office of the college. It is the Dean's duty, to enforce the rules of the college, and to administer discipline in the case of violations.

The Associate Dean for Academic Affairs is responsible for all academic matters of the College. The Assistant Dean for Student Affairs coordinates all student related organizations and activities, including admissions, registration, counseling, and

academic advising so that students may develop as caring, ethical, and knowledgeable health care professionals.

The Assistant Dean for Administrative Affairs is responsible for organizing staff, faculty and facility matters.

2.1 Departments within the College of Pharmacy

The College is divided into five departments, which delineate the primary disciplines defining the pharmaceutical sciences; these include the departments of: Pharmaceutical Sciences, Medicinal Chemistry, Pharmacognosy, Pharmacology/Toxicology, Clinical Laboratory Sciences and Clinical Pharmacy. This administrative structure serves the College well in that the five disciplines represent unique domains of knowledge within the pharmaceutical sciences, and therefore, collaborative projects, the securing and sharing of research resources and graduate educational experiences are optimized through this departmental structure.

3. Faculty, Staff and Facilities

Multipurpose laboratories, classrooms, and seminar rooms are conveniently distributed throughout the facility.

3.1 Faculty members

The faculty members' names with their research areas are mentioned in Appendix A.

3.2 Interactions with governmental organizations and ministries

To maintain and upgrade the professional degree program, the university president and the dean must collaborate to meet the entire requirement of accreditation standards.

The Dean, faculty, staff and students from the college of pharmacy participate in university governance and directly apply principles set forth in the guidelines.

Many members of the college play important roles in applying the guidelines on the relationship between the college and the larger academic community in the university. This includes holding joint or affiliate appointments in academic departments outside the college; participating in university-wide centers, programs or committees; and teaching courses in other colleges.

3.2.2 College and other Ministries interaction

The college affiliate to the ministry of higher education administratively, technically and financially. The decisions of College Board are ratified by the ministry through the university and the college is obligated by the laws exported from the ministry.

The college of pharmacy has also collaboration with other governmental ministries such as and their related centers such as:

- Ministry of Science and Technology centers such as the Center for Materials Research,
- Ministry of industry and minerals centers such as Ibn-Sina Center for Researches
- Ministry of Health (M.O.H): the college of pharmacy has established joint scientific seminars and conferences between the college and the ministry to strengthen the role of the pharmacist in the community and hospital. Hospital training for the fifth year students is another example of collaboration between the college and M.O.H.

3.3 Faculty Development

Faculty professional development activities include: attending seminars and lectures, participation in training workshops, attending professional conferences, professional writing activities and review activities, in addition to conducting new and original research.

3.4 Student and Faculty Involvement

Faculty and students are both integrally involved with the assessment processes.

Faculty evaluate student work on examinations, exercises, projects, research and practice laboratories, experiential rotations, thesis projects, group meetings, as well as interactions with external members of the respective professions. Faculty also evaluates student course and individually interact with students to obtain feedback on quality of instruction.

3.5 Space

The faculty and students have sufficiently adequate (with minimum requirements) facilities available for conducting a successful program. The facilities include several classrooms, laboratories, faculty offices, college library, students club, and network access facilities.

We have one large conference hall (about 200 chairs) and two (50 chairs) meetings rooms, equipped with computer integrated projection equipment (Data Show). The network access facilities are provided by the Internet Center of the college in the form of a cable network and a limited wireless network connection to some offices and department head offices.

3.6 Faculty Offices

The faculty offices are located in different positions all over the college. Most of these offices are for two faculty members each, and some are for three members. The offices have adequate furniture, but not all are air-conditioned and not equipped with computers or network connection. It should be noted, though, that the faculty offices are small in size such that they are inadequate to hold a discussion between the faculty and more than 2-3 students. The average faculty office space is about 8-10 square meters.

3.7 Classrooms

The classrooms include 6 large classrooms. All are equipped with whiteboards, as the main tool for lecture presentation. Five of these classrooms are equipped with data show which can be used to deliver electronic class notes and perform in-class demos and presentations.

3.8 Laboratories

The college contains many laboratories for undergraduate and postgraduate students, which includes many devices and equipments used to conduct the experimental tests, in addition to the ability of using many of them to achieve different tests and other works to the government establishments, and private sector.

3.9 Laboratory Equipment Planning, Acquisition, and Maintenance

One of the most important and challenging problems encountered is the lack of specialized laboratory equipment and instrumentation in the research laboratories, in spite of considerable progress achieved by the college in this area.

The college continuously addresses any upgrades / additions for the labs by estimating the yearly budget needed for the labs and submitting it to the college dean and university. A new progress was achieved by adding equipment and instrument engineering staff to the college which helped a lot in providing equipment maintainace.

3.10 The College's Library

The library was established in 1962 and offers services to the students, faculty members and technical staff of the college. Besides, the library is also accessible to students and researchers from other colleges inside and outside the university, and also for researchers from various state offices and ministries.

The library has an area of 276 m² and contains 8373 English books including pure pharmaceutical related subjects and applied scientific subjects; in addition, it also contains 1036 books in Arabic. In addition to the books, the library contains 3950 volumes in English and 40 volumes in Arabic and 250 sporadic magazines; in addition, it contains about 320 treatises.

The library is provided with an internet line and is developing an electronic data base using Win ISIS program for electronic admission of treatise, books and magazines to create an electronic library. Appending to the library is the free education unit which is responsible for providing students with books with latest editions and in line with the latest developments in the scientific methods used internationally.

4. Students

4.1 Students Admissions

An applicant for licensure shall provide satisfactory evidence that the age of 18 years has been obtained and shall meet one of the following requirements:

1. He / She should have an Iraqi secondary school certificate, or its equivalent, and majored in natural or technological sciences.
2. Acceptance is centrally controlled by the Ministry of Higher Education and Scientific Research.
3. Top students from Technical Institutes Foundation, and the outstanding employees from state institutions and ministries are also accepted.
4. An applicant who has graduated from a high school system outside Iraq must provide an equivalency certificate from the Iraqi Ministry of Education before enrollment in the college of pharmacy.

4.2 Student Attendance

A student shall assume personal responsibility for his/her education. He/she must exercise professional and mature conduct at all times and be punctual, reliable and conscientious in fulfilling professional duties, including attendance at required course activities, examinations and clinical rotations.

Any student who is unable to attend classes or participate in any examination, study or work requirement on some particular day(s) may be given the opportunity either to make up the work that was missed or to do alternative work that is intrinsically no more difficult than the original exam or assignment — provided that the makeup work does not create an unreasonable burden upon the college and its faculty. Students should notify all instructors whenever possible to determine what accommodations and make-up arrangements can be provided.

4.3 Evaluating Student Performance

Student performance in each subject is evaluated by the faculty member, culminating with the assignment of a grade for that subject.

The number and types of graded assignments vary according to what is most appropriate for the subject in question. These assignments are generally a combination of examinations, quizzes, homework, and/or laboratory reports. Projects and/or oral presentations and seminars are required for some subjects. Certain assignments are graded by a group of the faculty or instructors. For example, at the end of the senior year, the student presents a final written graduation project report. The student also gives an oral presentation of his / her project work, and answer questions on it.

4.4 Academic Advice and Student Complaints

The college has an open door policy to meet student's needs and encourages open communication between students, faculty, staff and college administration. Appointments are encouraged to allow for ample time for discussion. Students have

several options for communication of concerns and complaints about their experience at the College

The College Office of Student Affairs handles all concerns and complaints from students. Students will meet with the Associate Dean for Student Affairs to discuss their concerns. Consultation with the Dean may be required in some situations.

The student will be advised of their options and the process to be followed with regard to the type of complaint. In many cases resolution occurs at the time of the discussion or may lead to further discussions with faculty and students.

When a complaint is submitted in writing, a copy will be kept on file in the College Office of Student Affairs with description of the advice and disposition related to the complaint. Complaints that result in a corrective action will be shared by the Department Chair(s) with the respective program's faculty.

4.5 Student Graduation Requirements

To become eligible for a Bachelor of Science degree in pharmacy program, a student must fulfill the academic status which includes the following requirements:

1. Passing the five academic years successfully within the maximum allowed period of study
2. Passing the summer training successfully.

5. Curriculum Development and Review

5.1 The Goal of the Curriculum

The college's professional degree program curriculum must prepare graduates with the knowledge that meets the criteria of good science; professional skills, attitudes, and values.

5.1.1 The goal of curriculum regarding pharmaceutical science department

The college curriculum regarding the department of pharmaceutics focuses on preparing students supplied with information and knowledge about pharmaceutical sciences including:

- **Pharmacy practice:** to understand the mathematical rules in pharmacy
- **Physical Pharmacy:** to understand the application of quantitative and theoretical principles of the physical characters of matter in the practice of pharmacy. Such knowledge will aid the pharmacists in their attempt to predict the solubility, compatibility and biological activity of drug products and therefore help in the development of new drugs and dosage forms as well as in improvement of various modes of administration.
- **Pharmaceutical technology:** to understand the different techniques used to prepare different dosage forms
- **Biopharmacy:** to have knowledge about fundamental information in field of biopharmaceutics as drug absorption, distribution, metabolism, and excretion. Also, to have knowledge about pharmacokinetics parameters as volume of distribution, clearance with its extraction ration, bioavailability, and principle of dosage regiments as single or multiple dosage forms
- **Industrial Pharmacy:** to study industrial processing, theory of dosage form on large scale, and to teach students how to suggest formula, prepare tablet dosage forms using different methods, coating of prepared tablets and evaluation of tablet; in addition to teaching about formulation and evaluation of capsules, and information about methods and importance of microencapsulation, so that in overall, the students can be qualified to work as industrial pharmacists.

- **Pharmaceutical Biotechnology:** to teach the students the fundamental rules in endogenous protein synthesis.
- **Drug Dosage Form Designs:** to teach the students the theory for new approaches in dosage form design.

5.2 Curriculum Program of Pharmacy College for Bachelor in Pharmacy

The college follows the annual system of study and its curriculum is built upon the achievement of specific student learning outcomes. These student learning outcomes, in turn, must align with the college's general ability and professional ability outcomes. The total credit requirement for the Bachelor degree is a total of (175) credits divided between 5 years of study years.

Typical degree program and coding is shown in Table (1). New subjects added are characterized by the symbol (**), while subjects that were modified and developed in the previous syllabus are characterized by the symbol (*).

The Code of College of Pharmacy is designated as (1003).

Table (1) Curriculum Program of Pharmacy College

	Stage	Department Name	Dept. No.	Dept. Code	Course name	Course No.	Course Code	Course title	Credit hr / week	
									Theory	Lab.
First Trimester	1	Clinical Laboratory Sciences	06	Cl	Human Biology*	01	Hb	101 ClHb	2	1
	1	Pharmaceutics	03	P	Principles of Pharmacy Practice	02	Ppp	102 PPpp	2	--
	1	Pharmaceutical Chemistry	02	Pc	Analytical Chemistry	03	Ac	103 PcAc	3	1
	1	Pharmacology and Toxicology	01	Pt	Medical Terminology	04	Mt	104 PtMt	1	--
	1	Clinical Laboratory Sciences	06	Cl	Mathematics and Biostatistics	05	Mb	105 CIMb	3	--
	1	Clinical Laboratory Sciences	06	Cl	Computer Sciences	06	Co	106 ClCo	2	1

Second Trimester	Stage	Department Name	Dept. No.	Dept. Code	Course name	Course No.	Course Code	Course title	Credit hr / week	
									Theory	Lab.
									1	Clinical Laboratory Sciences
1	Pharmaceutics	03	P	Pharmaceutical Calculations	08	Phc	108 PPhc	2	1	
1	Clinical Laboratory Sciences	06	Cl	Medical Physics	09	Mp	109 ClMp	2	1	
1	Pharmaceutical Chemistry	02	Pc	Organic Chemistry I*	10	Oc1	110 PcOc1	3	1	
1	Clinical Laboratory Sciences	06	Cl	Histology*	11	Hi	111 ClHi	2	1	
1	Clinical Laboratory Sciences	06	Cl	Human Rights	12	Hr	112 ClHr	1	--	

Total Credit for First Stage: 32 hr

First Trimester	Stage	Department Name	Dept. No.	Dept. Code	Course name	Course No.	Course Code	Course title	Credit hr / week	
									Theory	Lab.
									2	Pharmaceutical Chemistry
2	Clinical Laboratory Sciences	06	Cl	Medical Microbiology	14	Mm	214 ClMm	3	1	
2	Pharmaceutics	03	P	Physical Pharmacy I	15	Pp1	215 PPp1	3	1	
2	Pharmacology and Toxicology	01	Pt	Physiology I	16	Ph1	216 PtPh1	3	1	
2	Clinical Laboratory Sciences	06	Cl	Democracy**	17	De	217 ClDe	1	--	

Second Trimester	Stage	Department Name	Dept. No.	Dept. Code	Course name	Course No.	Course Code	Course title	Credit hr / week	
									Theory	Lab.
									2	Clinical Pharmacy
2	Pharmaceutical Chemistry	02	Pc	Organic Chemistry III*	19	Oc3	219 PcOc3	2	1	
2	Clinical Laboratory Sciences	06	Cl	Medical Virology and Parasitology	20	Mv	220 CIMv	2	1	
2	Pharmaceutics	03	P	Physical Pharmacy II	21	Pp2	221 PPp2	3	1	
2	Pharmacology and Toxicology	01	Pt	Physiology II	22	Ph2	222 PtPh2	3	1	
2	Pharmacognosy	05	Ph	Pharmacognosy I*	23	Pa1	223 PhPa1	3	1	

Total Credit for Second Stage: 39 hr

First Trimester	Stage	Department Name	Dept. No.	Dept. Code	Course name	Course No.	Course Code	Course title	Credit hr / week	
									Theory	Lab.
									3	Pharmaceutical Chemistry
3	Pharmacognosy	05	Ph	Pharmacognosy II	25	Pa2	325 PhPa2	2	1	
3	Pharmaceutics	03	P	Pharmaceutical Technology I	26	Pt1	326 PPt1	3	1	
3	Clinical Laboratory Sciences	06	Cl	Biochemistry I	27	Bi1	327 ClBi1	3	1	
3	Clinical Laboratory Sciences	06	Cl	Pathophysiology	28	Py	328 ClPy	3	1	

Second Trimester	Stage	Department Name	Dept. No.	Dept. Code	Course name	Course No.	Course Code	Course title	Credit hr / week	
									Theory	Lab.
									3	Pharmaceutical Chemistry
3	Pharmacology and Toxicology	01	Pt	Pharmacology I	30	Pc1	330 PtPc1	3	--	
3	Pharmaceutics	03	P	Pharmaceutical Technology II	31	Pt2	331 PPt2	3	1	
3	Clinical Laboratory Sciences	06	Cl	Biochemistry II	32	Bi2	332 ClBi2	3	1	
3	Pharmacognosy	05	Ph	Pharmacognosy III*	33	Pa3	333 PhPa3	2	1	
3	Clinical Pharmacy	04	Cp	Pharmacy Ethics**	34	Pe	334 CpPe	1	--	

Total Credit for Third Stage: 37 hr

First Trimester	Stage	Department Name	Dept. No.	Dept. Code	Course name	Course No.	Course Code	Course title	Credit hr / week	
									Theory	Lab.
									4	Pharmacology and Toxicology
4	Pharmaceutical Chemistry	02	Pc	Organic Pharmaceutical Chemistry II*	36	Op2	436 PcOp2	3	1	
4	Clinical Pharmacy	04	Cp	Clinical Pharmacy I*	37	Cp1	437 CpCp1	2	1	
4	Pharmaceutics	03	P	Biopharmaceutics	38	Bp	438 PBp	2	1	
4	Clinical Laboratory Sciences	06	Cl	Public Health*	39	Pu	439 ClPu	2	--	

Second Trimester	Stage	Department Name	Dept. No.	Dept. Code	Course name	Course No.	Course Code	Course title	Credit hr / week	
									Theory	Lab.
									4	Pharmacology and Toxicology
4	Pharmaceutical Chemistry	02	Pc	Organic Pharmaceutical Chemistry III	41	Op3	441 PcOp3	3	1	
4	Clinical Pharmacy	04	Cp	Clinical Pharmacy II*	42	Cp2	442 CpCp2	2	1	
4	Pharmacology and Toxicology	01	Pt	General Toxicology	43	Gt	443 PtGt	2	1	
4	Pharmaceutics	03	P	Industrial Pharmacy I	44	Ip1	444 PIp1	3	1	

Total Credit for Fourth Stage: 32 hr

First Trimester	Stage	Department Name	Dept. No.	Dept. Code	Course name	Course No.	Course Code	Course title	Credit hr / week	
									Theory	Lab.
									5	Pharmaceutical Chemistry
5	Pharmaceutics	03	P	Industrial Pharmacy II	46	Ip2	546 PIp2	3	1	
5	Clinical Pharmacy	04	Cp	Applied Therapeutics I*	47	At1	547 CpAt1	3	--	
5	Clinical Laboratory Sciences	06	Cl	Clinical Chemistry	48	Cc	548 ClCc	3	1	
5	Clinical Laboratory Sciences	06	Cl	Clinical Laboratory Training	49	Ci	549 ClCi	---	2	
5	Pharmacology and Toxicology	01	Pt	Clinical Toxicology	50	Ct	550 PtCt	2	1	
5	For all departments			Project**	51	Pr	551 Pr	1	--	

Second Trimester	Stage	Department Name	Dept. No.	Dept. Code	Course name	Course No.	Course Code	Course title	Cred it hr / week	
									Theory	Lab.
									5	Clinical Pharmacy
5	Clinical Pharmacy	04	Cp	Applied Therapeutics II*	53	At2	553 CpAt2	2	--	
5	Clinical Pharmacy	04	Cp	Therapeutic Drug Monitoring (TDM)*	54	Td	554 CpTd	2	1	
5	Pharmaceutical Chemistry	02	Pc	Advanced Pharmaceutical Analysis*	55	Ap	555 PcAp	3	1	
5	Clinical Pharmacy	04	Cp	Hospital Training	56	Ht	556 CpHt	--	2	
5	Pharmaceutics	03	P	Dosage Form Design	57	Df	557 PDf	2	--	
5	Pharmaceutics	03	P	Pharmaceutical Biotechnology**	58	Pb	558 PPb	1	--	

Total Credit for Fifth Stage: 35 hr

5.2 Examinations and Grading

Students will be provided with an examination schedule for each course at the final weeks of the semester. Scheduled examinations will not be changed once they have been posted unless being postponed due to college closure for certain circumstances and will be re-scheduled once the college reopens.

Students are expected to participate in all scheduled examinations and to notify the faculty, in advance, when they will be absent for an examination. In the event of an emergency situation, an examination can only be made up with prior approval of the course coordinator. Arrangements for make- tests are determined after coordination between the instructor and the office of Assistant Dean for Student Affairs.

5.3 Summer Training

The curriculum requires third and fourth year students to complete thirty days of summer training at private pharmacies and governmental hospitals.

This training is a compulsory component of graduation requirements. It is supervised by the Summer Training Committee of the department.

6. Research Activity

6.1 Research Strategic Plan

Research Strategic Plan is now being used to guide the College's efforts in increasing student and faculty research. This plan has the following outcomes:

- Increased opportunities for student pharmacists to be exposed to research and thus get a better grasp of the discipline and become more complete pharmacy professionals;
- Alignment of faculty interests, as much as possible, around several focused areas that could include changes in our infrastructure;

- Strategic research partnerships with local institutions that result in shared faculty, space, and grants; and
- Potential financial benefit from grant acquisitions with salary replacement and indirect cost recovery.

6.2 Graduate Programs of Study

The College of Pharmacy offers a program leading to the degrees of higher diploma, Master of Science and doctor of philosophy with specializations in pharmaceutical sciences, medicinal chemistry, pharmacognosy, clinical laboratory sciences, clinical pharmacy and pharmacology and toxicology.

6.2.1 Overview of the Master of Science Programs

The programs leading to the Master of Science degree are designed to prepare individuals to contribute to advances in areas of pharmacy, allied health and the biosciences. The Master of Science programs develop skills in critical thinking to prepare graduates for positions in research, industry, education and medical settings. In addition, graduates learn to interpret and critically review basic and clinical research in order to foster lifelong learning.

Students who plan to undertake graduate work in the Master of Science degree must hold an acceptable baccalaureate degree in pharmacy.

The Doctor of Philosophy program was formulated to prepare individuals to meet evolving needs in pharmaceutical education, research and industry. It allows graduates to assume leadership roles in education, research, government and industry. Graduates of the program become important resources in the preparation of faculty to teach in both graduate and undergraduate pharmacy and allied health professions programs and the development of expertise in pharmaceutical and biomedical research.

7. Teaching, Learning and Assessment

The College faculty members are actively seeking additional educational training opportunities to become more efficient in teaching curricular courses. The college, throughout the curriculum and in all program pathways, must use and integrate teaching and learning methods to produce graduates who become competent pharmacists by ensuring the achievement of the stated outcomes, fostering the development and maturation of critical thinking and problem-solving skills, meeting the diverse learning needs of students, and enabling students to transition from dependent to active, self- directed, life-long learners.

7.1 Student Responsibility for Learning

The College of Pharmacy program is learning-intensive and employs a variety of active learning methods and activities throughout the instructional process. Beginning in the very first semester, each student assumes the responsibility for his/her own learning. The instructors strive to deliver course and laboratory material in a manner that allows the students become active participants in the perpetual process of learning. At the beginning of the 1st year, the students are randomly divided into small groups and stay in these groups for the remainder of the year. Group projects, group discussions and case studies allow students to work with, cooperate with and respect one another. Students learn to recognize their strengths and weaknesses and discover ways to utilize their strengths and overcome their weaknesses. In addition, teamwork allows the students to develop effective communication skills.

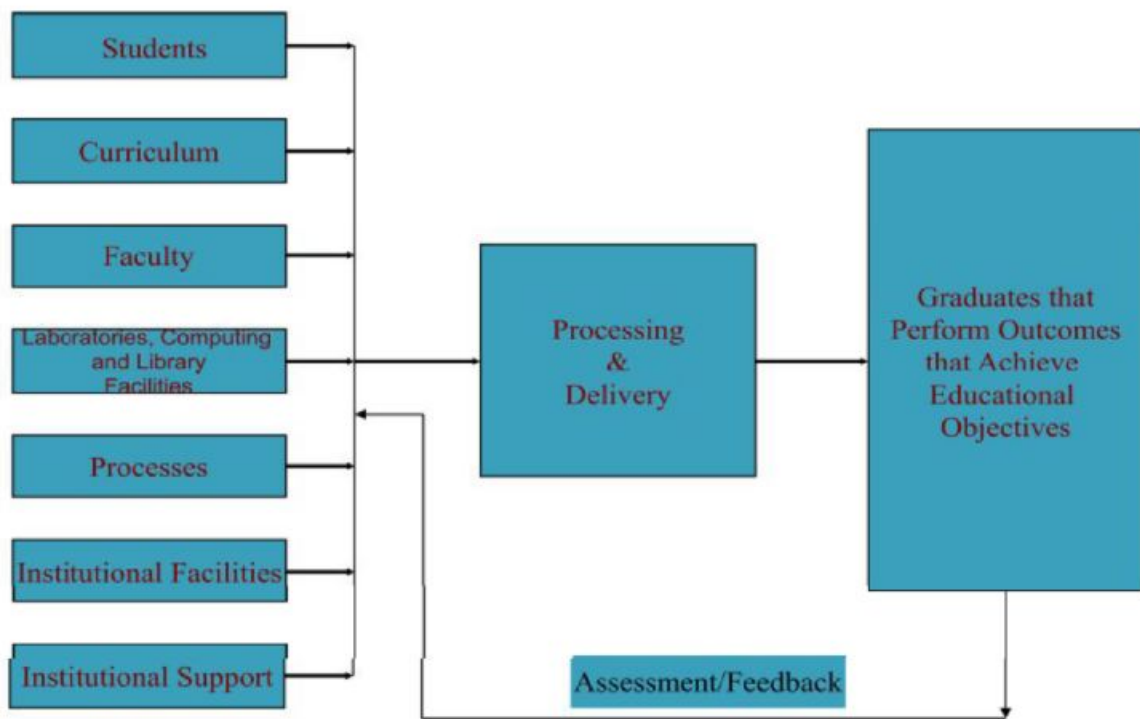
7.2 Faculty Methods for Learning

Faculty utilizes a variety of active learning strategies and other high level methods to enhance learning. Lecture is still used as a strategy by approximately 80% of courses; many active learning strategies were reported. Small group or whole class discussion, case-based instruction, laboratory-based instructions and team-based learning,

intensive writing, student presentations and several other strategies are being incorporated.

7.3 Teaching Assessment

Assessment and feedback practice is good in both teaching and training contexts. Assessment for learning strategies is applied extensively. Teachers make frequent checks on learning during lessons and summary activities confirm learning outcomes for all.



Assessment Model

8. Summary of SWOT Analysis and Recommendations for Improvement

7.1 SWOT Analysis for Faculty and Staff

STRENGTHS	WEAKNESSES
<ol style="list-style-type: none"> 1. Highly qualified faculty 2. Positive relationship between faculty and students. 3. Clear promotion bylaws for new and existing employees. 	<ol style="list-style-type: none"> 1. Limited time available to communicate with students regarding their academic courses or future career opportunities. 2. Faculty members are generally overloaded with both academic and administrative duties 3. Lack of trained employed technicians for operating and maintaining of college assets of advanced scientific equipment. 4. Inadequate administrative staff supports. 5. Lack of clear procedures for faculty and staff performance evaluation. 6. Weak and limited availability for faculty and staff e-services. 7. Lack of proper training plan on the emergency evacuation systems 8. Faculty and staff development programs needs to be enhanced.

OPPORTUNITY	THREAT
<ol style="list-style-type: none"> 1. Further development and expansion of the college's relationships with all aspects of the drug and healthcare industry 2. Assess public service needs (removal/limitation of drug exposure in the environment, improving medication safety, supporting the Medical Service Corps). 3. Explore the potential collaboration with other educational institutions 4. Increase the number of post-graduate training programs (residencies, fellowships and post-doctoral programs) and investigate ways to incorporate them in College's activities 5. Establish systematic ongoing development programs for faculty, administrators, staff, to enhance scholarship, leadership development and the student centered delivery of college curricula (teaching); and to encourage faculty, administrators and staff members to attend University and College sponsored professional development programs 	<ol style="list-style-type: none"> 1. Availability, management and cost of experiential education 2. Competition rather than planned collaboration, i.e., interest of other Colleges, to establish programs that can be most effectively and efficiently offered by the College of Pharmacy

7.2 SWOT Analysis for Facility

STRENGTHS	WEAKNESSES
<ol style="list-style-type: none"> 1. Large teaching halls are available 	<ol style="list-style-type: none"> 1. Lack of work spaces in some departments. 2. Lack of clinics for emergency medical services. 3. Weak maintenance and cleaning services for buildings and spaces inside the college. 4. Limited students' car parking area. 5. Limited computer labs and computer service and internet service for both students and faculty members
OPPORTUNITY	THREAT
<ol style="list-style-type: none"> 1. Expansion of facility area 2. Investigate the possible establishment of a community pharmacy and Clinic that will serve the healthcare needs of the college community 	<p>Lack of allocated infrastructure for the expansion of the college.</p>

7.3 SWOT Analysis for Students, teaching and learning

STRENGTHS	WEAKNESSES
<ol style="list-style-type: none"> 1. Positive academic communication and interaction between the students and the staff. 2. More roles given to students in solving their own problems. 	<ol style="list-style-type: none"> 1. Weakness in the students' English language level. 2. The culture of being “spoon-fed”. 3. Lack of an "Exams Bank" model to provide sample exams from previous years. 4. Limited areas available for students for reading or studying. 5. Limited student participation in research conducted in the college. 6. Some student Laboratory equipment needs updating. 7. High academic load leads to limited time for extra-curricular activities and interaction with faculty members. 8. High teaching load on the expense of the research. 9. Some curricula need to be updated 10. Poor interactive e- teaching techniques

OPPORTUNITY	THREAT
<ol style="list-style-type: none"> 1. Skill development courses offered by college to improve graduates' qualifications. 2. The large number of pharmaceutical companies operating can provide extensive training sites for students' training. 3. Participation of quality control centers in providing practical training assistance for students to be involved with the educational process 4. Motivation of students to be outstanding pharmacists by using improved teaching skills 5. Media (audio, video, and newspapers) can be used to increase the awareness regarding pharmacists' role in the community. 6. Enhance student engagement in the College by conducting workshops 	<ol style="list-style-type: none"> 1. Private universities can attract outstanding students. 2. Private universities, graduates compete with graduates for jobs in work areas. 3. Lack of community awareness of pharmacists' role in job markets and in the community. 4. Increased numbers of graduated students thereby inappropriate teacher/student ratio 5. Instability of the country situation (political, security, economic... etc.) 6. The policy of third trials and re-exams will create pharmacists with low skills and will give the students a wrong perception of being able to "always pass" the exams

<p>7. Increase the use of technology to enhance student engagement and establish faculty and staff development programs to improve the use of technology</p> <p>8. Enhance interpersonal communication and interactions between students and faculty to facilitate academic excellence, for example by exploring the feasibility of reducing class size/section enrollment and encourage the use of active learning strategies in the classrooms/labs</p>	
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7.4 SWOT Analysis for Research

STRENGTHS	WEAKNESSES
1. Established Master's and Ph.D. programs in all departments	<ol style="list-style-type: none">1. Lack of proper acquisition system for research supplies (e.g., chemicals, glassware and equipment).2. Limited availability of access to scientific journals and full-text databases such as MEDLINE3. Lack of some advanced instruments required for some research projects.4. Limited transfer of basic research to the applied research.5. Supervision of postgraduate students from areas outside Baghdad must be from the same college where the student is studying

OPPORTUNITY	THREAT
<ol style="list-style-type: none"> 1. Available programs to make communication with the external stakeholders such as hospitals and drug companies. 2. Establishment of external scholarships. 3. Availability of overseas collaboration 4. Establishment of a specialized center nearby the facility for research equipped with instruments and specialized technicians that will operate the center 	<ol style="list-style-type: none"> 1. External research centers in other universities can attract outstanding researchers. 2. Insufficient availability of research lab space to accommodate postgraduate research

9. Appendices

Appendix A: Faculty in the College of Pharmacy

College Board

Dean/President of The College Board	Professor Dr. Ahmed Abbas Hussein
Associate Dean for Student Affairs	Assistant Professor Maha Noori
Associate Dean for Academic Affairs	Assistant Professor Dr. Shaimaa Nazar Abd Alhammid
Associate Dean for Administrative Affairs	Assistant Professor Dr. Eman Saadi
Chief of pharmaceuticals	Assistant Professor Dr. Mowafiq Mohammed Ghareeb
Chief of the Pharmaceutical Chemistry	Assistant Professor Dr. Mohamed Hassan Mohamed
Chief of the drugs and medicinal plants	Assistant Professor Dr. Mowafiq Mohammed Ghareeb
Chief of the Pharmacology and Toxicology	Assistant Professor Dr. Sajida Ismaeel
Chief of the Clinical Laboratory Science	Assistant Professor Dr. Mohamed Abbas
Chief of Clinical Pharmacy	Assistant Professor Dr. Hayder Fakhri
Council Secretary	Assistant Professor Eman Baker

Department of Pharmaceutics

	Faculty Member	Rank	Degree
1.	Ahmed Abbas Hussien احمد عباس حسين	Professor	PhD
2.	Mowafiq Mohammed Ghareeb موفق محمد غريب	Asst. Prof.	PhD
3.	Shaimaa NazarAbid Al-Hameed شيماء نزار عبد الحميد	Asst. Prof.	PhD
4.	Nawal Ayash Rijab نوال عياش رجب	Asst. Prof.	PhD
5.	Eman Baker Hazim ايمان بكر حازم	Asst. Prof.	M.Sc.
6.	Intithar Jassim Al-Akkam انتظار جاسم	Lec.	PhD
7.	Hanan Jalal Kassab حنان جلال كساب	Lec.	PhD
8.	Fatima Jalal Jawad فاطمة جلال جواد	Lec.	PhD

	Faculty Member	Rank	Degree
9.	Zainab Thabit زينب ثابت	Lec.	M.Sc.
10.	Hala Talal هالة طلال	Lec.	M.Sc.
11.	Lubna Abdul-Kareem لبنى عبد الكريم	Lec.	M.Sc.
12.	Dina Wadie Ameen دينا وديع امين	Lec.	M.Sc.
13.	Abeer Hassan عبير حسن	Lec.	M.Sc.
14.	Saba H Jaber صبا عبد الهادي	Asst. Lec.	M.Sc.
15.	Lena Murad Thomas لينا مراد توماس	Lec.	M.Sc.
16.	Firas Falih Hamudi فiras فالح حمودي	Asst. Lec.	M.Sc.
17.	Zahraa Mohsen Hamoodi زهراء محسن حمودي	Asst. Lec.	M.Sc.
18.	Khalid Kadhem خالد كاظم	Asst. Lec.	M.Sc.
19.	Nawar Micheal Toma نوار ميخائيل توما	Asst. Lec.	M.Sc.

	Faculty Member	Rank	Degree
20.	Zainab Eassa Jassim زينب عيسى جاسم	Asst. Lec.	M.Sc.
21.	Omar Saeb عمر صائب	Asst. Lec.	M.Sc.
22.	Roaa Abdul-Hameed رؤى عبد الحميد	Asst. Lec.	M.Sc.
23.	Hayder Yehia حيدر يحيى	Asst. Lec.	M.Sc.
24.	Salam Shanta سلام شنتة	Asst. Lec.	M.Sc.
25.	Zainab Ahmed زينب احمد	Asst. Lec.	M.Sc.

Appendix B: Number of Enrolled Students in the Graduate Programs in the Past Academic Years

For department of pharmaceutics

Year	PhD	M.SC	Diploma
2009-2010	4	9	2
2010-2011	1	5	2
2011-2012	2	10	4
2012-2013	1	13	7
2013-2014	-----	13	5

Year	PhD	M.SC	Diploma
2014-2015	2	9	1
2015-2016	3	5	5
2016-2017	5	11	8