Kuwait University

Faculty of Pharmacy

Student Handbook

2021-2022

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Faculty of Pharmacy

Abdulmohsen Al-Abdulrazzak
Health Sciences Center
Kuwait University

Student Handbook

Academic Year 2021-2022

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Disclaimer

Every effort has been made to ensure that this handbook contains correct information and is free from errors. However, The Faculty of Pharmacy will not accept responsibility for any errors or omissions contained therein.

Students are strongly advised to consult with the appropriate University Authorities, the Dean of the Faculty of Pharmacy, the Vice-Dean for Academic and Student Affairs, the Vice-Dean for Research and Postgraduate Studies, and the Student Affair office at the Faculty of Pharmacy, for clarification of any issues or regulations stated in this Handbook.

The student handbook is produced by the office of the Vice-Dean for Academic and Student Affairs, Faculty of Pharmacy, Health Sciences Center, Kuwait University.

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- Sixteenth edition: 2017-2018
- Seventeenth edition: 2018-2019
- Eighteenth edition: 2019-2020
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Dean's Message

Dear students,

The role of pharmacists is expanding worldwide to improve the care of patients by optimizing their medication therapy. "Patient-centered" care is the new driver for pharmacy education and practice. Indeed, a lot of errors, interactions, side effects and other drug-related problems are preventable by well-trained pharmacists working actively with other healthcare professionals to improve patient health. This is the reason why we introduced our new pharmacy curriculum last year; the entry-to-practice Doctor of Pharmacy (PharmD) program. This competency-based and innovative program aims at preparing students to offer an expanded practice, offering a greater number of professional activities to support the healthcare system.

Our vision of bringing better healthcare in Kuwait needs to continue with you, our students. It is through your dedication and work that these new goals will be achieved. It is with your desire to better care for patients that the health of your community will improve. Our development of state-of-the-art pharmacy education with your commitment towards being the best professional possible will be the key ingredients to the recognition of pharmacists as indispensable health care professionals. This transition has occurred in several countries, where pharmacists are now considered amongst the most trustworthy professionals. It is now time for Kuwait to join this movement, and this will be our contribution to the New Kuwait.

You will have new colleagues here at the Faculty and if everyone works together you will achieve greater results. The literature on academic success clearly identifies peer collaboration as a key component. By working together, teaching each other, helping each other, you will not only form a unified cohort and a better group, but you will improve your chance of success. Learning is not a competition, but a long journey that is more pleasant when done in a group. As the pharmacy community is small and tightly knit, getting engaged with your peers will also serve you in the future. Of course, you will be able to count on the dynamism and commitment of the instructors, professors and employees working here. I am convinced that by working together we will be key accomplices of your efforts to build a bright future.

I am looking forward to meeting you all and to lead the Faculty during your education. I will surely call upon you during the next few years to help us shape the Faculty of the future.

Pierre Moreau, B.Pharm., Ph.D.
Dean, Faculty of Pharmacy

The Pharmacy Profession

The pharmacy profession provides opportunities for pharmacists in a wide range of settings including hospital pharmacy, community pharmacy (chain or independently owned), home health care, long-term care, nuclear pharmacy, pharmaceutical industry (including areas of research, drug development, clinical trials, quality control, production, marketing and regulatory affairs), government (including public health services, drug control and regulatory authorities, Ministry of Defense, and Ministry of Interior,) and specialty clinical practice areas (e.g., cardiology, cancer chemotherapy, nutritional support, drug information, pharmacokinetics, geriatrics, pediatrics and others).

In the past three decades, pharmacy practice around the world has experienced a gradual shift away from the technical paradigm, which emphasized drug products and their preparation, toward a more disease- and patient-oriented approach to pharmaceutical decision-making. Pharmaceutical decision-making has been strengthened by the pharmacist's access to clinical data and the underlying inter-professional support of changing practice patterns and functions of pharmacists. Pharmacists work with the other healthcare professionals and the patient to help assure appropriate use of an ever-increasing spectrum of effective medications. A particular emphasis is educating and motivating patients with respect to the management of their drug therapy as related to their particular medical condition. Overall, the pharmacist is expected to provide pharmaceutical care and optimize patient drug therapy.

The pharmacy curriculum leading to the Doctor of Pharmacy (PharmD) degree offered by the Faculty of Pharmacy at Kuwait University, provides the educational background to allow graduates to enter any of the practice areas of pharmacy mentioned above. The curriculum provides advanced training in the area of pharmaceutical care to graduate pharmacists who are capable of practicing in the interdisciplinary health care team and will be prepared to join post-graduate residency programs in general or specialty practice areas. It also prepares students to enter advanced study leading to the M.Sc. or Ph.D. degree in one of the pharmaceutical sciences (e.g., pharmacy practice, pharmaceutical chemistry, pharmacology, pharmaceutics etc.).

Pharmacists work directly with other health professionals, and patients to ensure that the medications prescribed for patients contribute to the best possible health outcomes. Clinical pharmacists practice in health care settings where they have frequent and regular interactions with physicians and other health professionals, contributing to better coordination of care. The clinical pharmacist is educated and trained in direct patient care environments, including medical centers, clinics, and a variety of other health care settings. Clinical pharmacists are frequently granted patient care privileges by collaborating physicians and/or health systems that allow them to perform a full range of medication decision-making functions as part of the patient's health care team. These privileges are granted on the basis of the clinical pharmacist's demonstrated knowledge of medication therapy and record of clinical experience. This specialized knowledge and clinical experience is usually gained through residency training and specialist board certification.

Requirements for Entry into the Pharmacy Profession

Education: To become a licensed pharmacist, it is necessary to meet certain requirements of education and experience. Graduation from an approved school of pharmacy is required.

Practice Experience: Practical experience in different pharmacy settings is required. The Entry-to-practice PharmD curriculum at Kuwait University includes experiential training in community pharmacy, hospital pharmacy, and other clinical settings.

Licensure: Graduates of the pharmacy program in Kuwait University or graduates from approved schools of pharmacy can apply to the Ministry of Health to obtain a license that allows them to practice as pharmacists.

Regulations of the Pharmacy Profession in Kuwait

In Kuwait, Ministry of Health, through appropriate legislations, controls and regulates the licensing of pharmacists, the way in which pharmacy is practiced and the licensing and approval for sales of medicines. Kuwait Pharmaceutical Association (KuPHA) is the state professional association for practicing pharmacists. KuPHA adopted a "Code of Conduct ", for pharmacists to guide them in the practice of their profession.

Kuwait University

Kuwait University accepted its first students in October 1966, five years after the establishment of the sovereign State of Kuwait. At its inception, the University consisted of only two colleges – College of Science, Arts and Education and the Women's College. It opened with 418 students and a teaching staff of 31. Today the total number of students is over 33,000. There are more than 1,500 academic staff teaching in 16 faculties.

Kuwait University Administration

- **Chancellor, his Excellency the Minister of Education & Higher Education:**
  Dr. Mohammed Al-Fares

- **Acting Kuwait University President:**
  Prof. Bader Al-Bedaiwi

- **Acting Vice President for Health Sciences Center:**
  Prof. Adel Al-Hunayan

- **Acting Vice President for Academic Affairs:**
  Dr. Meshari Al Aifan

- **Vice President for Research:**
  Prof. Rashid Al-Enezi

- **Acting Vice President for Academic Support Services:**
  Dr. Abdulla Al-Mutawa

- **Acting Vice President for Planning:**
  Prof. Saja Al-Matrook

- **Secretary General:**
  Prof. Murdhi Al-Enezi

Abdulmohsen Al-Abdulrazzak Health Sciences Center

Kuwait University established the Health Sciences Center on Jabriya Campus in 1982. On December 2006 Kuwait University Council agreed to name that center as Abdulmohsen Al-Abdulrazzak Health Sciences Center (HSC) in appreciation of the contribution of Professor Abdulmohsen Y. Al-Abdulrazzak to the development and maintenance of health sciences in Kuwait both academically and professionally.

Health Sciences Center consists of five faculties

- Faculty of Medicine (established in 1973)
- Faculty of Allied Health Sciences (established in 1982)
- Faculty of Pharmacy (established in 1996)
- Faculty of Dentistry (established in 1996)
- Faculty of Public Health (established in 2013)

The HSC includes other facilities such as the Library, Computer Center, the Medical Illustration & Photography Unit, the English Language Unit and the Animal Resources Center.

Officers of the HSC

The Vice-President of Kuwait University for HSC is responsible for the center executive administration, together with the Deans of the five faculties:

- **Vice-President:** Prof. Adel Al-Hunayan
- **Dean, Faculty of Medicine:** Prof. Noura Al-Suwayeh
- **Dean, Faculty of Dentistry:** Prof. Adel A. Al-Asfour
- **Dean, Faculty of Pharmacy:** Prof. Pierre Moreau
- **Dean, Faculty of Allied Health Sciences:** Prof. Suad M. Al-Fadhli
- **Dean, Faculty of Public Health:** Prof. Joseph Longnecker

Governance of HSC

HSC Deans' Committee Membership:

- Vice-President HSC (Chair)
- Assistant Vice-President HSC
- Dean, Faculty of Medicine
- Dean, Faculty of Dentistry
- Dean, Faculty of Pharmacy
- Dean, Faculty of Allied Health Sciences
- Dean, Faculty of Public Health

Terms of Reference

The Committee shall:

- Approve and make recommendations for the integration of the five faculties under the umbrella of the HSC
- Approve and make recommendations for the expansion and allocation of Faculty of Medicine's pre-clinical Departments to serve the needs of the other HSC faculties
- Approve and recommend studies, policies and programs for the planning and implementation of new developments within the center and report these to Kuwait University Deans' Council and President
- Recommend to the University Deans' Council the size of the annual student intake of the constituent faculties
- Deal with any matters referred to this Committee by the HSC Vice-President and/or the Deans of the HSC individual faculties

Meeting

The Committee shall meet at the call of the Chair

Faculty of Pharmacy

Historical Background

Proposals to develop the Faculty of Pharmacy were circulated at Kuwait University as early as 1972. However, it was not until February 3, 1996, that the Amiri Decree established the Faculty officially, and a Bachelors in pharmacy program was offered.

Recruitment of staff and the development of the curriculum started thereafter. Currently the Faculty has 41 full-time academic staff members in four academic departments. In the academic year 2020/2021, the Faculty accepted its first batch of students for the entry-to-practice PharmD program. Currently, there are approximately 200 students enrolled in the BPharm program, 130 in the entry-to practice PharmD program and 30 in the Add-On PharmD Program. The following table shows the numbers of students enrolled in the Faculty and graduated from the year of its establishment till now.

Vision

Be recognized as an outstanding innovative leader in pharmacy education and research, contributing responsibly to the continuous improvement of pharmaceutical services and patient-centered care within our community.

Mission

The Mission of the Faculty of Pharmacy at Kuwait University is to:

- Educate our students and pharmacists to the highest standards of pharmaceutical sciences and pharmacy practice to meet the evolving needs of the population
- Engage in relevant, interdisciplinary and high-quality research to contribute to the development and better understanding of medicines and their therapeutic application
- Share the expertise and experience of its members with the community to promote health and the responsible and safe use of medicines
- Develop its intellectual capital to be a reputable and efficient component of Kuwait University

Values

- **Individual COMMITMENT:** The journey towards our vision depends upon each and every individual contributing to our global efforts by focusing on their specific tasks and being open to change to improve

their effectiveness in delivering the expected outcomes.

- **Intrinsic INTEGRITY:** In order for our Faculty to succeed in its evolution, we must maintain the highest level of professional integrity in all aspects of our mission. This will foster mutual trust between ourselves and with both the higher university administration and our key external partners.

- **Intentional CREATIVITY:** Our vision requires that we continually strive for focused and innovative outcomes that represent significant evolution from best practices.

- **Internal SOLIDARITY:** To face current and future challenges during its evolution, our Faculty needs to be a strong and unified organization, with complete cooperation between academic and administrative departments communicating and working together to fulfill our mission. Our collective goals (of vision and mission) should prevail above our individual interests

- **Social ACCOUNTABILITY:** As a public organization, this Faculty is responsible for delivering the highest level of education, and for the creation of new knowledge to contribute to the advancement of our society. We are also ultimately responsible to actively contribute, by engaging with all relevant stakeholders, to the quality of healthcare offered to our population.

Academic Year	Number of Admitted Students	Number of Graduated Pharmacists
1997/1998	33	-
1998/1999	47	-
1999/2000	61	-
2000/2001	70	-
2001/2002	54	-
2002/2003	55	30
2003/2004	32	36
2004/2005	32	47
2005/2006	53	59
2006/2007	54	45
2007/2008	43	41

2008/2009	31	37
2009/2010	42	42
2010/2011	52	43
2011/2012	68	29
2012/2013	51	28
2013/2014	39	52
2014/2015	54	57
2015/2016	57	42
2016/2017	40	41
2017/2018	60	33 + 10 PharmD
2018/2019	60	40 + 11 PharmD
2019/2020	63	39 + 6 PharmD
2020/2021	63	39 + 13 PharmD

Faculty of Pharmacy Administration

- **Dean:**
  Prof. Pierre Moreau
- **Vice-Dean for Academic & Student Affairs:**
  Dr. Dalal Al-Taweel
- **Vice-Dean for Postgraduate Studies & Research:**
  Prof. Willias Masocha
- **Administrative Manager:**
  Ms. Nouriah Al-Adwani

Academic Departments

1. **Department of Pharmacology & Therapeutics**
   Chairman: Dr. Maitham Khajah
2. **Department of Pharmaceutical Chemistry**
   Chairman: Dr. Khaled Orabi
3. **Department of Pharmaceutics**
   Chairman: Prof. Aly Nada
4. **Department of Pharmacy Practice**
   Chairman: Dr. Fatema Al-Saleh

ACADEMIC DEPARTMENTS

1. Department of Pharmacology and Therapeutics

The department strives to be a center of excellence in:

Teaching:

- We provide high quality education in pharmacology and therapeutics to pharmacy students through the use of the best designed courses, state-of-the-art learning methodologies and educators who are passionate about their teaching and students

Research and Consultancy:

- We conduct high quality, relevant and exciting research in common diseases/ topical areas through the use of state of the art technology and novel ideas
- We aim to be a leading a center for research consultancy in Kuwait and the Gulf region
- We are a main center for Therapeutic Drug Monitoring (TDM) in Kuwait and aim to be one of the leading centers in Gulf region

Community and University Services:

- We constantly strive to educate our community and pharmacists about diseases, new drugs, and keep them abreast with the evolving medical challenges through the use of social and regular media, seminars, lectures and workshops for and continuing education programs
- We are also an important and integral part of the FoP consultation office where we provide pharmacotherapy consultation to healthcare professionals

Academic Staff

Chairman:

- Dr. Maitham Khajah

Professors:

- Prof. Pierre Moreau [Dean]
- Prof. Ahmed El-Hashim
- Prof. Murat Oz
- Prof. Willias Masocha [Vice-Dean for Postgraduate Studies & Research]

Associate Professors:

- Dr. Kamal Matar

- Dr. Maitham Khajah
- Dr. Mohamad Qaddoumi

Assistant Professors:
- Dr. Altaf Al-Romaiyan
- Dr. Bedour Qabazard
- Dr. Jacinthe Lemay
- Dr. Omama Al-Farisi

Clinical Instructors:
- Ph. Al-Shaimaa Al-Kandery

Teaching Assistants:
- Ph. Maram Jamal Katoue
- Ph. Aisha AlBaloushi
- Ph. Ahmed Barakat

Scholarship Students:
- Lulwah Al-Shammari
- Abdullah Al-Sultan
- Sarah Khaled Alsaad

Non-Academic Staff
Chief Technician:
- Dr. Randa AbdulSalam

Technicians:
- Ph. Seena Elizabeth Mathew
- Maha Al-Kharji
- Rania Khiwa

Senior Research Assistants:
- Sanaa Hawai
- Sara Ibrahim

Secretary:
- Ms. Shila Anas

2. Department of Pharmaceutical Chemistry

The Department focuses on achieving excellence in the following areas:

Teaching:
The Department aims to educate pharmacy students in pharmaceutical chemistry and related sciences and to train them to be proficient in applying this knowledge in:

- drug analysis and drug quality control
- understanding the chemistry of drugs and drug-drug interactions
- understanding the molecular basis of cellular function and therapy
- pursuing postgraduate studies in various areas of pharmaceutical chemistry

Research:
The Department aims to conduct research in pharmaceutical and medical sciences and biopharmaceutical analysis:

- discovery and development of new medicinal compounds from synthetic and natural sources
- development of analytical techniques for the analysis of drugs and molecules in biological systems
- identification and development of novel biological markers for assessment of neoplasia
- mechanisms of endocrine resistance in breast cancer

Community Services:
The Department aims to offer facilities useful in instrumental analysis to:

- provide service of drug analysis for screening of drugs of abuse for Crime-laboratories, Ministry of Interior
- provide services of drug analysis for quality control laboratories in Drug Registration Department, Ministry of Health, Kuwaiti and Saudi Pharmaceutical Industries Company
- perform service of screening for metabolic diseases in neonates and infants
- provide analytical services for researchers
- provide training and continuing education programs to pharmacists on various pharmaceutical topics

Academic Staff

Chairman:

- Dr. Khaled Orabi

Professors:

- Prof. Ladislav Novotny
- Prof. Oludotun Phillips

Associate Professors:

- Dr. Khaled Orabi
- Dr. Naser Al-Tannak
- Dr. Mohammed Khder

Assistant Professors:

- Dr. Nada Al-Hassawi
- Dr. Fatma Al-Awadhi
- Dr. Samaa Al-Rushaid
- Dr. Bashayer Al-Thufairi

Clinical Lecturers:

- Dr. Hanan Abdul Latif
- Ph. Leyla Sharaf

Teaching Assistants:

- Zainab Taqi
- Ph. Dalal Al-Adwani

Scientific Assistants:

- Sana'a Amine

Scholarship Students:

- Fatma Taha
- Layla Al-Noumas
- Fatma Kareem

Graduate Students:

Master's Level:

- Abrar Al-Mutairi
- Mariam Al-Shamali

PhD Level:

- Nasser Barakat
- Rania El-Anwar

Non-Academic Staff

Chief Technician:

- Sulaiman Al-Sulaiman

Technicians:

- Emad El-Sayed
- Mary Varghese
- Akram Aghabuios
- Aldana Albuhairi [scientific leave]
- Mahmood Jamal

Secretary:

- Asmaa Badawy

3. Department of Pharmaceutics

The department endeavors to be consistent with the Faculty's goals to achieve excellence in teaching, research and services to the community.

Teaching:

- promoting teaching methodologies to cope with international standards so as to produce competent pharmacists for Kuwait and the Gulf region
- following a path of life-long learning
- participating in the establishment of robust graduate and post graduate programs in the field of pharmaceutics

Research:

- developing technologies to produce cost-effective healthcare products
- transforming the department into a "Center for Excellence in Pharmaceutical Technology"
- making Kuwait a "self-reliant" state in the production of drugs and drug products
- promoting interdisciplinary research with national and international organizations

Community Healthcare and University Services:

- providing consultancy to community healthcare
- participating in training and continuing pharmacy education programs
- motivating young and genius Kuwaiti pharmacists to be part of the mission of the Faculty in the fields of pharmaceutics

Academic Staff

Chairman:

- Prof. Aly Nada

Professors:

- Prof. Aly Nada

Associate Professors:

- Dr. Mohsen Hedaya
- Dr. Abdel-Azim Zaghloul

Assistant Professors:

- Dr. Monerah Al-Soraj
- Dr. Yacoub Al-Basarah
- Dr. Wabel Al-Busairi
- Dr. Noha Nafee
- Dr. Abdelkader Metwally
- Dr. Maitham Bahman

Teaching Assistants:

- Dr. Farzana Bandarkar
- Ph. Ghadeer Al-Mousawi
- Ph. Reham Al-Kazemi

Scientific Assistants:

- Ph. Elizabeth Abraham

Scholarship Students:

- Ameena AlMurjan
- Abdulaziz Alobaid
- Hawra'a Ali
- Shouq Al-Shatti
- Anas Al-Mudhaka

Non-Academic Staff
Chief Technician:

- Sulaiman Al-Sulaiman

Technicians:

- Ph. Doha Nabil
- Ph. Saji Abraham
- Farah Jumaa
- Yehya Abdulqader

Secretary:

- Marwa Gouda

4. Department of Pharmacy Practice

The department of Pharmacy Practice provides high quality education, research and community service aiming at a safe, effective and economical use of medicines to improve patients' outcomes.

Teaching:

- The Department of Pharmacy Practice engages in teaching disciplines of clinical, social and administrative pharmacy. Our teaching philosophy is based on the concept of pharmaceutical care i.e. "the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life". This involves the student being able to identify, resolve and prevent medicine related problems and achieving other competencies required in professional practice.

Research:

- The research carried out by departmental staff are in the areas of community pharmacy, hospital pharmacy, pharmaceutical care, pharmacoepidemiology, public health, social pharmacy, pharmacoeconomics, medicine information, pharmacy education, pharmacokinetics and therapeutic drug monitoring.

Community Services:

- Our community services aim at contributing in evaluating and improving pharmaceutical services and systems to enhance the quality of health care outcomes. Structured continued professional development to complement the educational needs of pharmacists in Kuwait will be provided.

Academic Staff

Acting Chairman:

- Dr. Fatemah Al-Saleh

Professors:

- Prof. Abdelmoneim Awad

Associate Professors:

- Dr. Fatemah Al-Saleh
- Dr. Dalal Al-Taweel [Vice-Dean for Academic & Student Affairs]

- Dr. Abdullah Al-Bassam

Assistant Professors:
- Dr. Fatma Jeragh
- Dr. Salah Waheedi
- Dr. Maryam Al-Owayesh
- Dr. Sarah Al-Ghanem
- Dr. Mona Murad
- Dr. Mai Al-Hazami
- Dr. Sara Al-Mane
- Dr. Danah Al-Sanea

Clinical Lecturers:
- Dr. Tania Bayoud

Clinical Instructors:
- Dr. Asmaa Al-Haqan
- Dr. Zahra Al-Sairafi
- Ph. Reny Mary Mathew
- Ph. Heba Abul
- Ph. Noor Marafie
- Ph. Sara Alajmi
- Ph. Sameer Taher

Teaching Assistants:
- Ph. Samuel Koshy
- Ph. Youmna Alaa-Eddine

Scholarship Students:
- Afrah Al-Kazimi
- Ahmed Taqi
- Fatma Al-Rashed
- Emad Al-Sarraf
- Ethar Makhseed
- Maha Al-Harbi
- Asmaa Al-Buloushi
- Mariam Al-Obaidli
- Azizah Al-Awadhi
- Talal Al-Muzaini

Non-Academic Staff
Chief Technician:

- Dr. Randa AbdulSalam

Technicians:

- Ph. Reny Varghese
- AbdulRazzak Al-Shaar

Secretary [Senior Administrative Specialist]:

- Zahra Al-Saleh

Administrative Coordinator:

- Esraa Mohammed

Supporting Faculty of Medicine Departments

- Department of Anatomy
- Department of Biochemistry
- Department of Community Medicine
- Department of Medicine
- Department of Microbiology
- Department of Pathology
- Department of Pharmacology & Toxicology
- Department of Physiology
- Department of Surgery
- English Language Unit

Supporting Faculty of Allied Health Sciences Departments

- Department of Medical Lab Sciences
- Department of Physical Therapy
- Department of Radiologic Sciences

ACADEMIC PROGRAMS

I- The Entry-to-Practice PharmD Program (Ep-PharmD)

1. Admission

Students are admitted into the Entry-to Practice PharmD (Ep-PharmD) program once a year during the Fall Semester.

Requirements

a. High school students who hold secondary school certificate (Science major), or its equivalent, with a minimum percentage of 80% in the high school marks.
b. Priority of admission will be given to applicants who have the highest equivalent Grade Point Average of the secondary school percentage and the results of aptitude tests as follows:
   - High School grades 70%
   - Result of English language aptitude test 15%
   - Result of Mathematics aptitude test 15%

Number of Students

The maximum number of students, including non-Kuwaitis, admitted to the Faculty of Pharmacy will be 63 (60 Kuwaitis and 3 non-Kuwaitis).
(This number includes both government and all private school systems).

Degree

The Faculty of Pharmacy offers an Entry-to-practice Doctor of Pharmacy (Ep-PharmD) program which will lead to a Doctor of Pharmacy degree (PharmD) - دكتور في الصيدلة.

Structure of the Program

The Ep-PharmD program is a professional program that consists of one pre-professional year followed by six professional years. The first pre-professional year is devoted to the study of English language, basic sciences, and elective courses. Following that, students study pharmaceutical and basic clinical sciences for three years and also proceed on clinical placements in polyclinics in the fourth year of the program. Years 5-7 include more advanced clinical sciences, with clinical placements in governmental hospital settings during 5th and 7th year. Students are required to complete 222 credit hours (CH) for graduation. The curriculum for the 7-year PharmD Degree program is shown in the major sheet below.

Degree Requirements

To graduate, a student must complete all academic requirements of all courses listed in the Major Sheet

- The total number of credit hours required for graduation is 222.
- General GPA of 2.00 points on 4.00 scale.
- Major GPA of 2.00 points on 4.00 scale.

Student's Evaluation

The student must successfully pass the compulsory and elective courses listed in the curriculum.

The first year of the Ep-PharmD Program

- Students are directly admitted to the first year at the Faculty of Pharmacy (FoP) if they fulfill the admission requirements.
- All students admitted to the Faculty of Pharmacy must register in the prescribed courses totaling 30 credit hours during the first and second semesters of the first year.
- Students enrolled in the first year of the FoP cover the same subjects covered by the students in the Faculty of Medicine and Faculty of Dentistry during their first year.
- For promotion to the second year of the pharmacy program, the students must pass all the subjects of the first year, during the first and second semesters after joining the University and must achieve the required minimum GPA of 2.00 points out of 4.00 points.
- Students who fail to obtain GPA of 2.0 will not be promoted to 2nd year.

The first year curriculum was developed to prepare students academically to progress into any of the HSC programs.

Students in the first year of the FoP take classes offered by departments outside the FoP, however, they administratively belong to the FoP.

2. Transfer to and from the Faculty of Pharmacy

Transfer to the Faculty of Pharmacy:

Transfer to the FoP is limited to students who are already enrolled in Kuwait University if they fulfill the transfer requirements. The FoP accept transfer students fulfilling the requirements if there are empty seats. Transfer between faculties within Kuwait University is allowed only once.

a. **Transfer of students of Faculties of Medicine and Dentistry immediately after their first year:**

- Students from Faculties of Medicine and Dentistry who have passed the first year in the Faculty of Medicine or the Faculty of Dentistry are eligible to apply for transfer to the Faculty of Pharmacy, at the end of the first year, provided that the number of pharmacy students promoted to 2nd year is less than 63. If 63 pharmacy students are promoted to 2nd year, then there will not be any transfer allowed for these students.
- The student must have passed all the prescribed first year courses offered by the Faculties of Medicine and Dentistry.
- The student must have a current minimum GPA of 2.00/4.00.
- If seats are available, the Dean of Admission and Registration will make the announcements for transfer, specifying the number of vacancies available, immediately after promotion of first year pharmacy students to the second year.
- Required documents should be submitted to the Dean of Admission and Registration during the period specified by them.
- Students shall be accepted for transfer based on their current GPA. Priority will be given to those who have the highest GPA.
- Students will be accepted to the third semester (second year) of the pharmacy program.

b. **Transfer of students from Faculties of Medicine and Dentistry in the second year or higher**:
   - Students of Faculties of Medicine and Dentistry who are in the second year or higher, whether they passed or failed their courses (not eligible to continue their programs), are eligible to apply for transfer to Faculty of Pharmacy, provided the number of pharmacy students promoted to 2nd year is less than 63. If 63 pharmacy students are promoted to 2nd year, then there will not be any transfer allowed for these students.
   - If seats are available, the Dean of Admission and Registration will make the announcements for transfer, specifying the number of vacancies available, immediately after promotion of 1st year pharmacy students to the 2nd year.
   - Required documents should be submitted to the Dean of Admission and Registration no later than the second week of the Fall semester.
   - Students shall be accepted for transfer based on their current GPA. priority will be given to those who have the highest GPA.
   - Students will be accepted to the third semester (2nd year) of the pharmacy program.

c. **Transfer regulation applicable to students in other Kuwait University Faculties other than Medicine and Dentistry:**

- Applications for transfer shall be accepted from students who are currently registered in Kuwait University.
- The minimum current Grade Point Average (GPA) is 3.00 out of 4.00.
- Students must have passed 38 credit hours in the following science courses with average GPA of 3.0:
    - Chemistry courses (110 & 111) + 114
    - Physics courses (121 & 125) + (122 & 127)
    - Biology courses (101 or 103)
    - Mathematics or Statistics (except Finite Mathematics 115)

  In addition to:
    - 10 credit hours in English courses or (6 credit hours in English courses + minimum of 4 credit hours of science courses taught in English such as Biology or Chemistry (except Mathematics, Statistics and Computer)
    - 6 credit hours of university elective courses
- Required documents should be submitted to the Dean of Admission and Registration during the period specified by them.
- Students must have obtained a grade B or above in Chemistry, Physics and Biology courses mentioned above.
- Student must pass the English proficiency examination for transfer students with score equal or more than 60%. This exam is administered by the Health Science Center English Department two weeks before teaching starts.
- Students shall be accepted in the third semester (second year) of the pharmacy program.

<u>Notes on priority</u>

- Transfer Applications will be accepted by the Dean of Admissions and Registration only if seats are available at the end of the first year, and until the 63 seats are filled.
- Kuwaiti students will receive the highest priority.
- Students who finished their first year in Medicine or Dentistry and wish to transfer to pharmacy during the summer (section a), will have the priority over other transfer students.
- From the pool of students from section b and section c, transfer priority will be based on the GPA (first year GPA for section b and global GPA for section c).

Transfer from the Faculty of Pharmacy:

- Pharmacy students who have GPA 3.00 or above can transfer to the FoM or FoD if there are seats available in these Faculties.
- Students, who do not successfully finish all the courses of the first year in the FoP, can transfer to other Kuwait University Faculties outside the HSC.

3. Registration Guidelines

General University Regulations:

Dates of registration shall be published by the university, posted on KU website, and students are notified by text message before each semester, and the registration procedures must be strictly adhered to in accordance with the following conditions:

- Registration will be on a year basis and done online according to established University procedures
- Any student who fails to register in any course of any semester will bear the consequence of lack of registration
- Any applicant wishing to transfer to the pharmacy program must fulfill all the transfer requirements

Semester

A semester is the period of study that extends between the beginning and end of the study including the final examination period. A semester extends for 18-20 weeks. Two semesters make one academic year.

Summer Semester

Is an elective semester and extends for eight (8) weeks including the final examinations period. Each summer course lecture lasts for 55 minutes. Summer studies are supervised by the Dean of Admission and Registration (or his replacement) at the University level, the Faculty Dean (or his replacement) at the Faculty level and the Department Chair (or his replacement) at the Department level..

Academic Advisor

Each registered student will be assigned to a faculty member in the Faculty of Pharmacy to serve the academic advisor. The role of the academic advisor includes the following:

- Guiding the students in selecting the courses to be registered on the basis of the curriculum major sheet and the required pre-requisites
- Solving problems (if any) that might affect the academic performance of the students

- Ensuring that the students are fully aware about all of the necessary rules and regulations stated in this handbook

Study Load
It is the load which a student must take each semester and which he/she must carry over several semesters to earn a degree. The credit hour (CH) is basically a criterion for specifying the study load. The academic department that offers a particular course specifies the number of CH that comprises the course. The CH rating of a course is normally based on one hour of theoretical study, e.g. a lecture, or at least two hours of applied study, e.g. a laboratory session per week, per semester being equal to one CH.

The normal study load in a regular semester is 15-19 CHs. With the approval of their advisors, Dean, or Vice-Deans, students may register for more CHs to meet the graduation requirements or for other situations, if they fulfill the requirements.

Faculty of Pharmacy registration rules:
The current registration rules do not allow the students to register in any course in a given year, unless the student successfully completed all the courses in the previous year.

The Faculty has the right to de-register any student with approval of the Dean and Faculty curriculum committee, should it deem necessary.

It is the responsibility of the students, not the Faculty administration, to register online within the period allowed and add or withdraw from courses during the period published by the office of the Dean of Admission and Registration and placed on the appropriate University website. After the end of the registration period, the faculty administration will not be able to assist the students to register and students will not be allowed to attend any unregistered course. It is the student responsibility to check that their registration is valid and to check for any human error in degrees reported and displaced online.

The Faculty does not support the withdrawal or de-registration of students from any existing courses. There must be a valid reason for the Vice-Deans to accept such request by any student, and this is done through the Dean of the Faculty.

4. Course Assessments

Each course shall include a final assessment that makes up for 40-60% of the total marks of the course. The remaining % could be attained from quizzes, lab reports, presentations and projects etc.

Exam reviews and tutorials are left to be conducted at the discretion of course coordinators and examiners of any course ensuring these are NOT photocopied, handed or recorded by the students. HSC and Kuwait University Regulations consider the audio or video recording of lectures, tutorials or exam reviews unlawful. The Faculty of Pharmacy is not responsible for any misinformation, omissions or misrepresentation of any lecture material transcribed by the students from these recordings.

Scores for quizzes and other assessments may be posted without Faculty Council approval. The overall student's grades at the end of the year should be published only after being ratified by the Faculty's Board of Examiners and approval by the Faculty Council.

Examination questions can be MCQ, short answer questions, and/or essay questions. The respective Department conducting the exams decides the type and combination of exam questions. Examination questions are vetted beforehand by a committee consisting of faculty members from the department to ensure clarity, correctness, relevance, and appropriateness of the questions for the examination time.

Students with "R" or "F" marks in normal sitting exams may be allowed to discuss their answer score sheets with the course coordinator. Students attaining other marks may be allowed to do the same at the discretion of the course coordinator.

5. Progression Requirements

This is a full-time undergraduate program, leading to a doctor of pharmacy degree. Students register to all courses at the beginning of the academic year and grades will be posted at the end. However, some courses may be offered as modules and not run through the whole year. For specified courses, mainly those offered by other faculties, grades may be reported before the end of the academic year.

The Entry-to practice PharmD has a year-based progression, meaning that in order to enroll in the following year, students will have to succeed all the courses in the previous year.

- Students who do not succeed in a course (grade below 60%) can retake the examination for this course (resit).
- Students will only be allowed to take the resit exam if they have a grade less than 60% in no more than 3 courses in a year.
- If they did not pass more than 3 courses, these courses will be graded as failed (F) and students will have to repeat all the courses of the year. This decision must be ratified and approved by the Board of Examiners and the Faculty Council.
- Students who do not appear for the final exams (without any acceptable excuse) will be awarded an "F" grade ('0' marks) and they are not eligible to appear for the resit examination. This means that they will repeat the year. If they are already repeaters, they will be dismissed from the Faculty of Pharmacy except the 4th year students.
- Failure in a course means that the student has to repeat all courses of the year.
- Failing a course in the first year leads to dismissal and transfer to another Faculty as the first year cannot be repeated.
- Students who fail a course in a given year can repeat the year once. Any failure during this repeated year will lead to dismissal.
- The fourth year can be repeated twice to improve chances of getting a BSc degree, but students are not allowed to continue in the PharmD program if they succeed on this last attempt. If they fail, students will be dismissed from the program.

Placements (Pharmacy practice experience course)

- Students failing a pharmacy practice experience course (EPPE or APPE), have to redo it after the current year. Failing twice the same placement is a motive for dismissal.
- Failing more than three placements during the whole duration of the program leads to dismissal from the program.
- Students having a critical issue (ex. endangering the patient life) during a placement are dismissed from this rotation (with F grade). A list of critical issues will be provided to students and preceptors.

In addition, students have to:

- Attend (as per the University requirement) both theory and practical components of the program. Students failing to attend the minimum number of lectures/practical sessions or failing to attend the final examination (without a valid excuse) will receive a FA (failure by absence).

- Satisfy the Interprofessional education courses, if these courses are offered in addition to the pharmacy curriculum.
- Satisfy any specific requirements for rotations if needed (ex. first aid, CPR, immunization)

Resit examinations

When all final results are completed, the results shall be sent to the Dean of Admission and Registration. Students can be given a grade of "I" (Incomplete), until a resit of the exam has been conducted. The results of the resit examination shall be forwarded to Dean of Admission and Registration at Kuwait University immediately after posting the results. This ensures that no student can register in subsequent courses, whose pre-requisite courses are not fulfilled. Any student who has conducted a resit exam will get a grade of "C" for each resit, if passed.

Those candidates who have an excused absence according to the criteria outlined in the final examinations regulations can appear in the resit examination (as a make-up exam) and shall get the actual grade.

There is no re-sit for the resit examination, i.e. students who do not pass the resit examination whether as a first trial or second trial will have to repeat the course.

A student who feels that a human error in the reporting of his/her marks had been made by the Faculty, in their forwarding of marks to the Office of Registration and Admission, must bring this to the attention of the Office of the Vice-Dean Academic and Students Affairs in the Faculty or the Chairman of the Department, whose exam results are concerned, no later than two months after the start of the following semester. This should be done in writing and any delay in reporting the error may result in a wrongly-reported grade being sustained by Kuwait University Committee involved in the correction of such grade.

Any other matter or incident arising in any other circumstances, not covered by the above regulations will be judged in the light of the General Guidelines in Kuwait University Students Regulation, as a reference. This requires the approval and action of the Faculty of Pharmacy Curriculum Committee and the approval later by the appropriate Committee in Kuwait University Central administration.

6. Graduation Requirements

Students have to successfully complete the 222 credits for the PharmD curriculum and maintain a general GPA of 2.0 or above to graduate. The maximum number of years to complete the program is 10 years, with two possible extra years (2 failures) during the first 4 years and one extra year (1 failure) during the last 3 years of the program. Calculation of the duration is based on KU policies for withdrawal.

To graduate in their HSC professional programs, students will also have to pass all 3 IPE courses. In the Faculties of Medicine, Dentistry and Pharmacy, where students can graduate from a bachelor degree after 4 years, the 3 IPE courses are not required for this degree. They are required for graduating to the terminal degree (MD, DMD or PharmD).

7. Grade Point Average (GPA)

The grade point average used currently at the HSC, Kuwait University to grade students is based on a 4-point scale. The following table shows the sets of GPA scale used in the Faculty of Pharmacy:

Grade Point Scale	Mark (%)	Grade Description	Grade Category
4.00	=> 90	"Excellent"	A
3.67	85-89	"Excellent"	A-
3.33	80-84	"Very good"	B+
3.00	75-79	"Very good"	B
2.67	70-74	"Good"	B-
2.33	65-69	"Good"	C+
2.00	60-64	"Good"	C
0	<60	Incomplete**	R*
0	Absent	"Fail, Absent"	FA***

*Students who score <60% will get a grade of (R) and will be allowed to take a re-sit examination. If they pass the re-sit examination they will get a grade of C regardless of their scores, and if they did not pass they will get a grade of "F".

** The incomplete grade (R) will have to be changed (to F or C or other) before the end of the first week of the following semester of obtaining this grade.

*** Students who did not attend the final examination without an acceptable excuse will get a grade of "FA", while those who did not attend the final examination due to an acceptable excuse, will get a grade of "R" and will be allowed to take the re-sit examination and will get the grade corresponding to their score in the re-sit examination.

The GPA for students is calculated as follows:

- The number of credit hours (CH) for a course is multiplied by the grade point (GP) equivalent to the grade obtained by the student. This procedure is repeated separately for each course the student has taken (e.g. column B x column C).
- The products of column B (CH) x column C (GP) for each course is

added together to obtain the total grade points the student obtained (column D).

- The total grade points the student obtained in a semester is divided by the number of credit hours completed in the semester to calculate the grade point average (GPA) for that semester.
- The total cumulative grade points the student obtained is calculated from the sum of the product of the CH x GP for all the courses the student obtained.
- The total grade points are divided by the total number of credit hours completed by the student to calculate the cumulative grade point average (GPA) the student obtained throughout the program.

Example of "GPA" calculation, where the GPA is 2.77 is shown below:

A	B	C	D	E	F
Course name	**CH**	**Grade point**	**BxC**	**CH completed**	**GPA (D/E)**
Chemistry	3	B+ (3.33)	9.99	3	
Biophysics	3	C (2.00)	6.00	3	
English	5	B (3.00)	15.00	5	
Computers in Medicine	1	C+ (2.33)	2.33	1	
Elective	3	F = 0	0.00	0	
	15		33.32	12	2.77

8. University Warnings

The student shall be put on the warning list (probation list) if he/she earned the following GPAs at the end of a semester:

- 1.67, who has registered in less than 45 credit hours
- 1.87, who has registered between 45-60 credit hours
- 2.00, who has registered in more than 60 credit hours

A student must increase his/her General GPA to the required GPA in the two semesters following his/her entry on the warning list, otherwise he/she shall receive a second warning and a third warning, respectively.

If the grades obtained at the end of summer semester do not increase the GPA of the student to the required level to avoid an official warning, the number of warnings will not increase.

Major GPA is counted when the registered credits reach 60 credit hours. However, the number of warnings of the major GPA is not added to the General GPA.

Students who receive a third warning are automatically dismissed from the university. However, the student may be permitted to register in an exceptional semester to increase his/her General GPA if he/she attains the following Semester grade average:

- B+ for those who already completed > 100 credit hours
- B for those who already completed 60-100 credit hours
- B- for those who already completed < 60 credit hours

If the student did not increase his/her General GPA to the required average after the exceptional chance for study, he/she will receive a fourth warning and be automatically dismissed from the University. However, the Student Affairs Committee may accept appeals from students to be given a last chance to continue their studies according to the following two conditions:

- The remaining period for graduation is only one semester
- Both the General and the Major GPAs are not less than 1.9

9. Withdrawal

If approved by the academic advisor, a student may withdraw from one or more courses during the first six weeks of each of the Fall and Spring semester. A withdrawal note (or letter "W") will be denoted in the student record after the first week, if the student withdrew from any class and those withdrawn classes will not enter into the student GPA assessment. This withdrawal should not subsequently reduce the registered credit hours below the minimum required one.

In exceptional cases, a student may withdraw from study for a whole year, subject to the approval of Student Affairs Committee. In such cases, a withdrawal note (or letter "W") will be denoted in the student record for all the withdrawn courses of the relevant year. The Student Affairs Committee may not count this withdrawn year within the normal period of graduation.

10. Adding and Dropping Courses

Following the end of the registration period, a one-week period (before the start of the academic year) may be granted for adding and dropping courses. In such cases, a withdrawal note (W) will not show in the student record.

11. Interruption of Study

- Interruption of study means that the student did not register for courses for one semester or more.
- If a freshman or a transferred student interrupted (or withdrew) his/ her study in the first admitted year, his/her enrollment or transfer into the University is deemed cancelled. However, a student may delay his/ her admission into the following year for health or social reasons pending the approval of the Student Affairs Committee.
- Freshmen or transferred students may interrupt their study during the period of compulsory military service if they could not delay it.
- Students who obtain either an "F" (due to failure in exam) or "FA" (due to absence from exam) in every registered course in the first enrolled or transferred year and do not continue their studies in the following year will be dismissed from the University.
- Subject to the approval of the Dean, students may take a voluntary leave of absence from their study for no more than one year during the 7-year program. This leave of absence would be added to their required graduation period. The Dean of the Faculty should inform the Dean of Registration and Admission about his decision.
- Subject to the approval of the Student Affairs Committee of the University, students may take an obligatory leave of absence from their study (due to unforeseen circumstances) for up to 3 years during their enrollment at the University. This obligatory leave of absence from their study will not be added to their required graduation period.

12. Graduation Regulations

The approved program of study will be that prescribed by the Faculty of Pharmacy. To graduate, a student must fulfill all academic requirements of all courses listed in the Major Sheet. The total number of credit hours required for graduation is 222. Kuwait University will not award a PharmD degree to student whose General or Major GPA is below 2.00.

Major Sheets

First Year		
1488-181	English Language I	5
1488-182	English Language II	5
xxxx-xxx	Elective I	3
xxxx-xxx	Elective II	3
1410-101	Introduction to Computers in Medicine	1
1400-141	Biophysics	3
1440-140	Chemistry for Health Sciences	3
1410-144	Biostatistics and Basic Epidemiology	3
1420-143	Biology for Health Sciences	4

Second Year		
1110-101	English communication in Pharmacy Practice I	2
1110-102	English communication in Pharmacy Practice II	2
0410-103	Biomathematics	3
1110-120	Functions of the Human Body	3
1120-104	Organic Chemistry	4
1120-105	Pharmaceutical Chemistry Fundamentals	4
1130-106	Formulation Fundamentals I	3
1130-107	Formulation Fundamentals II	3
1140-108	Immunology and Microbiology Fundamentals	2
1140-109	Medicines development Process	1
1110-110	Pharmacy Calculations	2
1110-231	Pharmacy Practice Fundamentals	3

Third Year		
1120-111	Biochemistry and Biotechnology Fundamentals	4
1130-112	Biopharmaceutics and Pharmacokinetics	4
1140-113	Pharmacology Fundamentals	2
1120-114	Chemistry of Medicinal and Poisonous Plants	3
1140-115	Principles of Toxicology	2
1100-116	Principles of Antimicrobial Therapy	3
1110-232	Introduction to pharmaceutical care	2
1100-233	Principles of Special Population Treatment	1
1110-234	Dispensing in a community setting	3
14xx-085	Roles and responsibilities of healthcare providers	0
1100-361	ITM-Renal Diseases I	2
1100-362	ITM-Hematological Diseases I	2
1100-363	ITM- Cardiovascular Diseases I	2
1100-364	ITM-Respiratory Diseases I	2

*ITM: Integrated Therapeutic Module

Fourth Year		
1120-117	Instrumental Analysis and Quality Control of Pharmaceuticals	3
1110-235	Health Promotion and Education I	2
1110-236	Health Promotion and Education II	1
1130-237	Extemporaneous Preparations in a Community Pharmacy Setting	3
14xx-090	Working as a team in the healthcare system	0
1100-365	ITM-Dermatological and Ear-Nose-Throat Diseases I	2
1100-366	ITM- Nutrition and Eating Disorders	2
1100-367	ITM-Central Nervous System Diseases I	3
1100-368	ITM-Gastro-intestinal Diseases I	2
1100-369	ITM-Endocrine Diseases I	3
	ITM-Endocrine Diseases I	3
1100-370	ITM-Bone and Joint Diseases I	2
1100-371	ITM- Diseases of the Reproductive System I	2
1110-491	Ambulatory Professional Practice Experience I	4

Fifth Year		
1100-118	Research project	3
1110-238	Health Promotion and education III	1
1110-239	Health Promotion and education IV	2
1110-240	Dispensing in a Hospital Setting	3
1130-241	Extemporaneous Preparations in a Hospital Setting	3
1100-372	ITM-Cardiovascular Diseases II	3
1100-373	ITM-Gastro-Intestinal Diseases II	2
1100-374	ITM- Diseases of the Reproductive System II	2
1100-375	ITM-Respiratory Diseases II	2
1100-376	ITM-Bone and Joint Diseases II	2
1100-377	ITM-Dermatological and Ear-Nose-Throat Diseases II	2
1100-378	ITM-Endocrine Diseases II	3
1110-496	Hospital Professional Practice Experience I	4

Sixth Year		
1100-119	Principles of Anticancer Therapy	2
1110-242	Pharmaceutical Service Management I	3
1110-243	Pharmaceutical Service Management II	3
14xx-095	Collaboration for the benefit of the patient	0
1100-379	ITM-Cardiovascular Diseases III	2
1100-380	ITM-Central Nervous System II	3
1100-381	ITM-Renal and Immunological Diseases and Transplantation	3
1100-382	ITM-Supportive Care	2
1110-383	Treatment of Infectious Diseases	3
1110-384	Treatment of Cancer	3
1110-385	Advance Pharmacotherapy	4

Seventh Year		
1110-492	Ambulatory Professional Practice Experience II	6
1110-493	Ambulatory Professional Practice Experience III	7
1110-495	Unrestricted Professional Experience	6
1110-497	Hospital Professional Practice Experience II	6
1110-498	Hospital Professional Practice Experience III	7
1110-499	Hospital Professional Practice Experience IV	7

* 40 hours per week on site (excluding preparation work) for 6 or 7 weeks, depending on the rotation.
All students will do 3 rotations of 6 weeks and 3 rotations of 7 weeks.

Total Credits for Ep-PharmD Program	222

Course Descriptions

This section presents the course number, title, credit hours and description for all courses:

FIRST YEAR – 30 credit hours

1488-181 English Language I (5 credit hours)
This course introduces scientific and medical vocabulary and word roots, and revises basic grammar in a scientific context. On the completion of the course students should be able to understand short lectures, read and take notes from simple text on medical and biological topics, participate in class discussions and write short paragraphs of extended definitions involving scientific notions of shape, structure, measurements and physical properties.

1488-182 English Language II (5 credit hours)
This course continues the study of the scientific and medical English, with emphasis on developing reading and listening skills so that students can summarize and take notes from longer authentic texts. The organization of information in a text is studied and essay writing is introduced. Students are trained in techniques of oral presentation.

Elective Courses (6 credit hours)
Selected 100 level courses from Kuwait University will be offered yearly to pharmacy students. Other course form the HSC could also be selected by the students (ex. First aid from Allied Health).

1410-101 Introduction to Computers in Medicine (1 credit hour)
The primary objective of this introductory course is to familiarize the student with fundamentals of computers and computer tools (e.g., internet, e-mail, word processing etc.) for use in healthcare settings and achieve a basic skill in each of these. A related objective is to introduce the student to the major medical and health data bases for retrieving information on medical and related research. Topics include an introduction to computers, CPU, Storage, multimedia, internet use, word processing, searching medical databases.

1400-141 Biophysics (3 credit hours)
This course introduces important technologies and basic principles relevant to physics for health sciences students. Reading in a text book for this course, the popular scientific literature, and medical texts will treat both scientific basis and societal implications of sound, Doppler, hearing, and ultrasound, optics, fiber optics and vision, modern physics, X-ray, computed tomography (CT), Nuclear Physics, magnetic resonance, laser, nuclear medicine and Radiotherapy.

1440-140 Chemistry for Health Sciences (3 credit hours)
This course aims to provide students with an adequate background in basic chemical principles of health sciences and to provide an understanding of fundamental organic and in organic components of the human body. With this knowledge, students will be able to advance into Biochemistry and Molecular Biology, Clinical Chemistry and Pharmaceutical Chemistry as a health science profession.

1410-144 Biostatistics and Basic Epidemiology (3 credit hours)
The objective of this course is to introduce students to the principles biostatics and their applications in health sciences. Moreover, students will be familiarized with the concepts and measures of health, disease and disability as well as the design of epidemiological studies. Topics of this course include summarization and presentation of data, probability, sampling distribution, normal distribution, test of hypothesis, association between variables, measures of health and disease; descriptive epidemiology, introduction to study design; sources of error in epidemiology studies; epidemiology and prevention of communicable diseases; surveillance; environmental and occupational epidemiology; concepts in public health.

1420-143 Biology for Health Sciences (4 credit hours)
This is an introductory course for students of the HSC that covers some of the basic aspects of cell biology and its relevance to human health. With the knowledge gained through this course, HSC students should be able to advance into further understanding of basic biomedical sciences such as Biochemistry, Molecular Biology, Microbiology, Physiology and Anatomy.

SECOND YEAR – 32 credit hours

1110-101 English Communication in Pharmacy Practice I (2 credit hours)
This course focuses on the development of transversal competencies such as communication, professionalism, management and leadership, while developing English language speaking and writing abilities.

1110-102 English Communication in Pharmacy Practice II (2 credit hours)
This course continues the development of transversal competencies such as communication, professionalism, management and leadership, while developing English language speaking and writing abilities.

0410-103 Biomathematics (3 credit hours)
Functions and their graphs, the derivatives, application of the derivative, simple integrations, law of growth and decay.

1100-120 Functions of the Human Body (3 credit hours)
This course is an introduction to basic anatomy and basic physiology and will provide the background understanding of the biological systems, before they are deepened in the integrated therapeutic modules. The anatomy portion provides a comprehensive understanding of common anatomical terms, anatomical position and planes. Furthermore, it gives an understanding of the structure and function of the basic tissues of the body. The second part of the course provides a comprehensive understanding of basic human physiology. Students will understand the concept of homeostasis, membrane potential of cells, basics of the nervous system and spinal cord, and the major physiological systems.

1120-104 Organic Chemistry (4 credit hours)
This course will cover such topics as Chemistry of important classes of compounds including alkanes, alkenes, alkynes, alcohols, ethers, epoxides, sulfides, amines, aldehydes, ketones, carboxylic acids and their derivatives. Important types of substitution and elimination chemical reactions will be covered including SN1, SN2, E1 and E2 and free-radical reactions. In addition, aromaticity and benzene and its derivatives and their relevance to pharmaceutical chemistry will be discussed. Furthermore, different aspects of stereochemistry as it relates to isomerism will be explained.

1120-105 Pharmaceutical Chemistry Fundamentals (4 credit hours)
This course will review functional groups and heterocyclic moieties found in pharmaceutical compounds. The course will cover the physicochemical properties, namely, acidity/ basicity, partitioning, degradation (instability) and solubility, and how these factors affect the behavior of drugs in biological systems. The role functional groups in drug receptor interaction and types of chemical bonding will also be covered. The course will also cover selected basic concepts of pharmaceutical chemistry such as drug latentiation, prodrug approach, drug metabolism and the effects of stereochemistry features on biological activity. The course will also discuss some concepts of pharmaceutical analysis including chemical and instrumental analyses with a focus on separation and spectrometric techniques. The laboratory sessions will cover practical problems related to qualitative and quantitative pharmaceutical analysis.

1130-106 Formulation Fundamentals 1 (3 credit hours)
This course will introduce to the students the basic physical and physicochemical sciences involved in the study of pharmaceutics. Topics will cover, solution of non-electrolytes, solutions of electrolytes, buffered and isotonic solutions, surface and interfacial phenomena, solubility, colloids, and rheology. In

addition, this course will provide an introduction to the principles and basics of liquid dosage forms and formulations, additives in liquid preparations, physical properties, rheology, stability and troubleshooting during formulation.

1130-107 Formulation Fundamentals II (3 credit hours)
This course is designed to provide an introduction to the principles and practice of pharmaceutical dosage Forms. These are emulsions, semisolid preparations, percutaneous absorption, sterile products, pharmaceutical aerosols and the principals of pharmaceutical powder properties and characterization, and how these properties affect the characters of some pharmaceutical dosage forms like granules, tablets, capsules and suppositories.

1140-108 Immunology and Microbiology Fundamentals (2 credit hours)
This course introduces students to basic immunology and microbiology in order to prepare them for the integrated therapeutic modules. The immunology portion provides students with a comprehensive understanding of structure and function of the humeral and cellular components of the immune system, their regulation, and their roles in both infectious and non-infectious disease. The microbiology part of the course provides a comprehensive understanding of common pathogens involved in major infectious diseases and the mechanisms of their transmission.

1140-109 Medicines Development Process (1 credit hour)
This course is designed for pharmacy students in order to provide them with the opportunity to understand the discovery and development process of medicines by the pharmaceutical industry. Preclinical and clinical development phases will be explained, including pharmacoeconomics and outcomes research, as well as the regulatory requirements to bring a medicine to market. Pharmacovigilance of marketed products will be discussed.

1110-110 Pharmacy Calculations (2 credit hours)
This course is designed to develop the student's competency in carrying out accurately a range of pharmaceutical calculations. These will include; weight, percentages, changing concentrations and formulae used in dispensing, doses for children and adults, solubility, moles, molarity, reconstitution and intravenous additives, rates of intravenous infusions, and body mass index.

1110-231 Pharmacy Practice Fundamentals (3 credit hours)
This course provides the foundation for engaging in the pharmacy profession. The course will include aspects of professional ethics, the Kuwait pharmacy law, pharmacovigilance, social and behavioral pharmacy. Retrieval strategies for information and critical appraisal of the literature will also be introduced.

THIRD YEAR – 32 credit hours

1120-111 Biochemistry and Biotechnology Fundamentals (4 credit hours)

This course provides a description of the basic classes of biological molecules; their structures, properties, chemical reactions and their functions in living systems. This course also covers the metabolic pathways of proteins, carbohydrates and lipids. An overview of the biological roles of enzyme catalysis, vitamins and minerals as well as chemical messengers is given. The latter part of this course is devoted to the chemical structures and functions of nucleic acids and a brief introduction to basic molecular biology, followed by tools and methods employed in biotechnology. Finally, processes used in pharmaceutical industry for large scale production of therapeutic proteins and secondary medicinal metabolites from plants are covered. The importance of pharmacogenomics in personalized medicine is also described in this course.

1130-112 Biopharmaceutics and Pharmacokinetics (4 credit hours)

This course provides a basic understanding of the concepts of drug absorption, distribution, metabolism and excretion. A major focus is on the physiological, physicochemical and formulation factors affecting the rate and extent of drug absorption after extravascular administration. Also, the common pharmacokinetic behavior after single and multiple drug administration via the IV and oral routes. The pharmacokinetic behavior of drugs that follows one- and multiple pharmacokinetic compartments and are eliminated by linear and nonlinear processes will be discussed. The general relationship between the plasma concentration-time profile and the observed time course of drug effect will be covered.

1140-113 Pharmacology Fundamentals (2 credits)

This is an introductory pharmacology course that is designed to provide students with an understanding of the principles of drug action. Students will also learn about important concepts in pharmacology such as pharmacokinetics, drug affinity, potency, efficacy of drugs as agonists, drug antagonism, receptors (as molecular targets) and dose response curves. Adverse drug reactions, and drug interactions will also be discussed. Students will also be introduced to drugs acting on the autonomic nervous system and autacoids, as they control several body functions.

1120-114 Chemistry of Medicinal and Poisonous Plants (3 credit hours)

This course will cover such topics as chemistry of crude drugs, particularly those of medicinal uses such as alkaloids and glycosides. The course will cover brief account on their natural sources, biological activities, structure activity relationships, medicinal uses with representative examples of pharmaceuticals containing these moieties. Furthermore, drugs of abuse and poisons of natural

sources will also be discussed. Methods of identification of drugs of abuse from natural sources and powder forms will be discussed. The practical components will complement the theoretical aspects of the course, including different chromatographic techniques and detection methods of different classes of drugs of abuse.

1140-115 Principles of Toxicology (2 credit hours)
This course introduces the notions and competency elements related to the management of intoxications either in a primary care setting or in hospitalized patients. Some major intoxications will be covered and others will be part of the integrated therapeutic modules.

1100-116 Principles of Antimicrobial Therapy (3 credit hours)
This course introduces the major pathogens and their sensitivities to available antimicrobial agents, including antibiotics, antivirals and anti-parasites. It provides knowledge about the general principles of infectious disease treatments as a background to specific infectious diseases that will be covered in the integrated therapeutic modules and in the course "Treatment of infectious diseases".

1110-232 Introduction to Pharmaceutical Care (2 credit hours)
This course introduces the steps of the pharmaceutical care process as a foundation to medication therapy management and specialized pharmacotherapy. Students will also be introduced to the medicine reconciliation techniques as a prerequisite for pharmaceutical care. Finally, introduction to systematic medicine information services will be provided.

1100-233 Principles of Special Population Treatment (1 credit hour)
This course focuses on general principles for the optimal treatment of patients belonging to special populations, such as pediatric or geriatric populations and pregnant women. Aspects of physiological changes that influence medicine safety and efficacy will be discussed. Specific disease conditions affecting these populations will be covered in the integrated therapeutic modules.

1110-234 Dispensing in a Community Setting (3 credit hours)
This course introduces the notions and competency elements related to safely dispensing medicines according to best practice and the local regulations for a community setting, including private community pharmacies and governmental polyclinics.

14xx-085 Roles and Responsibilities of Healthcare Providers (0 credit hour)
This course provides knowledge about the scope of practice of the different

health care professions and allows students to use the acquired knowledge in learning activities designed to support the development of competency subdomains related to understanding the unique roles and responsibilities of the healthcare workforce.

1100-361 Integrated Therapeutic Module of Renal Diseases I (2 credit hours)
This course integrates knowledge from disciplines related to the optimal treatment of common renal diseases such as electrolyte abnormalities, edema, and acute and chronic kidney diseases with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmacokinetics, pharmacodynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as minor ailment management, intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-362 Integrated Therapeutic Module of Hematological Diseases I (2 credit hours)
This course integrates knowledge from disciplines related to the optimal treatment of common hematological diseases such as anemia, coagulation or bleeding problems with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmacokinetics, pharmacodynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as minor ailment management, intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-363 Integrated Therapeutic Module of Cardiovascular Diseases I (2 credit hours)
This course integrates knowledge from disciplines related to the optimal treatment of common cardiovascular diseases such as hypertension and dyslipidemia with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmacokinetics, pharmacodynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as minor ailment management, intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-364 Integrated Therapeutic Module of Respiratory Diseases I (2 credit hours)

This course integrates knowledge from disciplines related to the optimal treatment of common respiratory diseases such as asthma, cough, rhinitis and sinusitis with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmacokinetics, pharmacodynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as minor ailment management, intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

FOURTH YEAR – 29 credit hours

1120-117 Instrumental Analysis and Quality Control of Pharmaceuticals (3 credit hours)

This course is designed for pharmacy students, to explore the development process of medicines and to evaluate their quality using different techniques either in pharmaceutical industry or in drug-registration laboratories. The course discusses the various aspects of chemical/instrumental, pharmaceutical and biological quality control processes, in addition to the registration process of pharmaceutical products. The practical sessions of the course are arranged in co-operation with the quality control units at local pharmaceutical industry or drug- registration laboratory.

1110-235 Health Promotion and Education I (2 credit hours)

This course introduces the notions of health promotion to the public either during direct patient care or as patient groups, and to other healthcare professionals through medicine information centers. The course also allows the students to practice the development of competencies relevant to this form of professional activity by doing projects.

1110-236 Health Promotion and Education II (1 credit hours)

This course continues the development of health promotion and education skills by engaging students in community projects.

1130-237 Extemporaneous Preparations in a Community Pharmacy Setting (3 credit hours)

This course prepares students to perform preparation of medicines mainly used in a community setting (ambulatory care) according to best practices and local regulations. During this course, students will execute commonly prescribed preparations.

14xx-090 Working as a Team in the Healthcare System (0 credit hour)
This course provides knowledge about effective communication and working as a team member in the context of the healthcare system. Learning activities are designed to help students to develop the necessary competencies to be effective communicators and team workers in their future practice.

1100-365 Integrated Therapeutic Module of Dermatological and Ear-Nose-Throat Diseases I (2 credit hours)
This course integrates knowledge from disciplines related to the optimal treatment of common dermatological and ear, nose and throat diseases such as pruritus, acne, foot infection, alopecia, conjunctivitis, otitis and tonsillitis with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmacokinetics, pharmacodynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as minor ailment management, intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-366 Integrated Therapeutic Module of Nutrition and Eating Disorders (2 credit hours)
This course integrates knowledge from disciplines related to the optimal treatment of patients with specific nutritional needs or eating disorders, using commercially available or compounded products, such as in total parenteral nutrition. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as extemporaneous preparations, specialized medication therapy management and pharmaceutical counseling for these specific disease conditions.

1100-367 Integrated Therapeutic Module of Central Nervous System Diseases I (3 credit hours)
This course integrates knowledge from disciplines related to the optimal treatment of common central nervous system diseases such as anxiety, affective disorders and headaches with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmaco¬kinetics, pharmacodynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as minor ailment management, intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-368 Integrated Therapeutic Module of Gastro-Intestinal Diseases I (2 credit hours)

This course integrates knowledge from disciplines related to the optimal treatment of common gastro-intestinal diseases such as vomiting, constipation, hemorrhoids and gastro-esophageal reflux with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharma¬ceutics, pharmacokinetics, pharmacodynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as minor ailment management, intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-369 Integrated Therapeutic Module of Endocrine Diseases I (3 credit hours)

This course integrates knowledge from disciplines related to the optimal treatment of common endocrine diseases affecting pituitary, thyroid, parathyroid and adrenal glands with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmaco¬kinetics, pharmacodynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as minor ailment management, intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-370 Integrated Therapeutic Module of Bone and Joint Diseases I (2 credit hours)

This course integrates knowledge from disciplines related to the optimal treatment of common bone and joint diseases such as osteoporosis and rheumatoid arthritis with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmacokinetics, pharma¬codynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as minor ailment management, intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-371 Integrated Therapeutic Module of Diseases of the Reproductive System I (2 credit hours)

This course integrates knowledge from disciplines related to the optimal

treatment of common diseases of the reproductive system such as menopause, contraception and impotency with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmacokinetics, pharmacodynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as minor ailment management, intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1110-491 Ambulatory Professional Practice Experience I (4 credit hours)
This course is an early pharmacy practice experience (EPPE) and provides supervised practical experience in a community setting including private pharmacies and polyclinics. Students will be required to engage in professional activities such as direct patient care, health promotion and education, and professional service management to demonstrate their level of competency.

FIFTH YEAR – 32 credit hours

1100-118 Research Project (3 credit hours)
This course allows the students to develop a theoretical research hypothesis based on current knowledge in a selected area and write an assay using the scientific writing method.

1110-238 Health Promotion and Education III (1 credit hour)
This course continues the development of health promotion and education skills by engaging students in community projects. This course also allows the development of management skills for pharmaceutical services.

1110-239 Health Promotion and Education IV (2 credit hours)
This course continues the development of health promotion and education skills by engaging students in community projects. This course also allows the development of management skills for pharmaceutical services.

1110-240 Dispensing in a Hospital setting (3 credit hours)
This course introduced the notions and competency elements related to safely dispensing medicines according to best practice and the local regulations for a hospital setting, including the medicine circuit and safety measures to allow safe administration of medicines to hospitalized patients (inpatients).

1130-241 Extemporaneous Preparations in a Hospital Pharmacy Setting (3 credit hours)
This course prepares students to perform preparation of medicines mainly

used in a hospital setting (inpatient care) according to best practices and local regulations. Emphasis will be place on pediatric preparations. During this course, students will execute commonly prescribed preparations.

1100-372 Integrated Therapeutic Module of Cardiovascular Diseases II (3 credit hours)

This course integrates knowledge from disciplines related to the optimal treatment of moderate to severe cardiovascular diseases such as coronary artery diseases, acute coronary syndromes, strokes and deep vein thrombosis with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmacokinetics, pharmacodynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-373 Integrated Therapeutic Module of Gastro-Intestinal Diseases II (2 credit hours)

This course integrates knowledge from disciplines related to the optimal treatment of moderate to severe gastro-intestinal diseases such as colitis, inflammatory bowel disease, liver failure, ulcers and cancer with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmacokinetics, pharmacodynamics, therapeutics and pharma¬ceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-374 Integrated Therapeutic Module of Diseases of the Reproductive System II (2 credit hours)

This course integrates knowledge from disciplines related to the optimal treatment of moderate to severe diseases of the reproductive system such as fertility problems, prostatitis, sexually transmitted diseases and incontinence with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmacokinetics, pharmacodynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of compe¬tencies related to pharmaceutical services such as intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-375 Integrated Therapeutic Module of Respiratory Diseases II (2 credit hours)

This course integrates knowledge from disciplines related to the optimal treatment of moderate to severe respiratory diseases such as chronic obstructive pulmonary diseases and pneumonia with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharma¬ceutics, pharmacokinetics, pharmacodynamics, therapeutics and pharma¬ceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-376 Integrated Therapeutic Module of Bone and Joint Diseases II (2 credit hours)

This course integrates knowledge from disciplines related to the optimal treatment of moderate to severe bone and joint diseases such as gout and septic arthritis with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmacokinetics, pharma¬codynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as intoxication management, general and specialized medication therapy mana¬gement, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-377 Integrated Therapeutic Module of Dermatological and Ear-Nose-Throat Diseases II (2 credit hours)

This course integrates knowledge from disciplines related to the optimal treatment of moderate to severe dermatological and ear, nose and throat diseases such as psoriasis, glaucoma, diabetic complications with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmacokinetics, pharmacodynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as intoxication manage¬ment, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-378 Integrated Therapeutic Module of Endocrine Diseases II (3 credit hours)

This course integrates knowledge from disciplines related to the optimal treatment of moderate to severe endocrine diseases such as metabolic

disease, obesity, and diabetes with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmaco¬kinetics, pharmacodynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1110-496 Hospital Professional Practice Experience I (4 credit hours)
This course is an early pharmacy practice experience (EPPE) and provides supervised practical experience in a hospital (inpatient) setting including private and public hospitals. Students will be required to engage in professional activities such as direct patient care, health promotion and education, and professional service management to demonstrate their level of competency.

SIXTH YEAR – 28 credit hours

1100-119 Principles of Anticancer Therapy (2 credit hours)
This course introduces the major mechanism of action of anti-cancer medicines and the scientific basis for their association in cancer treatment. It provides knowledge about the general principles of cancer treatment as a background to specific cancer that will be covered in the integrated therapeutic modules.

1110-242 Pharmaceutical Service Management I (3 credit hours)
This course is designed to allow students to develop management skills related to the professional practice setting. It focuses on workflow management, time management, HR management and service evaluation methods and teamwork. It also provides a framework for life-long learning.

1110-243 Pharmaceutical Service Management II (3 credit hours)
This course continues the development of management skills relevant to an inpatient (hospital) setting. It focuses on workflow management, time management, automation, HR management and service evaluation methods and teamwork.

14xx-095 Collaboration for the benefit of the patient (0 credit hour)
This course will be composed of learning activities to allow students implementing the knowledge and competencies developed in the previous 2 courses with the aim of allowing students to perform in a collaborative manner while resolving clinical scenarios likely to be encountered in practice.

1100-379 Integrated Therapeutic Module of Cardiovascular Diseases III (2 credit hours)

This course integrates knowledge from disciplines related to the optimal treatment of severe cardiovascular diseases such as arrhythmias, congestive heart failure and endocarditis with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmaco¬kinetics, pharmacodynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-380 Integrated Therapeutic Module of Central Nervous System Diseases II (3 credit hours)

This course integrates knowledge from disciplines related to the optimal treatment of moderate to severe central nervous system diseases such as Alzheimer, schizophrenia, epilepsies, Parkinson and substance abuse with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmacokinetics, pharmacodynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of compe¬tencies related to pharmaceutical services such as intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-381 Integrated Therapeutic Module of Renal and Immunological Diseases and Transplantation (3 credit hours)

This course integrates knowledge from disciplines related to the optimal treatment of severe renal diseases such as and end-stage renal disease (with different forms of dialysis), as well as immunological (autoimmune) diseases and transplanted patients with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharmaceutics, pharmacokinetics, pharma¬codynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-382 Integrated Therapeutic Module of Supportive Care (2 credit hours)

This course integrates knowledge from disciplines related to the optimal

treatment of patients with pain or refractory pain, or patients undergoing chemotherapy or at end of life (palliative care) with natural and synthetic medicines. The disciplines include anatomy, physiology, pathophysiology, medicinal chemistry, pharma¬ceutics, pharmacokinetics, pharmacodynamics, therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1110-383 Treatment of Infectious Diseases (3 credit hours)
This course integrates knowledge from disciplines related to the optimal treatment of patients with various infectious diseases (not covered in other ITM) and septicemia. This course is mainly focused on therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1110-384 Treatment of Cancer (3 credit hours)
This course integrates knowledge from disciplines related to the optimal treatment of patients with various forms of cancer, building on the knowledge obtained in 1100-119 (Principles of cancer treatment). This course is mainly focused on therapeutics and pharmaceutical care. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

1100-385 Advanced Pharmacotherapy (4 credit hours)
This course is mainly focused on therapeutics and pharmaceutical care of patients with multiple disease conditions and co-morbidities. It will allow the holistic integration of care in complex patients, including geriatric patients. Learning activities will focus on the acquisition of competencies related to pharmaceutical services such as intoxication management, general and specialized medication therapy management, therapeutic drug monitoring and pharmaceutical counseling in these specific disease conditions.

SEVENTH YEAR – 39 credit hours

1110-492 Ambulatory Professional Practice Experience II (6 credit hours)
This course provides advanced professional practice experience (APPE) as

a supervised practical experience in an ambulatory care setting, including outpatient clinics, polyclinics and community pharmacies. Students will be required to engage in professional activities such as direct patient care, health promotion and education, and professional service management to demonstrate their level of competency.

1110-493 Ambulatory Professional Practice Experience III (7 credit hours)
This course provides advanced professional practice experience (APPE) as a supervised practical experience in an ambulatory care setting, including outpatient clinical, polyclinics and community pharmacies. Students will be required to engage in professional activities such as direct patient care, health promotion and education, and professional service management to demonstrate their level of competency.

1110-495 Unrestricted Professional Experience (6 credit hours)
This rotation is a Non-Direct Patient Care rotation (NDPC). It will occur in practice area in sites that do not primarily provide direct patient care, students can electively choose from a variety of themes and practice areas based on their interest, such as administration and management, drug use evaluation, medicine information center, patient safety, antibiotic stewardship, governmental health services, health outcomes, pharmacovigilance, pharmaceutical journals, hospital health care team clinical services, research and education. Students will actively participate in this experience and take responsibility for developing predetermined competencies that will be assessed.

1110-497 Hospital Professional Practice Experience II (6 credit hours)
This course provides advanced professional practice experience (APPE) as a supervised practical experience in a hospital setting occurring on adult medicine services including and not limited to: internal medicine, cardiology, endocrinology, gastroenterology and respiratory. Students will be required to engage in professional activities such as direct patient care, health promotion and education, and professional service management to demonstrate their level of competency.

1110-498 Hospital Professional Practice Experience III (7 credit hours)
This course provides advanced professional practice experience (APPE) as a supervised practical experience in hospital setting occurring on adult critical and acute care services including and not limited to: intensive care unit, coronary care unit and acute care patients. Students will be required to engage in professional activities such as direct patient care, health promotion and education, and professional service management to demonstrate their level of competency.

1110-499 Hospital Professional Practice Experience IV (7 credit hours)
This course provides advanced professional practice experience (APPE) as a supervised practical experience in a hospital setting to a special population and variety of moderate to severe health care needs including, but not limited to: pediatric, geriatric, hematology, oncology, transplantation, neurology, and psychiatric patients. Students will be required to engage in professional activities such as direct patient care, health promotion and education, and professional service management to demonstrate their level of competency..

Course Prerequisites

In general, courses from one year are all prerequisites to move to the following year.

For the placements (400 courses), the prerequisites are the following:

Course No.	Course Name	Prerequisites #
1110-492	Ambulatory Professional Practice Experience II	All courses of previous year, including 1110-491
1110-493	Ambulatory Professional Practice Experience III	All courses of previous year and 1110-492
1110-495	Unrestricted Professional Experience	All courses of previous year
1110-497	Hospital Professional Practice Experience II	All courses of previous year, including 1110-496
1110-498	Hospital Professional Practice Experience III	All courses of previous year and 1110-497
1110-499	Hospital Professional Practice Experience IV	All courses of previous year and 1110-498

II- The Add-on PharmD Program

The two-year Add-on PharmD program was launched in the 2016/2017 academic year. Students enrolled in the fifth-year Bachelors of pharmacy program, have the option of obtaining the BPharm degree, then re-admitted to the two-year PharmD program, if they fulfill the admission requirements for this program. Also, pharmacists who have pharmacy degree from Kuwait University or other approved universities can apply for the PharmD program.

Graduates of the PharmD program will be professionals who serve as clinical pharmacists on the interdisciplinary health care team and have the responsibility of assuring and promoting the safe, rational, efficacious, and cost-effective use of medication therapy with the goal of achieving definite outcomes toward improvement of the patient's health status and quality of life. The PharmD graduates will be trained to provide clinical pharmacist role in patient care in addition to the pharmacist role in dispensing and be actively involved in the multidisciplinary team alongside physicians and nurses and other healthcare providers.

The PharmD program is designed to graduate:

- Patient-centered, collaborative healthcare providers
- Self-guided, life-long learners using evidence to support decisions and practice
- Accountable practitioners with reputable professionalism and ethical behavior
- Community-oriented professionals conceiving value-added services and public health promotion activities
- Engaged professional leaders and advocates with significant mentoring and communication skills

Graduates will be empowered with competencies to:

- Communicate: Pharmacists communicate effectively with patients, the pharmacy team, other health care professionals and the public, providing education when required, using effective verbal, non-verbal, listening and writing skills in both individual and group settings.
- Access & Critically Appraise Information: Pharmacists access, retrieve and critically analyze information to make evidence-informed decisions within their practice and management with the goal of ensuring safe and effective patient care.

- Solve Problems & Make Decisions: Pharmacists apply relevant information to make evidence-informed decisions within their practice and management with the goal of ensuring safe and effective patient care as a medication therapy expert.
- Collaborate: Pharmacists work in collaboration with the pharmacy team, other HCP and groups/ associations to deliver comprehensive services, make best use of resources and ensure continuity of care in order to achieve the patient's health goals.
- Engage in Life-Long Learning: Pharmacists seek to remain competent and update their knowledge, skills and attitudes to offer optimal education and patient care throughout their professional career)
- Manage: Across the different components of their practice, pharmacists apply good management principles for time and human resources management, process optimization and marketing of services)
- Act Professionally: Pharmacist uphold self-regulation within legal requirements, professional standards of practice, code of ethics and policies for the fulfillment of their professional obligations)
- Be Proactive: Pharmacists initiate or collaborate in developing, implementing and evaluating research, policies, procedures and other activities that promote quality and safety, health and well-being, and the profession.

1. Admission

Admission types

Full-time, Post-Baccalaureate PharmD program

Admission Requirements

A. Students who are enrolled in KU BPharm Program

- Admission of the students who are enrolled in KU BPharm Program to the PharmD program is optional.
- Students will have to successfully complete the fifth year in the BPharm program and obtain a Bachelor degree in Pharmacy*.
- A minimum general GPA of 2.5 on the 4-point scale.
- Students should not have obtained one or more grade of "F" in more than one semester.
- Assessment on the applicant fundamental pharmacy knowledge and practice issues.

* The progression of students from the B Pharm program (5 years) to the Pharm D program (2 years) will be similar to the progression of the students in the Faculty of Medicine and the Faculty of Dentistry after they finish the fourth year, and progress to the Clinical phase of their study.

B. Pharmacy graduates
   - Kuwaiti and non-Kuwaiti graduates from KU BPharm program.
   - To be a Kuwaiti with an undergraduate pharmacy degree from a NBAQ accredited Faculty of Pharmacy.
   - A minimum general GPA of 2.5 on the 4-point scale.
   - Assessment on the applicant fundamental pharmacy knowledge and practice issues.
   - Pharmacy graduates accepted to the PharmD program are responsible for making their own arrangement with their employers to be enrolled in this full-time program.

Ranking of Applicants

The criteria for ranking the applicants:

- The general GPA 25%
- The specialty GPA 25%

A. **For KU graduates**: Based on the grades in the following courses:
   - 1110-542 Advanced Pharmaceutical Care
   - 1110-507 Administrative and Professional Pharmacy
   - 1110-404 Pharmaceutical Care II
   - 1110-406 Pharmaceutical Care II-Practical
   - 1110-403 Pharmaceutical Care I
   - 1110-405 Pharmaceutical Care I-Practical

B. **For graduates from other universities**:
   - Based on the grades in courses related to the pharmacy practice
   - An assessment in the field of Pharmacy practice 50%*

*This includes assessment of the candidate's capabilities, knowledge, caring attitude, motivation, leadership, and problem- solving ability

BPharm students admitted directly to the PharmD program

- All students who complete the BPharm requirements (including those applying to the PharmD program) will get their BPharm Degree Certificate from Kuwait University.
- Applicants accepted to be enrolled in the PharmD program will be re-admitted to Kuwait University, and will not be allowed to work during their studies.
- The GPA of students in the PharmD program will be the cumulative GPA from the BPharm program + the PharmD program.

Duration of the study

The duration of the study is two years with the first year being mostly active learning with practice laboratory built in into each class and the second

year dedicated to various experiential clerkships where the students get to apply their knowledge and demonstrate their clinical competencies.

Requirements to remain in the program

- Attendance (as per the University requirement) in both theory and practical components of the program.
- Satisfactory completion of course assignments, projects, and others.

2. Global Curriculum Characteristics

- Active learning
  - The curriculum engages and challenges the student to develop defined competencies (competency-based approach).
  - Competencies have different levels of expectations as student progress and these levels are known in advance.
  - The curriculum prepares the students to become life-long learners by finding quality and relevant information, and developing skills to summarize, analyze and evaluate the literature.
- Pharmacy practice labs
  - Theory is confronted with practical problems in a secure environment.
  - Students come prepared to the different lab sessions.
  - A mix of academic support staff, practicing pharmacists and 2nd year PharmD students provide supervision and feedback.
- Projects
  - Students (team-based) conceive and implement relevant community-based projects for advancing pharmacy practice or improving the outreach and image of pharmacy (advocacy).
  - Peer-assessment is implemented and used regularly to stimulate active participation of all team members.
- Practice experience
  - The practice experiences are a natural continuity from the content seen in the courses, skill labs or projects.
  - Rotations are preceptor-based but constructed to provide optimal guidance and active involvement of students.
  - Mid-clerkship formative assessment is mandatory to allow remediation and preceptor assessment is performed by students after each rotation.
  - There is one elective rotation that is not direct patient care, taking the form of a project. This project could be assessed through a

presentation to first year PharmD students.

- Quality assessment and improvement
  - The curriculum is assessed periodically, both in terms of the pedagogical environment and quality of the graduates (keeping in mind the 5 major objectives).
  - Key performance indicators (KPI) are developed to measure important aspects of the curriculum (input, transformation and output) over time.
- Learning methods selection
  - The learning material is spread through active learning classes, labs, projects and practice experience, to offer a learning continuum.
  - The global learning framework is similar across the curriculum.
  - Methods represent a form of active learning enabling the student to construct surface and deep understanding (analyze, apply and evaluate according to Bloom's taxonomy).
  - Methods require that students deal with problematic situations using critical thinking.
- Student support
  - An orientation activity is organized for new students to understand the learning environment.
  - The supervision is more individualized though periodical monitoring and with the help of small group tutors.

3. Assessment

Global assessment framework (programmatic assessment)

- Assessment will be done in a more continuous fashion. The last assessment of a course will represent a minimum of 40% of the total grade.
- The assessment framework measures the progression of the students in their knowledge acquisition and competency development.
- The number of measurements is sufficient to assess the progression of a student. Students are assessed early and continuously and on an individual basis as much as possible, even within group activities.
- Since assessment drives learning, assessment focuses on higher dimensions of learning (applying, analyzing and evaluating in the revised Bloom's taxonomy).
- The grade assignment for courses follows same scale as in the BPharm Program.

Methods of assessment and feedback

- Methods of assessment are coherent with the competency or the knowledge assessed.
- A feedback component (either individually or as a group) is part of each assessment method in each course.

4. Progression Requirements

General rules:

- Students, stopping their studies for medical reasons, resume their studies as soon as possible. During the leave.
- Students have a maximum of 3 years (from the time of admission) to complete the program.

During the first year:

- Before starting a semester, a student must complete successfully all the courses of the prior semester with an average above 2.0
- Students not passing a course will have a chance to sit for a re-sit examination. Students failing a re-sit exam are allowed to repeat the course only once.

During the second year:

- Students failing a clerkship (course), must repeat the clerkship (course) after the current year (no re-sit possible)
- Failing more than two clerkships (course) leads to dismissal from the program.
- Failing twice the same clerkship (course) is also grounds for dismissal.
- Students having a critical issue (endangering the patient life) during a clerkship (course) are dismissed from this rotation (with F grade), (A list of critical issues is provided to the students and preceptors).

5. Graduation Requirements

Successful completion of all the first-year courses (a total of 36 Credit hours during the first year of the program):

- Clinical Pharmacokinetics
- Physical and Chemical Assessment
- Evidence-based Pharmacy Practice I
- Advanced Pharmacotherapy I
- Advanced Pharmacotherapy II
- Social & Behavioral Aspects of Pharmaceutical Care
- Advanced Pharmacotherapy III
- Advanced Pharmacotherapy IV

- Advanced Pharmacotherapy V
- Advanced Pharmacotherapy VI
- Evidence-based Pharmacy Practice II

Successful completion of all second-year clerkship (courses) (A total of 30 credits during the second year of the program):

- Advanced Professional Practice Experience-I
- Advanced Professional Practice Experience-II
- Advanced Professional Practice Experience-III
- Advanced Professional Practice Experience-IV
- Advanced Professional Practice Experience-V
- Advanced Professional Practice Experience-VI

6. Graduation Regulations

Major Sheets

Course No.	Course Name	CH	Prerequisites #
First Year First Semester[1]			
1110-611	Clinical Pharmacokinetics	3	1110-504 or 1120-514 or 1130-524 or 1140-534 or approval of the PharmD program director
1110-613	Physical and Chemical Assessment	3	1110-504 or 1120-514 or 1130-524 or 1140-534 or approval of the PharmD program director
1110-615	Evidence-based Pharmacy Practice I	2	1110-504 or 1120-514 or 1130-524 or 1140-534 or approval of the PharmD program director
1110-617	Advanced Pharmacotherapy I	4	1110-504 or 1120-514 or 1130-524 or 1140-534 or approval of the PharmD program director
1110-619	Advanced Pharmacotherapy II	4	1110-504 or 1120-514 or 1130-524 or 1140-534 or approval of the PharmD program director
Second Semester[2]			
1110-622	Advanced Pharmacotherapy III	4	1110-611, 1110-613, 1110-615, 1110-617, 1110-619, and 1110-621
1110-624	Advanced Pharmacotherapy IV	4	1110-611, 1110-613, 1110-615 1110-617, 1110-619 and 1110-621
1110-626	Advanced Pharmacotherapy V	4	1110-611, 1110-613, 1110-615, 1110-617, 1110-619 and 1110-621
1110-628	Advanced Pharmacotherapy VI	4	1110-611, 1110-613, 1110-615, 1110-617, 1110-619, and 1110-621
1110-630	Evidence-based Pharmacy Practice II	2	1110-611, 1110-613, 1110-615, 1110-617, 1110-619, and 1110-621

Second Year[3,4] All courses are practice experience placements [3,4] Each experiential clerkship is 5-7 weeks long [5,6]			
1110-711	Advanced Professional Practice Experience I	5	1110-622, 1110-624, 1110-626, 1110-628, and 1110-630
1110-712	Advanced Professional Practice Experience II	5	1110-622, 1110-624, 1110-626, 1110-628, and 1110-630
1110-713	Advanced Professional Practice Experience III	5	1110-622, 1110-624, 1110-626, 1110-628, and 1110-630
1110-714	Advanced Professional Practice Experience IV	5	1110-622, 1110-624, 1110-626, 1110-628, and 1110-630
1110-715	Advanced Professional Practice Experience V	5	1110-622, 1110-624, 1110-626, 1110-628, and 1110-630
1110-716	Advanced Professional Practice Experience VI	5	1110-622, 1110-624, 1110-626, 1110-628, and 1110-630

[1] Registration for the first semester courses (1110-611, 1110-613, 1110-615, 1110-617, 1110-619, and 1110-621) requires admission to the PharmD program and students are required to get approval of the Director of the PharmD program.

[2] Students will have to successfully complete all the courses in the first semester (1110-611, 1110- 613, 1110-615, 1110-617, 1110-619, and 1110-621) with an average GPA of at least 2.0 to register any of the courses in the second semester.

[3] Three of the second-year courses (Experiential clerkships, 1110-711, 1110-712, 1110-713, 1110-714, 1110-715, and 1110-716) will be offered in the first semester and the other three will be offered in the second semester.

[4] The students must successfully complete all the first-year courses (6 courses in the first semester, totaling 18 Credits, and 5 courses in the second semester, totaling 18 credits), with an average GPA of at least 2.0, before they can register for the 700 courses (the experiential clerkship).

[5] Experiential clerkship: 30 hours per week = 5 credit hours per semester (direct and non-direct patient care clerkships).

[6] The students will be supervised and evaluated by a qualified preceptor during each clerkship, and the Faculty will provide support both to the students and preceptors on a needs basis.

7. Course Descriptions

1110-611 Clinical Pharmacokinetics (3 credit hours)

This course combines the theoretical and case-based approach to teaching students how to manage drug therapy from a kinetic perspective. Students will learn to evaluate variability in pharmacokinetics due to physiological as well as disease states. They will also learn to approach dosage determinations based

upon kinetic properties (i.e. low extraction ratio hepatically cleared drugs, high extraction ratio hepatically cleared drugs, renally cleared and mixed renally and hepatically cleared drugs). Students will then be given the opportunity to practice dosing selected drugs using a case-study scenario.

1110-613 Physical and Chemical Assessment (3 credit hours)
This course is designed to provide students the basic knowledge necessary to understand the appropriate physical examinations done on a patient and be able to perform only certain basic physical exams such as reading blood pressure, pulse, and temperature. On the other hand, it will also provide the information needed to understand and evaluate common laboratory tests, both OTC and those requiring a physician order.

1110-615 Evidence-based Pharmacy Practice I (2 credit hours)
This course will introduce students to evidence-based pharmacy practice. Course content will focus on drug information and pharmacoepidemiology. It is designed to provide the student with fundamentals of the practice of drug information. It will concentrate on development of drug information skills necessary for delivery of pharmaceutical care using a systematic approach to drug information retrieval and the ability to judge the reliability of various sources of information. It will help the student to participate in the pharmaceutical care system's processes for conducting drug utilization reviews/evaluations (DUR/DUE) within medication management system, and for reporting and managing medication errors and adverse drug reactions.

1110-617 Advanced Pharmacotherapy I (4 credit hours)
This course focuses on the pharmacotherapy and the role of the pharmacist in cardiovascular and pulmonary disease state management of Hypertension, Ischemic Heart Disease, Arrhythmias, Myocardial Infarction, Heart Failure, Stroke, Lipid Disorders, Anticoagulation, Asthma, and Chronic Obstructive Pulmonary Disease (COPD). Emphasis will be placed on the integration of chemistry, pharmaceutics, pathophysiology, pharmacology and therapeutics to devise appropriate pharmacy care plans. These plans will include rationale for drug use, selection and dosing regimens, expected outcomes of drug therapy, key monitoring parameters, clinically important drug-drug or drug-disease interactions, counseling and compliance issues.

1110-619 Advanced Pharmacotherapy II (4 credit hours)
This course focuses on the pharmacotherapy and the role of the pharmacist in disease state management of fluid/electrolyte balance, renal disease, and common gastrointestinal and nutritional disorders. Major gastrointestinal disorders include pancreatitis, inflammatory bowel disease, diarrhea and

constipation, liver failure, peptic ulcer disease, gastroesophageal reflux disease (GERD), and hepatitis. Major nutritional topics include nutritional assessment, parenteral and enteral nutritional support, nutrition in special populations, and nutritional supplements. Emphasis will be placed on the integration of chemistry, pharmaceutics, pathophysiology, pharmacology and therapeutics to devise appropriate pharmacy care plans. These plans will include rationale for drug use, selection and dosing regimens, expected outcomes of drug therapy, key monitoring parameters, clinically important drug-drug or drug-disease interactions, counseling and compliance issues.

1110-621 Social and Behavioral Aspects of Pharmaceutical Care (2 credit hours)

This course will help develop effective methods for developing positive, therapeutic relationships with patients through the application of communication skills (empathy, assertiveness training, effective listening, etc.) and other behavioral interventions.

1110-622 Advanced Pharmacotherapy III (4 credit hours)

This course focuses on the pharmacotherapy and the role of the pharmacist in disease state management of Infectious Diseases. Examples of infectious diseases covered include CNS infections, infective endocarditis, respiratory and urinary tract infection, gastrointestinal infections, septicemia, bone and joint infections, skin and soft tissue infections, sexual transmitted diseases and infections of obstetrics. Emphasis will be placed on the integration of chemistry, pharmaceutics, pathophysiology, pharmacology and therapeutics to devise appropriate pharmacy care plans. These plans will include rationale for drug use, selection and dosing regimens, expected outcomes of drug therapy, key monitoring parameters, clinically important drug-drug or drug-disease interactions, counseling and compliance issues.

1110-624 Advanced Pharmacotherapy IV (4 credit hours)

This course focuses on the pharmacotherapy and the role of the pharmacist in disease state management of cancer and hematological diseases. Examples of cancers covered include solid tumor malignancies such as breast cancer, prostate, cancer, colorectal cancer, lung cancer; hematological disorders such as anemia and bleeding disorders; and hematological malignancies such as leukemia, lymphoma, and myeloma. Emphasis will be placed on the integration of chemistry, pharmaceutics, pathophysiology, pharmacology and therapeutics to devise appropriate pharmacy care plans. These plans will include rationale for drug use, selection and dosing regimens, expected outcomes of drug therapy, key monitoring parameters, clinically important drug-drug or drug-disease interactions, counseling and compliance issues.

1110-626 Advanced Pharmacotherapy V (4 credit hours)
This course focuses on the pharmacotherapy and the role of the pharmacist in disease state management of disorders of central nervous system and common disorders of pediatrics and geriatrics. Examples of disorders of central nervous system covered include Alzheimer's disease, Parkinson's disease, seizure disorders, and depression. Emphasis will be placed on the integration of chemistry, pharmaceutics, pathophysiology, pharmacology and therapeutics to devise appropriate pharmacy care plans. These plans will include rationale for drug use, selection and dosing regimens, expected outcomes of drug therapy, key monitoring parameters, clinically important drug-drug or drug-disease interactions, counseling and compliance issues.

1110-628 Advanced Pharmacotherapy VI (4 credit hours)
This course focuses on the pharmacotherapy and the role of the pharmacist in disease state management of both endocrine and immune disorders including hormone replacement, osteoporosis, rheumatoid and osteoarthritis, lipid disorders, diabetes, and multiple sclerosis. Emphasis will be placed on the integration of chemistry, pharmaceutics, pathophysiology, pharmacology and therapeutics to devise appropriate pharmacy care plans. These plans will include rationale for drug use, selection and dosing regimens, expected outcomes of drug therapy, key monitoring parameters, clinically important drug-drug or drug-disease interactions, counseling and compliance issues.

1110-630 Evidence-based Pharmacy Practice II (2 credit hours)
Course content will focus on biostatistics/literature evaluation and pharmacoeconomics. It is designed to help the student to understand principles of biomedical statistics, fundamentals of clinical research design, and systematic approaches for critical evaluation of medical literature for use in clinical and/or administrative decision-making, use of research as a tool to investigate and provide solutions to practice-based problems. It will acquaint the student with the economic principles in relation to pharmacoeconomic analysis, concepts of pharmacoeconomics in relation to patient care, application of economic theories and health-related quality of life concepts to improve allocation of limited health care resources.

1110-711 Advanced Professional Practice Experience-I (5 credit hours)
This course provides supervised practical experience in a hospital setting occurring on an adult Internal Medicine Service evaluating and providing direct patient care including and not limited to cardiology, endocrinology, gastroenterology, and respiratory patients. Students will be required to assimilate patient relevant data, design a pharmaceutical care and monitoring plan, promote public awareness of Health and disease, provide continuing

educational program, and manage medication related problems.

1110-712 Advanced Professional Practice Experience-II (5 credit hours)
This course provides supervised practical experience in hospital setting occurring on an adult Critical and Acute Care Service evaluating and providing direct patient care including and not limited to Intensive Care Unit, Coronary Care Unit, and Acute Care Patients. Students will be required to assimilate patient relevant data, design a pharmaceutical care and monitoring plan, promote public awareness of Health and disease, provide continuing educational program, and manage medication related problems.

1110-713 Advanced Professional Practice Experience-III (5 credit hours)
This course provides supervised practical experience in an Ambulatory Care setting evaluating ambulatory care patients. Students will be required to assimilate patient relevant data, design a pharmaceutical care and monitoring plan, promote public awareness of Health and disease, provide continuing educational program, and manage medication related problems.

1110-714 Advanced Professional Practice Experience-IV (5 credit hours)
This course provides supervised practical experience in a hospital setting evaluating and providing direct patient care to a special population and variety of health care needs including but not limited to hematology/oncology, transplant unit, and infectious disease patients. Students will be required to assimilate patient relevant data, design a pharmaceutical care and monitoring plan, promote public awareness of Health and disease, provide continuing educational program, and manage medication related problems.

1110-715 Advanced Professional Practice Experience-V (5 credit hours)
This course provides supervised practical experience in a hospital setting evaluating and providing direct patient care to a special population and variety of health care needs including but not limited to pediatric, geriatric, neurology, and psychiatry patients. Students will be required to assimilate patient relevant data, design a pharmaceutical care and monitoring plan, promote public awareness of Health and disease, provide continuing educational program, and manage medication related problems.

1110-716 Advanced Professional Practice Experience-VI (5 credit hours)
This rotation is a Non-Direct Patient Care rotation (NDPC). It will occur in practice area in sites that do not primarily provide direct patient care, students can electively choose from a variety of themes and practice areas based on their interest, such as Administration /Management, Drug Use Evaluation, Drug Information, Drug/Medication /Patient safety, Antibiotic Stewardship,

Government/Health Services, Health outcomes, Pharmacovigilance, Pharmaceutical Journals, Hospital/Health care Team Clinical Services, Research, Teaching and Education. Students will participate and take responsibility for acquiring knowledge and skills in various structures and functions of pharmacy Practice or health care systems. Students will communicate regularly and collaborate with team members.

III- Master Program in Pharmaceutical Sciences (MSc)

The Faculty of Pharmacy launched its postgraduate master program in pharmaceutical sciences (MSc) in September 2014. The establishment of this program was one of the faculty's strategic goals in-line with its mission to continuously develop the pharmacy education in Kuwait. This program was the first multidisciplinary graduate program in the area of pharmaceutical sciences in Kuwait. Its major objective is to prepare graduates to be future academicians and researchers who are highly knowledgeable, skillful and competent in the pharmaceutical sciences in order to meet the current Kuwaiti society's pharmaceutical needs and deal with the future challenges and development in pharmaceutical sciences and their applications in Kuwait and the Middle East and North Africa (MENA) region.

Vision

To be a leading postgraduate MSc program in the MENA region that provides students with up-to-date knowledge and know-how related to the pharmaceutical sciences, in addition to developing, in our students, cutting edge research skills and competencies through innovative teaching methodologies and exposure to state of the art technology.

Mission

This program is primarily designed to:

- Impart advanced knowledge and skills related to pharmaceutical sciences.
- Provide opportunities to those who wish to peruse postgraduate training in the field of pharmaceutical sciences in Kuwait.
- Promote lifelong learning and prepare students to be independent, creative and competent researchers who are able to deal with fast developing challenges in the area of pharmaceutical sciences.
- Prepare individuals who are able take on challenges related to the healthcare system in Kuwait and the MENA region.

1. Admission

1.1. Admission Policy

All applicants to the Master program submit their applications to the College of Graduate Studies, Kuwait University.

1.2. Admission Types Allowed

Full-Time (regular students) or part-time (non - regular students). Different regulations apply to the different admission types.

1.3. Admission Requirements

- All candidates must hold a bachelor's degree in pharmacy or PharmD from the Faculty of pharmacy, Kuwait University or from other faculties of pharmacy recognized by Kuwait University/Ministry of Higher Education. Strong applicants with bachelor's degree in biomedical sciences may also be considered.
- All candidates must have a minimum GPA of 2.67 (all subjects for full-time) and 2.60 (all subjects for part-time) on a 4.00 point- scale or equivalent.
- All candidates must have a minimum TOEFL score of 500 for English language proficiency.

1.4. Student Selection Criteria

All applicants are ranked based on their score which is made up of three criteria:

- A written exam (25%)
- An interview evaluating the candidate's capabilities and aptitude (15%). This is based on a College of Graduate Studies standard interview template.
- The GPA of the student. A tapering scale is used to allocate a % that is based on the GPA (max 60%)

1.5. Degree Requirements

- Completion of 24 credits of the course work, distributed as 12 credits (semester 1) and 12 credits (semester 2).
- Obtaining an overall average GPA of 3.00 points on a scale of 4.00.
- Successful defense of the thesis.

1.6. Program Capacity

Six qualified candidates are admitted in the program per year. The number may change according to the availability and needs of the Faculty.

1.7. Duration of the Study

The program has two main components: taught courses and a research project. The taught courses are covered in the first year of the program which is divided over two semesters. After successfully completing the first year, the students then register for their thesis project which can take anywhere from 12 -18 months.

A full-time student should graduate within 3.5 years and a part-time student must graduate within 4.5 years.

1.8. Exams

The evaluation of the students in the program is based on written and oral assessment methods. The written component may comprise cases studies, short answer questions, short notes, problem-based learning, essays and a mini-project. These are done both in a continuous assessment format and as mid and end of term exam papers. The oral assessment is based on seminars/ presentations delivered by students on a variety of topics in several of the courses. After submission of the of research project thesis, the student will present a seminar on their work and will defend their work to an examination committee.

2. Curriculum

Major Sheet

PROGRAM REQUIREMENTS

24 TOTAL COURSE CREDITS

21 COMPULSORY COURSES (Credits in parenthesis)

1100-525	Advanced Biopharmaceutics and Pharmacokinetics	(3)
1100-540	Drug Discovery and Development	(3)
0550-505	Molecular Pharmacology	(2)
0510-501	Biostatistics and Computer in Medicine	(2)
2000-501	Scientific Writing and Communication Skills	(3)
1100-520	Advanced Pharmaceutical Chemistry	(3)
1100-521	Techniques in Pharmaceutical and Pharmacological Research	(3)
2000-503	Ethics and Professionalism	(2)

3 ELECTIVE COURSES

1100-522	Evidence-based Phytotherapy	(3)
1100-527	Advanced Drug Delivery Systems	(3)
1100-541	Central Neuropharmacology	(3)

The student should select only ONE course from the list of elective courses.

COMPULSORY (Thesis)*

1100-597 I	(0)
1100-598 II	(0)
2000-599 III	(9)

* Minimum GPA: 2.67, Minimum Credits: 12 CH

The MSc courses are divided on TWO semesters:

Semester 1		
1100-525	Advanced Biopharmaceutics and Pharmacokinetics	(3)
0550-505	Molecular Pharmacology	(2)
0510-501	Biostatistics and Computer in Medicine	(2)
1100-520	Advanced Pharmaceutical Chemistry	(3)
2000-503	Ethics and Professionalism	(2)
Semester 2		
1100-540	Drug Discovery and Development	(3)
2000-501	Scientific Writing and Communication Skills	(3)
1100-521	Techniques in Pharmaceutical and Pharmacological Research	(3)
1100-522	Elective	(3)

3. Course Descriptions

0500-501 Biostatistics and Computer in Medicine (2 credit hours)

The course provides the different concepts of statistics such as basic probability issues, sampling distribution, correlation, regression and the applications of these concepts in Epidemiology. The course provides the students the different types of computers, software packages and the use of computers in medicine and pharmacy, health information and drug information systems.

2000 503 Ethics and Professionalism (2 credit hours)

This course provides the definition of ethics and professionalism, ethics in conducting research and reporting results, components of ethics and professionalism, ethics in Islam, professionalism and leadership, environmental ethics, conflict of interest, case studies.

1100-525 Advanced Biopharmaceutics and Pharmacokinetics (3 credit hours)

This course provides the molecular, physiological and pathological factors affecting drug absorption and how these factors can be modified to optimize the absorption process. The course also provides the different experimental models that can be used to study drug pharmacokinetics in humans. Important issues including drug-drug interactions, bioavailability-bioequivalence, pharmacokinetic and pharmacodynamic correlations are discussed. A survey of the various techniques pertinent to clinical pharmacokinetics and dosage adjustments are overviewed. The fundamentals of therapeutic drug monitoring (TDM) for dosing patients more rationally and safely are discussed.

1100-540 Drug Discovery and Development (3 credit hours)
This course provides an understanding of the interrelated activities throughout the drug development cycle. All steps involved in developing a drug from discovery to marketing are discussed. The latest innovations in drug discovery, issues of drug pharmacokinetics in drug discovery, issues of ethical and governance requirements of research including Good Clinical Practice are reviewed. Moreover, chemical and biochemical approaches to drug design and the role of the functional groups in drug-receptor interactions are studied.

0550-505 Molecular Pharmacology (2 credit hours)
The course provides an understanding of the molecular interactions between drug molecules and receptors or other macromolecular targets in cells, as well as how the chemical structure correlates with biological activity. The course discusses how cells receive, transmit and respond to external signals from hormones, transmitters and pharmacological agents, and how molecular biology techniques are utilized to study these events. The course introduces the students to the latest advances in molecular pharmacology, namely, pharmacogenomics, bioinformatics, proteomics, micro-array technology, gene silencing technology and their applications in pharmacological research.

1100-521 Advanced Pharmaceutical Chemistry (3 credit hours)
This course provides an updated chemistry knowledge of important synthetic and natural medicinal compounds. The organic chemistry methodologies for the chemical synthesis of compounds of pharmaceutical interests are reviewed. The physicochemical properties, metabolic pathways, structure-activity relationships (SARs) and therapeutic and toxicological aspects will are discussed. Important medicinal classes such as psychoactive compounds, antibiotics, anticancer agents, immunosuppressive agents, steroids ware demonstrated and discussed in detail. Instrumental techniques for structural elucidation and for biopharmaceutical analysis of drugs, metabolites and biomolecules in biological media are studied.

1100-521 Techniques in Pharmaceutical & Pharmacological Research (3 credit hours)
This course provides the students with important techniques and skills necessary for pharmaceutical research. Pharmaceutical Chemistry Laboratory sessions related to the isolation and structural elucidation of compounds from natural and synthetic sources are given. Spectrometric (UV/VIS, IR), mass spectrometric (MS, NMR), chromatographic (TLC, UPLC, LC-MS/MS, GC-MS) are used. Pharmaceutics Laboratory sessions dealing with drug dissolution and stability studies are conducted. Laboratory problems related to the biopharmaceutics and pharmacokinetics determinations in animals

are addressed. The course also provides laboratory experiments on important pharmacological techniques in the research areas of neuropharmacology, respiratory pharmacology, therapeutic drug monitoring, pain and inflammation pharmacology are conducted.

2000 501 Scientific Writing and Communication Skills (3 credit hours)
This course provides a review of the language of scientific writing and its appropriate use, art of writing a grant, thesis and manuscript, use of software for references, response to reviewer's comments, communicating and disseminating scientific information to audience.

1100-522 Evidence-based Phytotherapy (Elective) (3 credit hours)
This course provides the basis of evidenced-based evaluation of Phytotherapy, Complementary and Alternative Medicine (CAM) modalities. Students explore the utilization of herbal dietary supplements and CAM therapies. Claims, regulations and standardization of herbal medicines are highlighted. Classes of natural products: such as Carbohydrates, Alkaloids, Glycosides, Flavonoids, Tannins, Bitter Principles, Vitamins and constituents from toxic plants; are discussed with respect to the sources, chemical structures, biological roles, and medicinal products.

1100-527 Advanced Drug Delivery Systems (3 credit hours)
This course discusses the biochemical and physiological barriers that hinder the drug delivery to various body organs. The strategies of overcoming these barriers and approaches used to design drug delivery systems for specific therapeutic use are surveyed. In vivo and in vitro evaluations of the designed delivery systems are discussed. This course also focuses on the fundamental concepts of specialized modern dosage forms such as sustained-release formulations, melting and fast disintegrating tablets, depot injections and inhalation products. The expected outcomes of administration of these drug formulations such as patient compliance and reduction of the caring costs are overviewed.

1100-541 Central Neuropharmacology (3 credit hours)
This course provides a comprehensive coverage of the molecular composition, physiology, function and pharmacology of neurons and the pathological changes that lead to CNS disorders. The different neurotransmitter systems and their roles in the physiology and pathology of CNS disorders are covered. Pharmacological agents in current medical use as well as the future therapeutic agents are discussed.

The Code of Conduct

for Students Enrolled in the Faculty of Pharmacy
Kuwait University

1. Introductions

This code of conduct is a set of guidelines on how pharmacy students should behave during their studies in the Faculty of Pharmacy, Kuwait University. It is one way of ensuring that, while the students learn the competencies required for their practice, they adhere to the professional, ethical, and legal standards prescribed for the practice of the pharmacy profession.

Pharmacy students must conduct themselves professionally at all times, from the first day of the program to their graduation day. This code of conduct applies both on and off campus, and students must remember that wherever they are, they are representing the profession of pharmacy and their university.

The code of conduct for student pharmacists is typically reviewed during the orientation to the Pharmacy program and is enforced throughout the time the student is enrolled in the Faculty of Pharmacy. It is important that every student in the pharmacy program carefully read and understand the code of conduct. There may be behaviors described which you have previously carried out and are now deemed unacceptable by the code.

Students in the Pharmacy program at Kuwait University are obliged to follow the code of conducts for the pharmacy students, in addition to the general code of ethics* for all Kuwait University students which governs the student relationship with the academic staff members and employees, the university, their colleagues, and the community.

*Download KU Code of Ethics at:
http://www.kuniv.edu/ku/Students/References/index.htm

2. Professionalism

Students admitted to the pharmacy program are considered future members of the pharmacy profession and therefore bear the responsibility of building professional identity founded on integrity, ethical and legal behavior, and honor. This development is a vital component of the pharmacy program and while the students learn about the discovery, development and use of safe and effective medications, they develop values, attitude and competencies

that they will use as pharmacists to promote the health and wellbeing of patients. Integrity, honesty and honor should be part of the student's daily activities throughout the program.

To accomplish this goal of professional development, pharmacy student should:

a. **Develop a sense of loyalty to the pharmacy profession**
   You must accept all the responsibilities and accountabilities for belonging to the pharmacy professions including high professional aspirations for pharmacy practice, high personal standards of integrity and competence, a commitment to serve the patients and the society, habits of analytical thinking and ethical reasoning, and a commitment to lifelong learning.

b. **Make patients your first concern**
   You must ensure that whatever you learn in the pharmacy program, you can apply for the maximum benefit of patients, and your professional judgments should be to the best interest of the patients and the community and is not influences by your personal beliefs or individual interest.

c. **Foster professional competency to provide optimal patient care**
   You should take the responsibility for the development of your professional knowledge and competencies, throughout the pharmacy program and to be able to apply these knowledge and skills in managing the patient therapeutic plan and pharmaceutical care. Also, you must be aware of the importance of continuous professional development which is required to maintain the up-to-date knowledge and skills required for the pharmacy profession.

d. **Show respect to others**
   You must know that to develop a proper professional relationship with patients, other health care professionals, colleagues, and any member of the society, you should demonstrate respect to their abilities, views, rights, and beliefs, in addition to treating them politely. While disclosing the information necessary to optimize the patient care to other professionals, you must respect the confidentiality of the patient information.

e. Be honest and trustworthy

You must act with honesty and integrity, respond openly and courteously to complain and criticism, use laboratory data honestly and ethically, and honor your commitment to ethical, legal, and professional behavior.

f. Maintain the highest ideals and professional attributes

You must follow the rules and regulations of your university, comply with this Code of Conduct, conduct yourself appropriately, plan and use your time effectively, ask for help once you feel that you need it, and take responsibility of your own health especially when it impact the health of others.

The pharmacy profession requires adherence to the highest standard of professional and ethical behavior to ensure the quality of patient care provided. Commitment to these high standards should start from the time of joining the Faculty of Pharmacy community and should be sustained while progressing to join the pharmacy profession.

3. Academic Conduct

3.1. Behavior: Students should adhere to the acceptable standard of behavior and recognize diversity and respect the cultural differences, values and beliefs of others, including fellow students and staff members. Staff members should also professionally treat the students with understanding, dignity, and respect.

3.2. Attendance: Students are expected to attend the practical sessions and lectures. The attendance requirements and the excused absence from classes and examination are covered in the Faculty of Pharmacy Standard procedures (SP-A001 – Excused Absence from Examinations/Classes/ Laboratories). Failure to meet the attendance requirement in a course will prevent the student from sitting for the final examination of that course. Disruptive behavior, talking without permission, or using mobile phones by students during lectures or laboratory sessions are usually not tolerated, and offenders will be disciplined.

3.3. Assessment: Students are responsible for all the course materials covered during the lectures and laboratory sessions, printed materials provided by the instructor, or assigned reading materials. Other assessment methods may include, but not limited to, writing an essay, or making a presentation

about an assigned topic. During the examination, and while performing any graded assignment, students should follow the standard procedures for the Faculty of Pharmacy general examination rules (SP-A002 – Examination Regulations), and should refrain from committing any act that fall under academic dishonesty.

3.4. Understanding the requirements: Students should be responsible for seeking the knowledge for the safety requirements while in laboratory sessions to ensure safety of everyone in the laboratory. Also, students should be aware of the relevant Faculty of Pharmacy and Kuwait University policies and procedures concerning, the students' enrollments, progression, graduation, and the use of university facilities.

3.5. Social Media: This include any digital communication platform (e.g. blogs, Facebook, Twitter, Instagram, Snapchat etc.). Students should be reminded with the following points when using social media:

a. When commenting about the University, the Faculty, staff, or students, the students are expected to act according to the values of professionalism, honesty, fairness, trust, accountability and respect, and it is prohibited to use social media to harass, bully or discriminate against any other individual.
b. Students should respect confidentiality of information related to assessments and examinations, clients and patients. This includes providing examples of past assignments and examinations to students in preceding years, or posting information about a quiz or an examination that some of the class still have to sit.
c. Information posted on private social media may become public.
d. Information about classes, examinations, assessment deadlines, etc. posted by students on social media is not necessarily correct and students are expected to obtain their information from a credible source (e.g. the e-learning site for the course).

3.6. E-mail communication and correspondence: Students are expected to check their official University e-mail frequently to remain informed of University/Faculty-related communications. All communications to staff (academic and administrative) must come from a student's Kuwait University e-mail account.

E-mail Etiquette: When a students use an e-mail they should consider the following points:

a. Writing an e-mail to a staff member is like writing a professional letter and students should adopt an appropriate language and style.
b. Once a dialogue has been established, being less formal may be appropriate.
c. Always include your full name and KU ID number.
d. Start and end appropriately as if writing a formal letter e.g. Dear [Title, Surname] and Regards [Your full name].
e. Indicate KU name and issue in the Subject line of the e-mail.
f. Use professional language and clearly state your purpose.
g. Check for punctuation, spelling and grammatical errors.
h. Use capitals when appropriate, do not use SMS style text.
i. Do not expect to have an immediate response to your e-mails all the time.

Student Feedback: Students are usually asked to complete an online teaching evaluation for each instructor in all courses they are registered. The students should fill out these evaluations and write down any comments they might have regarding the course, the instructor, and the course contents. These evaluations are confidential and the students are expected to complete them with honesty, fairness, trust, accountability and respect. The evaluations are important in improving the teaching-learning process and in the promotion of the teaching staff, so students should take part in this continuous evaluation process.

4. Academic Dishonesty

"Academic dishonesty" includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, and any act designed to give unfair academic advantage to the student (such as, but not limited to; submission of essentially the same written assignment for two courses without the prior permission of the instructor, providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment), or the attempt to commit such an act.

4.1. Cheating

The acts of cheating include, but not limited to, all the following:

a. Copying from another student's examination paper. Also, reproducing all or a part of another student's homework, essay, or other written assignment for which a grade will be assigned.
b. Using unauthorized materials such as programmable calculators, smart phones, digital devices, class notes, books, handouts, etc. during an examination.

c. Possession of unauthorized materials or devices during the examination, even if they were not used, is considered attempted or intended cheating.
d. Students failing to comply with the examination rules, where to sit, when to start and when to end an examination, that can lead to academic benefits.
e. Collaborating with or seeking aid from another student during a test or while solving an assignment, when group discussion is not authorized.
f. Discussing the contents of an examination with another student who will be taking the examination at a later time.
g. Revealing the contents of an examination, for the purpose of preserving questions for use by other students, when this is not authorized.
h. Substituting for another person, or permitting another person to substitute for one's self, to take a test or prepare any course-related out- of-class assignment when collaboration is prohibited.
i. Buying, stealing, soliciting access, or paying individuals to obtain any examination related information, homework solution, assignments, or projects.
j. Falsifying data, laboratory reports, and/or other academic work.
k. Misplacing, or damaging the property of the university, if it will lead to unfair academic advantage.
l. Misrepresenting facts, including providing false grades or information, for obtaining an academic or financial benefit.

In case of suspected cheating cases, the case is investigated according to the Faculty of Pharmacy standard procedures; (SP-A003 – Suspicion of cheating during an examination, assay or project). Kuwait University considers cheating, attempted cheating, and intended cheating as similar offenses which, if confirmed, are punished by a severe penalty.

4.2. Plagiarism

"Plagiarism" includes, but is not limited to, obtaining the published or unpublished work of others by any mean, and submitting it as one's own academic work to get credits. It can be avoided by clearly acknowledging the work of others, so the extent of reliance on the other work is clearly indicated. The materials can be directly quoted if it is brief, or clearly cited if it is a summary or a paraphrase of other's work. Also, a student should not submit all or major part of the same work product to be graded in more than one class without the instructor's knowledge.

When Plagiarism is suspected, the case is investigated. If confirmed, the instructor will choose an appropriate penalty depending on the severity of the case.

4.3. Collusion vs. Collaboration

"Collusion" includes, but is not limited to, the unauthorized collaboration with another person, student or non-student, in preparing academic assignments offered for credit or collaboration with another person in any matter that can lead to scholastic dishonesty.

Although collaborative learning and group discussion and interaction are often encouraged outside of class, the instructor may give assignments that should be completed by the students individually or in small group. So, it is the responsibility of the instructor to provide clear instructions on the extent of collaboration that is acceptable, and it is the responsibility of the student to understand and to conform to those instructions.

4.4. Falsifying Academic Records

"Falsifying Academic Records" includes, but is not limited to, the altering or assisting in the altering of grades or other falsification of academic records.

5. Oath of Pharmacy

"I promise to devote myself to a lifetime of service to others through the profession of pharmacy. In fulfilling this vow:

- I will consider the welfare of humanity and relief of suffering my primary concerns.
- I will apply my knowledge, experience, and skills to the best of my ability to assure optimal outcomes for my patients.
- I will respect and protect all personal and health information entrusted to me.
- I will accept the lifelong obligation to improve my professional knowledge and competence.
- I will hold myself and my colleagues to the highest principles of our profession's moral, ethical and legal conduct.
- I will embrace and advocate changes that improve patient care.
- I will utilize my knowledge, skills, experiences, and values to prepare the next generation of pharmacists.

I take these vows voluntarily with the full realization of the responsibility with which I am entrusted by the public."

6. Breach of the Code of Conduct

Any case of breaching the code of conduct by exhibiting behavior which is not consistent with the professionalism guidelines in academic, professional or administrative settings, will be investigated by a committee consists of three faculty members who are involved/aware of the incidence. The committee

prepares a report documenting the details (who, what, when, and where) of the incidence, the student(s) involved, and the course or setting where the incidence happens, and suggests a penalty for the student(s) involved. The report is send to the Dean of the FoP. The Dean, if he deems necessary, may consult with faculty members to choose the appropriate penalty which can range from advice and guidance, verbal warning, written warning, informing the student guardians. In case of serious incidences, or repeated misconduct by the same student the incidence can be reported to Kuwait University misconduct investigation committee (لجنة النظام الجامعي). The report of the incidence is kept in the student file.

7. Pledge and Oath

Upon entering the Faculty of Pharmacy, Kuwait University, each student will be asked to recite and sign the following pledge:

> "As a student of the Faculty of Pharmacy Kuwait University, I have reviewed and understood the Pharmacy Students Code of Conduct. I pledge my full support to this code of Conduct and I will make every effort to follow this code from my first day at the Faculty of Pharmacy."
>
> ---
>
> (Signature)

Faculty of Pharmacy Standard Procedures

1. Excused Absence Policy

a. Excused Absence from Examinations:
Students will be excused from appearing in scheduled (mid-semester/ final) examination only in the following conditions:

- Admission of the student to a governmental hospital as an inpatient, with the authenticated admission document approved by the Unit director and/or hospital director.
- Death of a first-degree family member (father, mother, grandfather, grandmother and siblings) of the student, within three days of the examination date.
- Maternity leaves according to Kuwait University regulations.
- Other extenuating circumstances presented to the Vice-Dean for academic and student affairs and approved by the FoP Student Affair Committee (for midterm examination) or the board of examination and faculty council (for final examination).

A substitute assessment shall be given to students who have an approved excuse for missing the assessment and their actual scored grade will be posted for them. A mark of zero shall be given for any assessment that is missed without proper excuse. Students will be granted FA grade if they fail to appear in the substitute assessment.

Please note:
Medical excuses <u>will not</u> be granted in case of inpatient admission to private hospital, presentation to the emergency room in private or governmental hospital, or presentation to polyclinics.

b. Class/laboratory Absence Policy
Attendance of all laboratory/practice/clinical sessions is mandatory. Students missing a session due to an acceptable excuse will have to repeat this session.

The maximum allowable unexcused absence from lectures in a single course is 20% of the total lecture hours, e.g. a course with 3 lectures/ week;

- A student gets a first warning after being absent for 3 hours;
- A student gets a final warning after being absent for 6 hours;

- A student missing 9 or more unexcused hours will not be allowed to sit for the final examination and will be granted FA grade.

Acceptable excuses are the same as in case of scheduled (mid-semester/final) examinations.

- Excuses due to extenuating circumstances should be approved by the Student Affair Committee.
- Documentation for any excuses should be taken to the Student Affairs Office within three days of return to the class.
- It is up to the course coordinator to decide whether to give a mark of zero for missed assessment without the proper excuse, or to reassess the student by holding oral or written examinations.

2. Examination Regulations

a. Wearing caps and carrying purses are not allowed in the examination and the students will be instructed to remove them before entering the examination hall.
b. Student should bring their updated University Identification card (picture ID) with them to the examination for proper identification by the invigilators.
c. The identity of female students who cover their face (wearing niqab) will be checked by a female invigilator in a private place, before the start of the examination.
d. The students should pack all pens, pencils and other stationaries in a transparent plastic bag/folder, and no opaque pencil cases will be allowed in the examination hall.
e. The students will be allowed 5 min before the start of the examination for writing their names and ID numbers. Students who fail to write their names on the examination paper or answer sheet before the end of the examination will be subjected to disciplinary action by the examination committee.
f. During the examination, students are randomly assigned to seats that are numbered and previously determined for each student. Students should sit according to their assigned seat number and changing seats before or during any exam will not be allowed without approval of the chief invigilator, only in extenuating circumstances.
g. The students are not allowed to leave the examination before 30 minutes of the start of examination time and during the last 15 minutes of the examination.
h. Electronic devices are considered cheating tools and are not allowed

to accompany the student in the examination venue. Students should not be offended if they were inspected before the start of the examination. This may be necessary to ensure that the students do not have any gadgets in the examination hall which can lead to sanctions if discovered after the start of the examination. Devices that are not allowed in the examination hall include, but not limited to:

- recording/playing devices
- mobile phones
- watches with any function other than showing time
- ear pieces and head sets
- pens with any scanning or copying capabilities

i. The model of the calculators used during the examination should comply with the model specified by the course coordinator (if certain specifications are required). Programmable calculators are not permitted in any examination, and sharing calculators by students during the examination is not permitted.

j. Official records of attendance in all exams are required to be taken by the invigilators and be kept by the course coordinator. The students are required to sign against their names in ink on these attendance sheets.

k. Students should not communicate with anyone except an invigilator during an examination.

l. Students may be allowed to ask questions regarding the exam materials. This is allowed at the discretion of the course coordinator.

m. Students should not leave their seats during the examination without permission of an invigilator.

n. Breaking the examination rules will be investigated immediately after the end of examination.

o. Open Book Examinations:

- Some open-book examinations do not have any restrictions on printed materials that students can bring to the examination venue with them (e.g. Pharmacology and Therapeutics examinations in the fourth and fifth years).
- Some other open-book examinations have restrictions for the course materials the students can bring to the examination (e.g. the practical Pharmacy Practice classes in the 3rd, 4th, and 5th years allow the use of BNF during the examination, but no additional information should be written in the BNF that will be used during the examination). In these practical Pharmacy Practice examinations, the BNF will be randomly checked early

during the examination and copies that do not comply with the instructions will be confiscated and clean BNF copies may not be available to give to the students.
- Student should confirm what is allowed and what is not allowed during each open-book examination.

p. Using the bathroom:
- During examinations, students will not be allowed to go the bathroom during the first and the last 30 minutes of the examination.
- Students who go to the bathroom should sign their names in a list provided by the invigilator, and students will not be allowed to go to the bathroom more than once in a given examination, except if they have previously documented medical condition (e.g. diabetes, pregnancy, etc.).
- Students may be inspected before or after going to the bathroom to check for items left in their pockets.

q. Cheating, attempted cheating, and intended cheating
- Kuwait University regulations treat actual cheating, trying to cheat, or having the intention to cheat as equal offenses, which have one severe penalty.
- This mean that copying information from unauthorized course materials to the examination paper during the examination is equally treated as having course materials in possession of the student even without trying to use them.
- According to Kuwait University and the HSC regulations, after investigation of cheating cases, students found guilty of cheating, attempted cheating, or intended cheating will be granted a grade of " F " in all courses of the semester the student is registered in, and the incidence will be recorded in the student file. Students are expelled from the Kuwait University if they are found guilty of cheating, attempted cheating, or intended cheating for a second time.

3. Cheating Procedures

In case of suspected cheating incidences:

a. The invigilator or assessor consults with the chief invigilator, senior assessor or course coordinator before doing any action, unless the evidence can be readily destroyed by the student.

b. If presumption of cheating is judged serious enough, the cheating material is confiscated and the student is not allowed to pursue his/

her evaluation. Care should be taken not to disrupt other students.

c. On the same day of the incident, the chief invigilator writes a report detailing the incident to the Chairman of the relevant department, with a copy to the course coordinator and the Dean. All invigilators present during the incident sign the report. All material relevant to this incident accompanies the report.
d. If the student has other examinations planned, he (she) is allowed to continue with the other examinations.
e. As soon as possible, the department chairman forms a committee composed of the course coordinator and two other faculty members from the department. This committee is responsible to investigate if what was done by the student (ex: material confiscated) is relevant to the assessment and could have helped the student have a better mark in this particular exam. Their report is submitted to the Dean.
f. The Dean, if he deems necessary, convenes the Faculty Examination Committee. The role of this committee is to investigate the incident by meeting with the student(s), invigilators and any other relevant individual, and to come to a clear conclusion. Their conclusion and recommendation is submitted to the Dean.
g. At the same time, the Dean informs the Dean of admissions and registration that the student(s) is under investigation and that no grades should be entered in the students file nor published, considering that if he/she is found guilty, they will get an F in all courses of the semester.
h. Based on the Committee's recommendation, the Dean, if he deems necessary, convenes the Faculty Council to discuss the recommendation of the Faculty Examination Committee and to come to a final conclusion. If a conclusion cannot be reached, the Council tasks the Faculty Examination Committee to continue the investigation. The Council's conclusion is communicated with the Dean of admissions and registration of Kuwait University. If no sanction is given, the Dean of admissions and registration has to be informed to release the grades for the student.
i. If the student is not guilty of cheating, the Faculty takes all necessary actions to complete the examinations process of the student.

4. Dress Code in Clinical and Laboratory Settings

The following regulation was approved by the Vice-President Executive Committee on May 8, 1985 (minute 25/85):

The Faculty of Pharmacy primary concern is for the safety of its students while they are working in its laboratories. The Faculty secondary concern is

to ensure that students dress in a manner that reflects the proper practice of the profession of pharmacy. The Faculty of Pharmacy respects and is sensitive to cultural ideologies of its students but cannot compromise on their safety.

a. Female Uniform
   - A white-front buttoned lab coat must be worn over garments of suitable length, i.e., not dragging on the floor, or hanging above the knee
   - The student's official Faculty of Pharmacy name badge should be attached to the lab coat
   - If a hijab is worn, it must be plain and made of approved material; its design and method of wear should ensure the individual's safety in the Faculty's laboratories
   - Jewelry should be kept to a minimum
   - Fingernails should be kept as short as possible

b. Male Uniform
   - A white front-buttoned lab coat must be worn over trousers, shirt and tie and the student's official Faculty of Pharmacy name badge should be attached to the lab coat
   - Shorts are not allowed in laboratory
   - Fingernails should be kept as short as possible

A student who fails to comply with these regulations will:
- Not be allowed in the faculty's laboratories unless they meet the dress code and the safety requirements
- Be personally advised
- Be given a written warning concerning the consequence of their action that states a specified time in which to comply within
- Be asked to leave the Faculty, a decision which would require approval by the Vice-President's Executive Committee

Governance of Faculty of Pharmacy

The Dean is the chief executive officer of the Faculty of Pharmacy. He is assisted by two Vice-Deans and an Administrative Manager. The Faculty's officers are responsible to the Dean for carrying out the policy decisions of the Faculty Council.

Faculty Council

Mandate:
The Council is responsible for:

1. Planning and implementing issues that improve the teaching and research activities at the faculty.
2. Establishing a faculty policy of student intake
3. Establishing a policy of student transfer with other faculties according to KU guidelines
4. Approving departmental selection nominations of academic staff
5. Approving the promotions of faculty staff
6. Approving departmental scholarship nominations
7. Approving sabbatical leaves for academic staff according to KU guidelines
8. Supervising and following-up faculty committees
9. Approving and posting final student grades at the end of each semester

Composition:

- Dean (Chair)
- Vice-Dean Academic and Student Affairs
- Vice-Dean, Research and Post-Graduate Studies
- Chairmen of the four Departments
- One academic staff from the Faculty nominated to represent the interest of each academic rank; Assistant Professors, Associate Professors, and Professors.
- Two members from outside the University appointed by University Council

Meetings:
The faculty council meets at least once at the end of each semester to approve the final examination results. Additional meetings can be scheduled as needed.

Board of Examiners

Mandates:

1. Making a final decision on the exam grades at the end of each academic semester, after receiving them from the Departments through the Vice-Dean of Academic Affairs
2. Approving the Departmental recommendations for awards of distinction

Composition:

- Dean (Chair)
- Vice-Dean Academic and Student Affairs
- Vice-Dean, Research and Post-Graduate Studies
- Chairmen of the four Departments

Meetings:

Board of Examiners shall meet at the end of each semester, except summer semester, after the final computation of students' marks for each course.

Dean's Executive Committee

Mandates:

1. General management of the FoP for issues regarding research, academic programs, human resources, organizational structure, etc...
2. Developing yearly strategic plans and a scoreboard with relevant indicators
3. Meeting with committee chairs or working group leaders as appropriate
4. Providing action plans to requests from KU administration

Composition:

- Dean (Chair)
- Vice-Dean Academic and Student Affairs
- Vice-Dean, Research and Post-Graduate Studies
- Chairmen of the four Departments
- Director of the OCST
- Administrative Manager
- Head of Public Relations

Meeting:

The Committee shall meet every two weeks, except during July-August period, or at a call of the Chair.

Faculty Selection Committee

Mandate:

1. Approving contract renewals of academic and support staff
2. Discussing and defining the faculty needs with regard to recruitment of new academic and support staff
3. Renewal process of departmental chairmanship or appointment of new departmental chair
4. Reviewing new applications for advertised positions and recommendations from the departmental committees

Composition:

- Dean (Chair)
- Vice-Dean Academic and Student Affairs
- Vice-Dean, Research and Post-Graduate Studies
- Chairmen of the four Departments

Faculty Curriculum Committee

Mandate:

1. Reviewing and approving departmental suggestions of existing curricula such as course name, content, sequence and students' assessment
2. Reviewing issues related to new undergraduate and postgraduate curricula

Composition:

- Dean (Chair)
- Vice-Dean Academic and Student Affairs
- Vice-Dean, Research and Post-Graduate Studies
- Chairmen of the four Departments
- Student, KPSS representative
- Graduate student representative

Faculty Examination Committee

Mandate:

1. Supervising the conduction of midterm and final exams
2. Ensuring security of exams
3. Supervising the invigilation process
4. Reviewing policies and taking necessary actions in cases of student cheating or absence according to KU guidelines

Composition:

- Vice-Dean Academic and Student Affairs (Chair)
- Three academic Staff members
- Two non-Academic Staff members (student affairs and service Departments)

Faculty of Pharmacy Research Committee

Mandate:

1. Processing and follow-up of all research proposals
2. Communications between the department research committee, PI and Research Sector (RS) at KU through VDPR
3. Discussing and suggesting amendments to PI for his/her proposal before forwarding it for processing and refereeing.
4. Providing the RS with necessary information, if needed, regarding the refereeing process of proposal
5. Coordination with RS in refereeing and evaluating periodic and final reports of research projects not exceeding KD 4000
6. Cooperating with RS in planning and implementing research related activities
7. Identifying the faculty research priorities in consultation with RS

Composition:

- Vice-Dean, Research and Post-Graduate Studies (Chair)
- Four representatives from the four departments (minimum Associate Prof.)

Faculty Scholarship Committee

Mandate:

1. Making decisions regarding scholarship applicants selected by department scholarship committee
2. Making decisions regarding future needs of faculty scholarships based on departmental needs

Composition:

- Dean (Chair)
- Vice-Dean Academic and Student Affairs
- Chairmen of the four Departments

Faculty Postgraduate Studies Committee

Mandate:

1. Implementing all CGS procedures for admission and selection of postgraduate students
2. Communication with CGS for preparation of timetables for student lectures and exams
3. Periodic review of postgraduate program (M.Pharm. Sci) at the Faculty
4. Dissemination of information about the program to encourage application to postgraduate studies
5. Interviewing new candidates for the postgraduate programs

Composition:

- Vice-Dean, Research and Post-Graduate Studies (Chair)
- Three representatives from the different Departments

Faculty Student Affairs Committee

Mandate:

1. Reviewing the rules for acceptable excuses from lectures and labs
2. Preparing teaching and examination timetables
3. Recommending appropriate action in case of student misconduct
4. Reviewing the rules for admission and transfer to the Faculty
5. Dealing with any student request regarding admission and progression

Composition:

- Vice-Dean Academic and Student Affairs (Chair)
- Three academic Staff members
- Student Representative
- Non-Academic staff member

Student-Faculty Joint Committee

Mandate:

1. Analyzing issues and requests coming from the students regarding the Faculty or from the Faculty regarding students.
2. Proposing solutions to the appropriate body for review and implementation: the DEC for student issues and to KPSS for Faculty issues.

Composition:

- Vice-Dean Academic and Student Affairs (Chair)

- Three academic Staff members
- Four Students representing 2nd, 3rd, 4th, and 5th year students, and nominated by the KPSS.

Other Committees

- Faculty Promotion Committee
- Faculty Publication Committee
- PharmD program Committee
- Faculty Strategic Plan Follow Up Committee
- Faculty Budget Committee
- Faculty Safety Committee
- Faculty Quality Assurance and Assessment Committee (to be created)
- Pharm.D. Implementation Committee
- The Office of Consultations, Studies and Training (OCST) Board
- Continuing Professional Development Committee
- Departments Committees

Student Services

A. HSC Library

The Library is located on the First Floor of Abdulmohsen Al-Abulrazzak HSC. This library seeks to facilitate information flow in support of education, research and patient care; provide health-related information to health professionals, researchers, and students in Kuwait and the Gulf. The library offers, in addition to its open stack collection, a reserve collection, current periodicals, newspapers, government publications and microfilm collections. Reference staff provides instruction and assistance.

Hours of Operation:

The following hours apply when classes are in session and during officially scheduled examination periods. Special schedules may be posted for holidays and between semesters.

Academic Semester:	
Sunday - Thursday	8:00 am – 9:00 pm
Friday and Saturday	8:00 am – 9:00 pm [Third floor only]
Semester Break:	
Sunday – Thursday	8:00 am – 2:00 pm 4:00 pm – 9:00 pm
Holy Month of Ramadan:	
Sunday - Thursday	9:00 am – 1:30 pm 8:00 pm – 12:00 midnight
Saturday	9:30 am – 1:30 pm

An Overview of the Library Collections:

HSC Library collects materials on clinical and basic research topics in support of University's teaching and research programs in the health sciences.

Periodicals:

HSC Library currently subscribes to approximately 1,300 periodicals. These are located in the second floor of the library and arranged alphabetically by title. Periodicals are non-circulating. Current issues of selected titles are located in the current periodical display area. A list of current subscriptions is available at the Reference Desk.

New Resources:
HSC Library receives several regional and national newspapers. These are kept in the alcove near the current periodical display area.

Books:
HSC Library contains over 11,000 book titles. Books are arranged by call number and are located in Room 5. New books are shelved on the carousels beside the Circulation Desk.

Microfilms:
HSC Library has 250 periodical titles on microfilm. Microfilm reader/printers are available in Room 9.

Reserve Collection:
The reserve collection is located in Room 5. It includes materials designated by faculty members for use in courses and frequently used core texts.

Reference Collection:
The Reference Collection provides quick information in the form of indexes, almanacs, directories, handbooks and numerous guides to bibliographic sources. This collection is located adjacent to the Reference Desk in Room 5 and is available for on-site use only. Materials are arranged by category and therein by call number.

Audiovisual Materials:
Videocassettes, slides, laser discs and other audiovisual materials are stored in Room 3. This 1100-item collection is available for on-site viewing or for loan to library members.

Electronic Searching:
This is available on site or via or via HSC Home Page.

Membership:
Library cards are issued upon presenting a photocopy of a valid Civil ID card and two passport-size photographs. Cards are available to the following:

- HSC Faculty, staff and students
- Health care professionals. There is a deposit of KD 40 for Ministry of Health employees and KD 80 for private sectors employees

Borrowing Privileges and Responsibilities:
Library cardholders are entitled to the following borrowing privileges:

- Kuwait University and Faculty Staff: A maximum of ten books may be borrowed for one month. Materials may be renewed twice, unless items are required for another user.
- Health Care Professionals Employed in Kuwait: A maximum number of three books may be borrowed for one month. Materials may be renewed twice, unless items are required for another user.
- Reserved materials may circulate for two working hours or overnight on weekends. Only one reserved item may be borrowed at a time.
- Library users may borrow a copy of non-original audio-visual materials. Up to three items may be borrowed for a period of 3 days.
- To ensure prompt return, fines are charged on overdue materials at the rate of KD 0.100 per day to a maximum of KD 5.000. Borrowers should report lost materials promptly to avoid additional fine charges. The borrower who loses the material is billed for the replacement cost of the item(s) plus a processing charge.

Remote Access of Electronic Journals and Database:

- HSC Library Web Page allows access to various electronic database related to pharmacy such as Micromedex Healthcare, Ovid, Clinical Pharmacology, MD Consult, Science Direct, Merck Index, IPA, Cochrane Library, EMBASE, Medline, and ChemOffice Ultra. In addition, HSC Library provides access to several e-books that are relevant to pharmacy education including British Pharmacopoeia, basic calculations in pharmacy, and clinical toxicology.
- All Faculty staff and students have remote access (off-campus access) to all the library catalog resources.

Training for effective use of HSC Library Facilities:
HSC Library provides in-place programs, orientations, and sessions to teach students, faculty and preceptor the use of library services. In addition, the library has scheduled training sessions for educational database such as Ovid, Micromedex, Silverplatter, and Internet public access catalog at least once a week. Also, the library can offer non-scheduled training on:

- Search to locate particular material, Pharmacy Database (e.g., Clinical Pharmacology, Micromedex), and Pharmacy Reference Books (e.g., British Pharmacopoeia, Martindale).
- Accessing Electronic Journals and Books (e.g., Physician Desk

Reference, Kuwait Drug Index, Kuwait National Formulary).
- Search and use of the Internet for pharmacy related websites

For more information on HSC Library services and facilities, please visit the following site: http://horizon.hsc.edu.kw/library/

B. HSC Computer Center

The HSC Computer Center supports the use of computing and information technology by faculty and students to further the teaching and research goals of the University. The Center's main objective is directed toward the automation of the HSC activities and operations. The Computer Center has been relocated in the basement of the HSC Building. Computer and internet services are provided through a local area network (LAN) which links all offices. The center is a registered in Internet site. The HSC Computer Center website can be consulted for more information.

C. Medical Photography and Illustration Unit

The Medical Photography and Illustration Unit is located in the First Floor of the HSC (FoM Building). The Unit provides illustration and Photography services to HSC faculty for teaching, research and professional meetings. Its services include:

- Photography
  - Flat artwork and book copy
  - X-rays, auto-radiograms and gels
  - Portraits, groups and composites
  - Location shots for newsletters, journals and lectures
  - Surgeries
  - Pathological specimens
  - Patients
- Illustration
  - Black & white/color slide processing and mounting
  - Computer-generated slides (PowerPoint forms)
  - Slide duplication
  - SVHS video recording of lectures, surgical operations, experiments and patients (for teaching purposes)
  - Conversion of video recordings from NTSC to PAL format
  - Production of poster titles

Users are requested to submit their work orders 7-10 days in advance with a completed request form available in the Unit. Students must have their requests from pre-authorized by their faculty supervisors.

Information Sheet

Faculty of Pharmacy
Abdulmohsen Al-Abdulrazzak Health Sciences Center
Kuwait University
P.O. Box 24923, Safat 13110
Jabriya, Kuwait
Tel: (+965) 246-36668
Fax: (+965) 253428907
Website: www.hsc.edu.kw/fop
Instagram: @faculty_of_pharmacykw

Offices' Telephone Numbers:
[Jabriya Operator: 2498-8888]

Office:	Ext.:
Dean	36137/36891/36668
Vice-Dean for Academic & Student Affairs	36916/36917
Vice-Dean for Research & Postgraduate Studies	36771/36625
Department of Pharmacology & Therapeutics	36040/36076
Department of Pharmaceutical Chemistry	36158/36055
Department of Pharmaceutics	36072/36066
Department of Pharmacy Practice	36075/36254
Administrative Manager	36618/36136
Supervisor	36165/36081
Chief Technicians	36175/36842
Finance	36053/36225/36921
Student Affairs	36647/36880/36178/36902
Academic Staff Affairs	36890/36894
Personnel	36266/36619/36498
Services & Follow-up	36886/36077/36393

For more information, please contact:

Noor Al-Saffar
Public Relations Department
Tel: 246-36496
E-mail: noor.alsaffar@ku.edu.kw

Academic Calendar 2021-2022

Semester 1	
Event:	**Date:**
Teaching	Sunday 10-10-2021 - Thursday 10-2-2022
Mid-semester break	Sunday 13-2-2022 – Thursday 3-3-2022

Semester 2	
Event:	**Date:**
First day of 2nd semester	Sunday 6-3-2022
Teaching	Sunday 6-3-2022- Thursday 30-6-2022
Eid Break	Sunday 1-5-2022-Tuesday 3-5-2022
Board of Examiners meeting	Tuesday 5-7-2022
Faculty Council meeting	Wednesday 6-7-2022
Resit exams (2021-2022 - 2nd semester)	Sunday 28-8-2022 - Thursday 1-9-2022