

#### **COLLEGE OF PHARMACY**

# DOCTOR OF PHARMACY (PharmD)

# STUDENT HANDBOOK

A Y 2016 - 2017



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#### Introduction

Pharm D Student Handbook is meant to provide information and guidelines on the various services and the Pharm D program offered by the College of Pharmacy (CoP) at GMU. It contains sections covering the admission procedure, general rules and regulations, student support services, plan of study, course descriptions, details of grading, assessment & progression policies. Each section has been listed in the contents so that you can refer quickly to the areas of particular interest to you. Please note that attendance in various courses offered by the college is mandatory and this has been repeatedly emphasized in the handbook. Every effort has been made to provide accurate and up to date information. Additional information useful to students will be regularly displayed on the college notice board. Students are also advised to get in touch with course instructors on any academic issues.

We hope that the handbook will help and guide you during the new academic year at CoP.

#### **GMU Vision**

The Vision of the Gulf Medical University is to be a leading contributor to the continuous improvement of the nation's health care delivery system through the pursuit of excellence in medical education, biomedical research and health care services.

The University aspires to provide a unique learning experience of high quality to our students and produce graduates whose competence will help them to make a significant contribution to the health of the community through pursuit of academia, research and health care.

The University aspires to **attract the best of students** by offering a variety of excellent programs supported by quality administration and student support services.

The University aspires to be **known for excellence and impact of its research** on the educational milieu of the nation and the outcomes of clinical care.

The University aspires to be **an integral part of the community** through transfer of knowledge, continuous dialogue with the country's health care planners and enhanced community service.

#### **GMU Mission**

It is the Mission of the Gulf Medical University to strengthen and promote excellence in medical education, biomedical research and patient care.

GMU is committed to **prepare a highly skilled health workforce** made up of health care professionals, health management and support workers and health science investigators in order to meet the health care needs of the nation and the region.

GMU will strive to **produce health care professionals** who will integrate the advances in research with the best clinical practices.

GMU will **promote health services**, which incorporate the latest advances in scientific knowledge in a manner that supports education and research for the benefit of the community.

#### From the President's Desk



Dear Students,

We are happy to welcome you to the portals of the **Gulf Medical University** where students from over 75 nations and faculty and staff from over 22 nations imprint their presence.

The **Gulf Medical University** is now one among the region's leading private universities. GMU offers undergraduate, post graduate and a plethora of short courses for which you have chosen to create for yourself an education that is right for you.

As you begin this journey that will stretch your mind and shape of who you will become, we encourage you to go forth in a spirit of exploration. This is your chance to utilize and make use of the rich variety of GMU's intellectual opportunities available to you.

I am grateful to the Almighty Allah for the remarkable development the **Gulf Medical University** has undergone in the last 18 years, wherein the University has been able to make its mark in Medical Education, Healthcare and Research. We aspire to be among the best in the region, and we're making it happen right now. We have embarked on a journey of transforming GMU to a research based University in the coming years.

The **Gulf Medical University** has currently undertaken a major exercise to modernize its facilities to keep itself abreast in the field of Medical Education by its innovative approach to medical education, use of latest IT infrastructure and advance research facilities.

The **THUMBAY Network of Teaching Hospitals** is one among the Clinical Training sites for the students of the Gulf Medical University and is now expanding rapidly with new hospitals in Ajman, Sharjah and Qatar being added to enhance the clinical training facilities available to students of the Gulf Medical University. The **Center for Advanced Biomedical Research and Innovation (CABRI)** and the **Center for Advanced Simulation in Healthcare (CASH)** under the Gulf Medical University have now become centers of excellence in a short span of time.

The coming years will be an exciting time of phenomenal intellectual, and personal growth and development for you and I now end by taking this opportunity to wish you a very fruitful and fulfilling journey of intellectual discovery and innovation accompanied with true growth in moral and intellectual faculties, refined social and personal conduct.

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Thumbay Moideen
Founder President - GMU Board of Governors

#### Welcome Note from the Provost



#### Dear Students,

I welcome you all once again to our growing community of learners made up of future Physicians, Dentists, Pharmacists, Physiotherapists, Nurses, Laboratory, Radiology and Anesthesia & Surgical Technologists, and Biomedical Scientists!

Do not forget as you complete your studies you will be joining a global health workforce that will be required to deliver optimal health services in the workplace. Today, it is not enough to know your own responsibilities and roles but also that of each member of your healthcare delivery team.

Interprofessional education uses a collaborative approach to develop the healthcare students as future interprofessional teams. This year your Colleges are making a concerted effort to increase opportunities for inter-professional education and collaborative practice readiness.

You will not only develop clinical skills in your own professional area but also values, ethics, and interpersonal communication skills that will help you to respect the roles of each health professional as you learn with, from, and about each other.

Remember effective teamwork facilitates collective learning!! You are also laying down a shared foundation for education and clinical practice that will go a long way to strengthen the health systems of the nations and improve the health outcomes of the community that you will be serving!!!

Prof. Gita Ashok Raj, MBBS, MD, MNAMS

**Provost, Gulf Medical University** 

Dehor las

#### Message from the Dean, College of Pharmacy



#### Welcome to the College of Pharmacy.

The College of Pharmacy, Ajman has been a distinctive and outstanding leader in the academic and professional evolution of the pharmacy profession in the UAE. Since its inception 8 years ago, the college has made great strides in innovation and excellence in pharmacy education. The Pharm. D program, the first of its kind in the UAE, leads to the Doctor of Pharmacy degree and prepares graduates for careers in a variety of areas. With its dedicated team of well accomplished faculty, possessing a strong background in academics and research, you can be assured that your academic journey will be well-nurtured. Our graduates are emphasized on the need to be proficient in providing effective pharmaceutical care to all patients.

Dear students, you have chosen an exciting profession with a myriad of career opportunities. You must work hard right from the start to build up skills and experiences that will set you apart from other graduates of pharmacy. Your personal professional development is important regardless of the career path that you decide to pursue and involves a serious commitment to life-long learning. I encourage you students to discover all this great profession has to offer.

A warm welcome and wish you all success.

M

Prof. Arun Shirwaikar Dean – College of Pharmacy

#### **About the Student Handbook**

This handbook is a source of important information regarding Gulf Medical University (GMU) policies, regulations, rules, procedures and facilities which will be very useful to Pharm D students during their studies. The material contained herein is a supplement to the Catalog and other information distributed to the Pharm D students by GMU.

Every effort has been made to provide students with complete and accurate information. The University reserves the right to change program requirements and to modify, amend or revoke any rule/s, regulation/s and / or financial schedules. However, the information published in this handbook shall be valid for the academic year for which it is published.

### **ACADEMIC CALENDAR**

#### 1.0 Academic Calendar

2016	Day	Events		
FALL SEMESTER				
Jul 24	Sun	Last day for payment of tuition and all other fees for all returning students		
Aug 24 & Aug 25	Wed & Thu	Orientation to New Students		
		Fall Semester begins		
		Reopening for returning II year 3 <sup>rd</sup> Semester students		
Aug 28	Sun	Reopening for returning III year 5 <sup>th</sup> Semester students		
7.108.20	34	Reopening for returning IV year 7 <sup>th</sup> Semester students		
		Reopening for returning V year 9 <sup>th</sup> Semester students		
Sep 10	Sat	Arafa Day Holiday		
Sep 11 & 12	Sun & Mon	*Eid Al Adha Holidays		
Sep 15	Thu	End of Add or Drop Period		
Sep 29	Thu	White Coat Ceremony		
Oct 02	Sun	*Islamic New Year Holiday		
Oct 16	Sun	Mid Semester Examination for the 1 <sup>st</sup> , 3 <sup>rd</sup> , 5 <sup>th</sup> , 7 <sup>th</sup> & 9 <sup>th</sup> Semester Pharm D Students begins		
Nov 09 & 10	Wed & Thu	GMU Annual Scientific Meeting		
Nov 30	Wed	Martyr's Day Holiday		
Dec 02	Fri	National Day Holiday		
Dec 11	Sun	*Al Moulid Al Nabawi Holiday		
Dec 11 – 29	Sun – Thu	Fall Semester Break for the 1 <sup>st</sup> , 3 <sup>rd</sup> , 5 <sup>th</sup> , 7 <sup>th</sup> & 9 <sup>th</sup> Semester Pharm D Students		
2017				
Jan 01	Sun	New Year Holiday		
Jan 02	Mon	End Semester Examinations for the 1 <sup>st</sup> , 3 <sup>rd</sup> , 5 <sup>th</sup> , 7 <sup>th</sup> & 9 <sup>th</sup> Semester Pharm D Students begins		
Jan 15 - 26	Sun – Thu	GMU Semester Break for the 1 <sup>st</sup> , 3 <sup>rd</sup> , 5 <sup>th</sup> , 7 <sup>th</sup> & 9 <sup>th</sup> Semester Students		
Jan 25	Wed	Announcement of Grades for the 1 <sup>st</sup> , 3 <sup>rd</sup> , 5 <sup>th</sup> , 7 <sup>th</sup> & 9 <sup>th</sup> Semester Pharm D		

#### **SPRING SEMESTER**

Jan 29	Sun	Spring Semester begin for the 2 <sup>nd</sup> , 4 <sup>th</sup> , 6 <sup>th</sup> & 8 <sup>th</sup> Semester Pharm D students Commencement of APPE Training
Feb 16	Thu	End of Add or Drop Period
Mar 02	Thu	Annual Sports Day
Mar 10	Fri	GMU Global Day
Mar 11	Sat	GMU Literary Day
Mar 19	Sun	Mid Semester Examinations for the 2 <sup>nd</sup> , 4 <sup>th</sup> , 6 <sup>th</sup> & 8 <sup>th</sup> Semester Pharm D Students begins
Mar 26 – Apr 06	Sun - Thu	Spring Semester Break for the 2 <sup>nd</sup> , 4 <sup>th</sup> , 6 <sup>th</sup> & 8 <sup>th</sup> Semester Pharm D Students
Apr 24	Mon	*Israa Al Mihraj Holiday
May 27	Sat	*Holy month of Ramadan Starts
May 28	Sun	End Semester Examinations for the 2 <sup>nd</sup> , 4 <sup>th</sup> , 6 <sup>th</sup> & 8 <sup>th</sup> Semester Pharm D Students begins
Jun 25 – 27	Sun – Tue	*Eid Al Fitr Holiday
Jun 29	Thu	Announcement of Grades for the 2 <sup>nd</sup> , 4 <sup>th</sup> , 6 <sup>th</sup> & 8 <sup>th</sup> Semester
July 31	Mon	Last working day for the Academic Year 2016 - 17
Aug 01 – Sep 03	Tue – Sun	Summer Vacation & Eid Al Adha Holidays
Sep 04	Mon	First working day for the Academic Year 2017 - 18
Sep 06 & 07	Wed & Thu	Orientation to New Students
Sep 10	Sun	Fall Semester begins for the Academic Year 2017 - 18

<sup>\*</sup> Islamic holidays are determined after sighting the moon. Thus actual dates of holidays may not coincide with the dates in this calendar.

<sup>\*\*</sup>All tuition and other fess are subject to revision by Gulf Medical University's Board of Governors in accordance with University requirements. Every year, fees are reviewed and subject to revision. As and when fees are revised, the new fees will be applicable to all enrolled and new students. The amount shown in this document represent fees as currently approved.

# UNIVERSITY DIVISIONS & ACADEMIC PROGRAMS

#### 2.0 University Divisions and Academic Programs

The University has six academic divisions offering following degree and non-degree programs in the current academic year.

#### College of Medicine (CoM)

- Bachelor of Medicine & Bachelor of Surgery [MBBS]
- Bachelor of Biomedical Sciences [BBMS]

#### College of Pharmacy (CoP)

• Doctor of Pharmacy [Pharm D]

#### College of Dentistry (CoD)

• Doctor of Dental Medicine [DMD]

#### College of Allied Health Sciences (CoAHS)

- Bachelor of Physiotherapy [BPT]
- Bachelor of Health Sciences Medical Laboratory Sciences [BHS–MLS]
- Bachelor of Health Sciences Medical Imaging Sciences [BHS–MIS]
- Bachelor of Health Sciences Anesthesia & Surgical Technology [BHS-AST]
- Bachelor of Health Sciences Nursing Sciences [BHS–NS]

#### College of Graduate Studies (CoGS)

- Master of Science in Clinical Pathology [MS CP]
- Master in Public Health [MPH]
- Master in Toxicology [M Tox]
- Diploma in Toxicology [Dip Tox]
- Masters in Human Reproductive Biology [MHRB]
- Master of Physical Therapy [MPT]

#### Center for Continuing Education and Community Outreach (CCE&CO)

Non degree programs\*

<sup>\*</sup> Refer GMU website www.gmu.ac.ae

## LICENSE & RECOGNITION

#### 3.0 License & Recognition

Gulf Medical University is a Commission for Academic Accreditation (CAA) licensed; Private, Higher Education Institute located in Ajman the Northern Emirates of UAE offering Bachelor and Master level programs in Medicine and Allied Health Sciences. All programs offered by the Gulf Medical University have received initial accreditation from the Commission for Academic Accreditation, Ministry of Higher Education & Scientific Research (CAA, MOHE&SR), Abu Dhabi, UAE.

SI. No	Program	Date of Initial Accreditation (DD/MM/YY)
1	Bachelor of Medicine & Bachelor of Surgery (MBBS)	20/06/2004, 2008
2	Bachelor of Physiotherapy (BPT)	14/06/2005, 2010
3	Doctor of Pharmacy (PharmD)	01/08/2008
4	Doctor of Dental Medicine (DMD)	01/09/2008, 2014
5	Master of Science in Clinical Pathology (MS CP)	01/01/2009
6	Master in Public Health (MPH)	01/07/2010
7	Master in Toxicology (M Tox)	01/07/2010
8	Diploma in Toxicology (Dip Tox)	01/07/2010
9	Masters in Human Reproductive Biology (MHRB)	01/12/2012
10	Master of Physical Therapy (MPT)	01/03/2013
11	Bachelor of Biomedical Sciences (BBMS)	01/10/2013
12	Bachelor of Health Sciences – Medical Laboratory Sciences (BHS – MLS)	01/06/2014
13	Bachelor of Health Sciences – Medical Imaging Sciences (BHS – MIS)	01/06/2014
14	Bachelor of Health Sciences – Anesthesia & Surgical Technology (BHS – AST)	01/06/2014
15	Bachelor of Health Sciences – Nursing Sciences (BHS – NS)	01/06/2014

Gulf Medical University is listed in the WHO World Directory of Medical Schools and in the Health Professions Education Directory, Eastern Mediterranean Regional Office (EMRO), WHO website http://www.emro.who.int/hped.

Gulf Medical University is listed as an accredited / recognized medical school in the International Medical Education Directory (IMED) published by Foundation of Advancement of International Medical Education and Research (FAIMER) at the website. http://imed.ecfmg.org.

**THE CAMPUS** 

#### 4.0 The Campus

The Gulf Medical University is located in the Al Jurf area in the Northern Emirate of Ajman on a vast stretch of land extending up to a 100,000 sq.mtrs and a built area of 200,000 sq.fts. It has laboratories, classrooms and administration buildings, a stand-alone building that houses the Library and the modern Multimedia centers, Coffee Shoppe – Blends & Brews, The Terrace - Multi-cuisine Restaurant and a Sports Complex with courts for Lawn Tennis, Basketball, Volleyball, Badminton, Squash, Table Tennis and lush green ground for Cricket and Football. The vacant grounds have been earmarked for the future multispecialty hospital, the residence halls for students and living quarters for the staff and faculty members.

The GMU Campus has modern facilities including classrooms equipped with audio visual aids, laboratories with modern equipment embracing advanced technologies and a learning center that is appropriately equipped with up-to-date instructional and educational aids. GMU encourages social, cultural, other extra-curricular activities and sports to enhance a comprehensive personality development. The spacious campus spotted with greenery contains student rest rooms, prayer halls, indoor and outdoor sports facilities, first aid clinic, Mosque and students' car parking. The facilities are well connected with each other making it easy for students to move from one area to another.

The **Center for Advanced Biomedical Research and Innovation (CABRI)** has been established to organize, coordinate and enhance ongoing research activities at the Gulf Medical University. The primary objective of the Centre is to plan, promote, support and conduct short and long-term collaborative intramural and extramural research projects of relevance to the UAE in focused areas in medicine and allied health sciences.

A new Innovation Center scheduled to open in the Fall 2016 as part of CABRI is being developed at the Gulf Medical University to enhance a culture that will encourage innovation and serve a point of contact for scientists, faculty and students interested in medical research besides launching innovative product services. The center aims to offer a platform for healthcare researchers, biomedical innovators and medical scientists in the region. It will be the first of its kind in the region and will have dedicated state-of-the-art laboratories for Gene Editing, Next Generation Sequencing (NGS), 3D Printing, Pharma Product Development (PDLs), Bio Innovation Incubators, Health Robotics and Artificial Intelligence. The Innovation Center will enhance research in the strategic areas of Research, Education and Service at the Gulf Medical University.

The **Center for Advanced Simulation in Healthcare (CASH)** is a multidisciplinary educational facility that provides a high-tech simulated and virtually created hospital set-up for clinical and communication skills teaching and training for all healthcare professionals with an emphasis on developing individual and teamwork skills and professional behaviors in an active learning environment using standardized real life scenarios.

The Thumbay Hospital, Ajman – A GMU Teaching Hospital is located a few miles away on the side of a main arterial road entering Ajman from the neighboring Emirate of Sharjah and currently serves as the teaching hospital for GMU. The affiliated hospitals are located in the different Emirates: Mafraq Hospital in Abu Dhabi (HAAD), Sheikh Khalifa Hospital in Ajman, UAQ Hospital in Umm Al Quwain and Ajman Municipality Public Health Clinics.

Dental clinical training sites include the Super Specialty Dental Center, Thumbay Hospital, Ajman; Thumbay Medical and Dental Specialty Center, Sharjah and the Dental Hospital, Thumbay Hospital, Dubai. The Thumbay Hospital, Fujairah offers a clinical training site for Community Pharmacy.

**LOCATION MAP** 

#### 5.0 Location Map







# PHARM D ADMISSION POLICY, REQUIREMENTS AND PROCEDURES

#### 6.0 Pharm D Admission Policy, Requirements and Procedures

#### 6.1 Policy Statement

Gulf Medical University admits students irrespective of their nationality, gender, or religion, to all the activities and programs offered by the university.

The University stands for the highest moral, ethical and academic standards consistent with the heritage and cultural background of the United Arab Emirates and aspires for national and international recognition of its programs and degrees.

The University sets high standards for previous academic performance to attract students of high caliber to meet and exceed the standards of high retention and low attrition and outstanding academic performance required to fulfill the accreditation standards for every program offered by the University.

#### 6.2 Pharm D Admission Requirements

- 1. Applicants shall meet all admission criteria for entry into the respective programs offered by the University, as laid down in the Standards (2011) published by the Commission for Academic Accreditation (CAA), Ministry of Higher Education & Scientific Research (MOHE&SR), UAE.
- 2. The applicant must have completed a minimum of 12 years of education in school and passed subjects in Physics, Chemistry and Biology in the Higher Secondary examination.
- 3. The applicants from UAE educational system must have secured an aggregate of 80% or above marks as per UAE Secondary School Education Standards.
- 4. The applicants from Non-UAE educational systems must have secured an aggregate equivalent to UAE 80% or above [as per International Grade Conversion Table published by WES].
- 5. Applicants from the Indian sub-continent (India, Pakistan, Sri Lanka & Bangladesh) educational system must have secured an aggregate minimum of 60% or above [First Division] in the Higher Secondary School Examination.
- 6. Students who have pursued their Higher / Senior Secondary School Education as per UK system must have passed at least two of the three science subjects (Physics, Chemistry, Biology) in 'AS' or 'A' levels provided they have passed in all the three subjects in their 'O' level. The minimum grade requirement is two C in 'AS' or 'A' level.
- 7. Applicants from the International Baccalaureate (IB) educational system must have a score of 28 points or above provided they have passed all the three science subjects in Grade 10 and advised to take SAT Physics with a minimum score of 550.
- 8. Applicants with an American Diploma must have a score of 85% or above provided they have scored a minimum of 550 in Biology Molecular (Biology-M), Physics and Mathematics in the SAT II examination.

- 9. All UAE Nationals who are graduates of the National Service Program shall be treated equal to the High School Graduates in the year in which they have graduated the National Service Program.
- 10. All applicants must complete 17 years of age on or before the 31<sup>st</sup> of December in the year of admission and shall not be more than 28 years of age.
- 11. The applicant must have proficiency in spoken and written English. The applicant must have passed the English language proficiency test such as TOEFL, IELTS, PTE Academic or Cambridge ESOL. A minimum score of 550 TOEFL (CBT 183, iBT 65), IELTS Academic 5.5, PTE A (36-44), Cambridge ESOL (41) or any other standardized internationally recognized test approved by the Commission for Academic Accreditation (CAA), Ministry of Higher Education & Scientific Research (MOHE&SR), UAE.
- 12. The applicants from Arabic educational system must have completed a Medical Terminology course before they enter into any Undergraduate program offered by GMU.
- 13. The applicant will be required to appear for a written Multiple Choice Questions (MCQs) test followed by a personal interview before the GMU Admissions Committee.
- 14. The Admissions Committee shall evaluate all applicants for both cognitive and non-cognitive traits demonstrating their aptitude for the chosen area of study.

#### 6.2.1 Documents Required at the Time of Submitting Application for Pharm D Admission

- Application Form dully filled by the applicant.
- Attested copy of Higher Secondary / Senior Secondary School transcripts (students who studied in UAE must submit Grade 10, 11 & 12 transcripts).
- Original Score card / Report of English Language Proficiency Test of not more than two years (TOEFL / IELTS Academic / PTE A / Cambridge ESOL) validity.
- Applicant from the United Arab Emirates shall submit a copy of the Emirates ID.
- Applicant shall submit a copy of the Equivalency Certificate of Higher Secondary school (Applicant who have passed Grade 12 from the UAE Educational System are exempted and are not required to submit the equivalency certificate). Applicants from outside UAE are required to obtain Equivalency Certificate of Higher Secondary school from the Ministry of Education, UAE.
- Applicant shall submit a copy of a Good Conduct Certificate.
- A True copy of the applicant's passport with 6 months or more validity.
- Fifteen recent passport-size [35 mm wide by 45 mm high] colour photographs of self.
- All applicants from Iraq shall submit a letter from Iraqi Embassy, UAE certifying the authenticity of the Iraqi curriculum studied.
- In addition, the transfer students shall submit the following documents:
  - 1. True copy of transcripts from the institution/ s, university / ies that the student previously attended.

2. Detailed Course Curricula including course learning objectives and course learning outcomes, credits, duration, semester, contact hours & credit hours for all courses of the program.

#### 6.2.2 Documents Required After Admission

- Every student is required to submit a self-attested photocopy of a valid passport and page showing a valid visa (GCC nationals are exempted from submitting copy of the stamped visa page. However, they shall submit self-attested copy of their National ID).
- Every student is required to submit all academic documents and official transcripts / credits / grades / marks duly attested by the Ministry of Education, UAE and Ministry of Foreign Affairs, UAE or UAE Embassy in their country on admission into the program.
- Every student is required to submit a self attested photocopy of the Emirates ID within 2 months from the date of admission.
- Every student of Indian nationality are required to submit an "Eligibility Certificate" from the Dental Council of India, New Delhi within 2 months from the date of admission.
- Every student is required to submit a Medical Fitness Certificate issued from Thumbay Hospital, Ajman UAE within two weeks from the date of admission.
- Every student is required to submit a written pledge agreeing to comply with all University rules and regulations as amended from time to time.

Non submission of the above mentioned document/s shall be treated as incomplete (conditional) admission and hence the progression of such students may be withheld.

#### **6.3 Admission Process**

This is carried out in several stages:

- 1) Advertisement in the Media: Information in the media shall include details of the colleges of the university programs, admission criteria and the link to the online registration form.
- 2) Scrutiny of Information: The Admissions Committee scrutinizes the credentials of the applicant with reference to the high school education: courses, grades in the qualifying examination and the overall suitability of the applicant for admission into the program. The committee shall also inform the applicant regarding the need for any additional documents that may be required.
- 3) **Short Listing:** Applicants whose credentials have been accepted as adequate by the Admissions Committee are informed about the date and time for a personal interview that would be conducted in Gulf Medical University, Ajman. GMU provides necessary help concerning visa applications for students residing outside UAE.

- 4) **Personal Interview:** The Admissions Committee of GMU shall conduct the personal interview. The committee follows a standard protocol for the interview that will last approximately 45 minutes. The conversation during the interview will be conducted in English. This will be in an informal atmosphere and the applicant will be given ample opportunity to respond to the questions in a relaxed manner. After the personal interview, the Admissions Committee will submit its recommendations to the Provost concerning the suitability of the candidate for admission.
- 5) **Provost Approval:** The Provost of GMU will finalize admissions after studying the recommendations of the Admissions Committee. The decision of the Provost on matters concerning admissions shall be final.
- 6) **Academic Advising:** GMU is committed to provide academic advising in order to advise students in selection and pursuit of academic programs consistent with their life goals and the available opportunities at the university.
- 7) Medical Fitness: Students admitted to GMU are required to submit a Medical Fitness certificate soon after they have registered and enrolled. The Medical Examination for fitness in this connection will be carried out in Thumbay Hospital, Ajman. Testing for antibody titres to infectious diseases is included as part of this process.
- 8) **Enrollment:** Candidates who are finally selected for admission are required (within the time announced on notification of their selection) to submit a letter of acceptance to the Provost, along with the fee in cash or by demand draft in favor of Gulf Medical University, Ajman payable at Ajman, UAE. Failure to comply with this requirement will result in cancellation of the admission.

#### 6.4 Transfer Admissions Policy and Procedures

Students shall be considered for transfer only as per the following Transfer Admissions Policy of the University:

- Only students from a federal or licensed institution in the UAE or a recognized Foreign Institution of higher learning shall be eligible for admission by transfer.
- All transfer students shall meet the English Language proficiency requirements of the program to which they are transferred.
- All transfer students shall submit official transcripts to Admission Department before admission to the Program to which they are transferred.
- All transfer students shall submit official transcripts of credit/s earned from all institution/s of higher education previously attended before admission to the Undergraduate programs applied.
- Only students who are in good academic standing (a minimum cumulative grade point average of 2.0 on a 4.0. scale, or equivalent) for transfer to an Undergraduate program of study similar to that from which the student is transferring shall be considered for admission.

- Students who are not in good standing shall be transferred only to a program in a field different from the one from which the student is transferring.
- The University shall transfer Undergraduate program credits only for courses relevant to the degree that provide equivalent learning outcomes and in which the student earned a grade of B (2.0 on a 4.0 scale) or more.
- The University shall inform applicants for transfer admissions or re-admission of the transfer of credits earned for previous courses.
- The University shall limit transferred credits to less than 50% of the total credits required for the completion of the program.
- The University shall not grant credit(s) twice for substantially the same course taken at two different institutions.
- The University shall allow the transfer of credits for clinical training only when done in the UAE; in exceptional circumstances, in which case, waiver of this condition shall be sought from the CAA, MoHE&SR before admission.

#### 6.5 Transfer within GMU

The students' wishes are taken into consideration when applying to the programs of Gulf Medical University. However, they will be allowed to transfer to one of the other programs available in the university according to established rules based on the recommendations of the Admissions Committee.

#### 6.6 Re-admission

Students who are on leave for a period of one year or more must apply for re-admission to the program through the Admissions Office.

- **Students in Good Standing:** Students who are absent or on approved leaves, must apply for re-admission before they will be permitted to register for the current semester.
- **Students Suspended for Misconduct:** Students who have been rusticated from the university and under probation must apply for readmission and may be readmitted after serving the suspension period.
- Students on academic probation: Students who fail to meet the minimum GPA requirement but have satisfied all the other requirements may be allowed to register as a non-matriculate student for a probationary period. Non matriculated students who achieve a minimum GPA of 2.0 can be readmitted, provided they meet all the other requirements.

#### 6.7 Recognition of Prior Learning (RPL) Policy

This policy shall apply to all GMU qualifications including those on the National Qualifications Framework. Recognition of Prior Learning (RPL) is a method of arrangements [leading to award of credit] that considers whether learners can demonstrate that they can meet the assessment requirements for a unit of knowledge, understanding or skills they already possess and do not need to develop through a course of learning. Also, Recognition of Prior

Learning is the acknowledgement of a person's competencies gained through any or combination of formal or informal training and education, work experience, general life experience.

GMU shall recognize that applicants come to training programs with varying amounts of knowledge, skill and experience that requires to be taken into account when considering how much 'advance standing' Recognition of Prior Learning a person has towards a particular qualification at the time of enrolment. However, relevant and sufficient evidence must be submitted before the RPL process is initiated. The following guidelines must be met before submitting an application for RPL: (1) The candidate must read and understand the course/unit learning outcomes; assess one's existing knowledge and skills for the course/unit to ensure that only relevant and sufficient evidence for each competency is gathered before submission. (2) The evidence will be evaluated on the basis of quality not quantity.

#### **Policy**

The RPL process will be made known to all course participants prior to commencement of a course available in the handbook. The RPL process shall be available for all course participants who wish to apply for the same. This shall be a formal assessment process and a charge shall be levied for the assessment of all RPL portfolios.

#### **Procedure**

- 1. During the enrolment process GMU shall advise all applicants that RPL is available
  - a. Provide information on the RPL process to all applicants [RPL Handbook].
  - b. Provide self-assessment forms if required. Forms shall be made available indicating types of evidence needed for an RPL assessment. All evidence provided is to be certified.
- 2. An assessor shall conduct the assessment using the completed self-assessment forms and enclosed portfolio of documents.
  - a. An interview with the applicant is conducted if required. In addition to the document portfolio, assessment of an individual's competence may also include professional conversations; observation and questioning; supplementary assessment tasks; assessment without training; work samples; and documents to show and support skill.
  - b. The assessor shall verify the evidence available before making a judgment.
- 3. The applicant shall be notified of the results of RPL by letter or email using a standard RPL Outcome Template.
- 4. The assessor must evaluate all documents and pass them to the Admissions Office to record details in the college database.
- 5. Certification of units granted RPL should be listed on the applicant's Record of Result.

The Provost, Dean of the respective academic unit and the Office of Admissions and Registers shall be made aware of the responsibilities for the consistent implementation of this policy/procedure and this policy shall be monitored and reviewed regularly.

**STUDENT SERVICES** 

#### 7.0. Student Services

#### 7.1 Office of Student Affairs

The Office of Student Affairs supports and complements the mission of the University and its academic programs by creating a comfortable, safe and secure environment that contributes to the success of the students' educational mission and personal growth. It helps to involve students in the university community by providing appropriate student organizations, activities, publications and opportunities for interaction with faculty, staff and peers outside the classroom.

Office of Student Affairs coordinates all matters concerning Undergraduate Student Council, Student Welfare, Career Guidance, Alumni Affairs, Student Health, Placement, Student Discipline, Residential Halls, Transportation, Student Publication, Student Activities and Sports. Student may approach the Dean / Associate Dean – Student Affairs to resolve issues regarding student affairs and student support services.

#### 7.2 Counseling Services

#### 7.2.1 Student Counseling Policy

All counseling sessions are conducted with the utmost regard to confidentiality and all records kept by the Counselor are treated as confidential.

Information shared with a counselor is not released to anyone outside the Counseling Services office. Information may be released under the following exceptions, if,

- The student gives written permission to disclose information (In that instance, the student determines what information is to be released and to whom) or
- Student's meeting with a counselor shall be encouraged to discuss any concerns that they have about confidentiality of personal information.

#### 7.2.2 Academic Counseling Policy

Student advising is part of the academic duties of every faculty member. The Dean or Chair of the Academic Unit assigns faculty advisors so that the number of advisees per faculty advisor is as small as possible.

Each student shall have an appointed full-time faculty advisor. This does not preclude informal advising with a student regarding progress in the courses being taught.

Student advising is not limited to registering students, but encompasses all aspects of academic advising, including selection of electives, counseling on any academic difficulty/ ies or problem/s encountered, and monitoring the academic progress of advisees.

An academic advising guide has been prepared by the Provost's office and is distributed to all academic advisors.

Students shall receive notification of their faculty advisor and a listing of all students and advisors shall be made available in the Office of Academic Advising and Counseling Center in the Office of Student Affairs. Prior to actual course registration, faculty members shall be available to advisees during their scheduled office hours to discuss academic programs and issues related to vocational, career and educational goals. A record shall be kept of the advisory meetings. Faculty advisors assigned to the Office of Advising and Counseling Center shall coordinate further referrals.

Adjunct faculty is not to be responsible for the academic advisement of their students.

#### 7.2.3 Career Service Policy

The Career Counselor shall be available during office hours on all working days throughout the year; Students are encouraged to meet the Career Counselor and discuss their career plans.

All students are encouraged to avail of clinical training at sites available in the country and abroad during the summer break.

The students are encouraged to seek help in preparing their curriculum vitae.

Students shall also be helped in filling application forms for taking various licensing examinations being held in the country and abroad.

The Career Counselor collects and disseminates information about the various hospitals, institutions and universities offering internship and residency programs in the country and abroad.

The Career Counselor shall encourage students to keep in touch with the alma mater through the University's website, correspondence and telephone.

The Career Counselor maintains a register of GMU Alumni. The Career Office also keeps a record of employment of all Alumni and seeks evaluation of the GMU graduate as an employee.

The Career Counselor shall submit reports periodically to update the Alumni records in the Institutional Research Unit (IRU).

#### 7.2.4 Personal Counseling Policy

Professional counseling is available for personal problems (i.e. financial, career, home, health etc.) especially if students have;

- Physical complaints when no medical causes can be found.
- Excessive anxiety for examinations / accommodation / or home sickness.

- Lack of interest in daily activities.
- An unusual amount of irritability or fear to mingle with friends.
- Not being able to cope with studies.
- Inability to concentrate on daily activities.
- Personality changes such as sudden shifts in mood / behavior that can't be explained.

Referrals are made to the Office of Admission & Registers regarding regulations concerning questions of transfer; to the Accounts Office regarding financial aid issues; to the Career Counselor's Office regarding career or job placement issues, by the Dean, Student Affairs who attends to all student activities, discipline issues, university policy etc.

#### 7.3 Student Activities Policy

The Office of Student Affairs offers comprehensive programs and services that foster an educational environment conducive to the overall development of students.

The Office of the Dean - Student Affairs oversees all departments catering to various student services and serves as an advocate for students in the development of University policy. The Office is also responsible for administering the University code of conduct (Judicial Policies).

Information on specific program/s and service/s particularly athletic, cultural and literary like GMU Global day celebrations, Intercollegiate Sports meet, debates, presentations at scientific meetings, health exhibitions shall be published in the Student Handbook, Undergraduate Catalog and displayed prominently on Student Notice Boards, the University Website and MYGMU e-platform to encourage participation by all students in these events.

Participation in Health Camps, Oral Health Camps, Health campaigns for cancer awareness, Running for health, Healthy Baby contests sponsored by GMU and its affiliated hospitals is encouraged and provides opportunities for learning in community – oriented settings.

#### 7.4 GMU Undergraduate Student Council

#### 7.4.1 Composition

The Student Council generally consists of students duly elected as representatives for each Undergraduate and Graduate Programs offered by the College (College of Medicine, College of Dentistry, College of Pharmacy, and College of Allied Health & Sciences & College of Graduate Studies). More specifically, class representatives elected in the various years of different Programs constitute members of the Student Council

The Representatives will be elected following an approved election procedure which consists of the following stages.

- Nominations of the candidates are submitted to the Dean of Student Affairs.
- The Dean of Student Affairs will supervise the voting and declare the results of the election.
- The names of the elected class representatives will be announced to the University.
- Elected student representatives will be invited to the Office of the Dean, Student Affairs where they will sign a formal document accepting their duties and responsibilities as elected members of the student council.
- The University reserves the right to remove student representatives from their office on disciplinary grounds and/or inadequate performance.

The responsibilities of members of Student Council include

- ✓ Identify personal problems of students
- ✓ Bring forth grievances
- ✓ Recommend effective measures for well being
- ✓ Constitute GMU-Literary & Oratory Club
- ✓ Motivate Student Publications

From among the members of Student Council, through a process of fair election, the Executive Board is constituted. The below mentioned treatise spells out the personnel and their responsibilities

#### 7.4.2 The Executive Board Members and Responsibilities

#### **General Secretary**

The General Secretary shall serve as Chair of the Undergraduate Student Council and shall preside at all of its meetings. He or she shall sit as a member of the Committee on Undergraduate Education. He or she shall serve as the official representative of the Council, and shall have ultimate responsibility for the proper observance of all responsibilities delegated to members of the Undergraduate Student Council or of any committee thereof

# **Joint Secretary**

The Joint Secretary shall serve as acting chair of the Undergraduate Student Council in the absence of the General Secretary, and during such time assume all the duties of that office. He or she shall assist the General Secretary in the proper observance of all responsibilities delegated to the members of the Undergraduate Student Council or any committee thereof.

#### **Communication Officer**

The Coordinator shall keep a record of the proceeding of all meetings of the Council, and shall distribute copies of that record to all representatives before the next meeting of the Council. He or she shall be responsible for all other correspondence of the Council. He or she shall maintain a current file of all minutes of the meetings of

the council, together with any additional documentation of interest to the Council. The Coordinator shall keep a current list of the membership of the Graduate Student Council and its representatives to all internal and external committees, and shall inform the chairs of such bodies following selection of those representatives. Along with the Joint Secretary, the Coordinator also co-chairs the committees for conference and summer research grants.

#### **Treasurer**

The Treasurer shall serve as Chair of the Budget and Funding Committee. He or she shall keep a full account of money expended and received, and shall make a report of such account at such time as the Council may desire. He or she will coordinate University-administered receipts and all expenditures and financial responsibilities of the Council. He or she shall have charge of all accounts managed by the Council.

# **Event Coordinator (EC)**

The Event Coordinator shall serve a 1 year term from the date of one election to the date of the next election. He or she will be responsible for hosting all extra-curricular events hosted by GMU. He or she will be responsible for allocating responsibilities to different members of the council for each event. The Event Coordinator must plan and execute the following events in conjunction with at least one staff member for each event (National Day, Global Day, etc.) and may suggest plans for any activity.

#### Representation

GMU Student Council, through the General Secretary, shall have representation in faculty committees such as Academic Council, College Council, Student Affairs Committee, Curriculum Development Committee, Library Council, Sports, Culture & Literary Committee, Campus Health, Safety & Security Committee and Planning & Budgeting Committee.

#### 7.4.3 Student Publications

Students write, edit and publish a newsletter (Previously 'GMU Pulse', under name change at present), which is an essential feature that chronicles student life at GMU. The students' newsletter expresses their sense of commitment and degree of participation as well as their awareness of the educational and social issues that affect life in GMU. The newsletter reflects the composition of GMU and it appears in two languages - Arabic and English.

#### 7.4.4 Student Behavior

- All students are expected to maintain decorum and decency in conducting themselves in the Campus.
- Men and women students should not be seen lingering together anywhere in the campus including the central hall, corridors, learning center or Coffee shop. Faculty members have been requested to be on the vigil about this and have been authorized to censure any student violating this regulation.

# 7.5 Student Academic Services

## 7.5.1 The Dean's Office

The Dean's office oversees all departments catering to various student academic services.

#### 7.5.2 Career Service Office

The University has a full time Career Counselor.

# 7.5.3 Financial Aid Office

Information on financial aid may be obtained from the Chief Accounts Officer of the Gulf Medical University.

Refer to Section 11.16 under Financial Aid and Scholarships in this document for further details.

# 7.6 Student Records Policy

- The University shall maintain confidentiality of student records. The student records shall be stored in safe custody and only authorized personnel shall have access to them.
- Transcripts shall be issued only upon the signed request of the student or his / her parent. Under no circumstances shall the student records be released to any third party without the knowledge of the student or the student's parent.
- All official records shall be signed by the Provost of the University whose signatures only shall be recognized outside the bounds of GMU.
- A progress report shall be sent regularly to the contact address to inform the parents / guardians about their ward's progress.
- The records policy shall be published in the Student Handbook for information. The Office of the Dean, Admissions & Registers shall maintain the student's permanent academic record and requests to view the individual's record must be made to the Office of the Dean, Admissions & Registers.
- The program office of the academic program in which a student is enrolled also maintains student files that are considered non-permanent. Students have the right to access their program file except documents where access has been waived (e.g. recommendation forms).
- A student must submit an application to the Dean, Admissions & Registers office to obtain access to his/her program academic record.

#### The Office of the Dean, Admissions & Registers shall ensure:

- The continuous maintenance and back up of student records with one set stored in a secure location, preferably off-site, in a vault or fireproof cabinet.
- Special security measures to protect and back up computer-generated and stored records.
- Confidentiality of records.

- A definition of what constitutes the permanent record of each student; the right of access to student records, including students' access to their own records.
- The authority to manage and update student records.
- The appropriate retention and disposal of records.

# 7.7 Information Release Policy

- The University shall neither deny nor effectively prevent current or former students of the University the right to inspect and review their educational records.
- Students shall be granted access to their records within a reasonable period of time after filing a request. Students have the right to request the amendment of their education records to ensure that the records are not inaccurate, misleading or otherwise in violation of their privacy or other rights.
- The University shall not release or provide access to education records, except "directory" information, without the written consent of the student to any individual, agency or organization.
- The University is, however, authorized to provide access to student records to Campus officials and employees who have legitimate educational interests in such access. These persons are those who have responsibilities in connection with the academic, administrative, or service functions of the university and who have reason for using student records connected with their academic or other university responsibilities. Disclosure may also be made to other persons, Ministry and Government officials or organizations under certain conditions (e.g. as part of an accreditation or program evaluation; in response to a court order, audit in connection with financial aid; or to institutions to which the student is transferring).
- The University shall designate the following items as "directory" information: student name, addresses, telephone numbers, major field of study, participation in officially recognized activities and sports, dates of attendance, degrees and awards received, most recent previous school attended and photograph. The University may disclose any of those items without prior written consent, unless notified in writing on the form available from the Dean, Admissions & Registers.
- Confidentiality of information shall be highly respected at GMU. If students wish
  that any of their education record shall be available to anyone, a consent form
  shall be available in the Office of Registers & Records. If there is no consent form,
  information will not be disclosed except to the appropriate person(s) in
  connection with an emergency, if the knowledge of such information is necessary
  to protect the health or safety of the student or other persons.
- Under no circumstances shall the student records be released to any third party without the prior knowledge of the student or the student's parent.

# 7.8 Plagiarism and Copyright Policy

Plagiarism is defined as "a piece of writing that has been copied from someone else and is presented as being your own work". The student should cite the sources if they use someone else's ideas. If the student includes copyrighted material in their thesis, they are responsible for obtaining written permission from the copyright holder. The Gulf Medical University takes no responsibility in this regard. To avoid plagiarism, student must mention the sources properly using footnotes, endnotes or references, inclusion of illustrative graphs, charts etc. which are copyrighted sources, permission letter should be included.

Copyright is legal protection of intellectual property. As a thesis is legally classified as publication and an intellectual property of the student, during the preparation of the thesis, the student should comply with the copyright laws regarding the protection of original work. Copyright ownership means that the student has the exclusive right to print, reprint, copy, sell, and prepare derivative works based on their own work.

# 7.9 Class Room & Laboratory Protocol

Separate entrances are designated for men and women students in the Lecture Halls and Laboratories. Students are strictly advised to follow these.

- Attendance will not be granted to late comers to lectures and laboratories.
- Students are not allowed to bring food and drinks into the lecture rooms and laboratories.
- Lab coats must be worn only during laboratory work, ambulatory and bedside teaching activities.
- Students should use equipment and property of the institution with care and should not indulge in destruction or damage to any of the equipment & property. If a student is found to be responsible for any such damage, the repair / replacement cost for the same shall be recovered from the student.
- Students who require audio visual equipment for presentations should organize this
  with the help of the Administrative Assistant for Student Affairs. Students should fill
  in the request form for this and hand over the same at least 3 days before their
  presentation.
- Visitors are not permitted to attend lectures and enter laboratories except with the prior written approval of the Dean of the College.
- Students should leave the lecture halls as soon as the lectures are over. Lingering on
  in the hall alone or in groups is not permitted. Lecture halls will be locked soon after
  the lectures are over and will be opened only 15 minutes before the commencement
  of the lectures.

#### 7.10 Health Services

A Campus Medical Center is available in the GMU campus. The aim of the Campus Medical Center is to complement the academic mission of GMU and to provide educational, supportive and first aid health care to the GMU campus community, which includes students, staff, and faculty members. Great emphasis is exercised to make the campus a healthy and safe place to study, work and live.

With two full time nurses having MOH License, the Center provides Short-term emergency care for acute & chronic illnesses, for accidents within campus, and ambulance services: emergency services to Thumbay Hospital, Ajman / a local hospital as per need.

The Center is adequately equipped and has wheel chairs, stretchers, and first aid kits.

Students will be referred to the concerned specialist or to the emergency department in accordance with the nature of illness.

The Coordinator designated for each year of the different programs, will be informed about student's adverse health effects for relating the illness to any academic absence.

# 7.10.1 Health Services Policy

In order to streamline the health care needs of GMU students, a Campus Medical Center has been established. This will provide care in the following areas:

- o First Aid Service at GMU
- o Referral to Thumbay Hospital, Ajman
- o Coordination between GMU and Thumbay Hospital, Ajman
- o Blood collection for medical fitness tests on admission and before posting to clinical training sites.

The Student Management System has been linked with Information System of the hospital for easy identification of students for treatment.

As part of the registration procedures, every student must be covered for health services under one of the two following plans. Plan – I is compulsory for all GMU sponsored students. This provides medical benefits under the Thumbay Health Card. Plan II is compulsory for others who are officially enrolled in health insurance plans with their families.

Students shall be required to present the Student ID as identification document on registering for medical treatment.

The Office of the Academic Affairs at Thumbay Hospital, Ajman shall make arrangements for access to health care facilities at the hospital and to encourage students to undergo vaccination.

It is compulsory for all GMU students to have a valid Third Party Liability (TPL) Insurance from beginning till successful completion of the program.

Students shall be informed regarding the benefits of immunization and testing for communicable diseases and encouraged to undertake appropriate immunizations and tests.

# 7.10.2 Mandatory Testing for Infectious Diseases

All enrolled students on all programs offered by Gulf Medical University are required to undergo a Mandatory Testing for Infectious Diseases before entering the hospital for their clinical training. No student will be permitted to commence their clinical rotations if they pose a health risk to themselves and their patients.

All the following tests shall be conducted in CABRI, GMU. If any test has been previously conducted, students are requested to submit the report to CABRI. Testing is required for Antibody titres for Infectious diseases:

a. Protective Ab Panel:	b. Infectious Screen	c. Vaccinations
(TC:6911)	Panel (TC:6250)	• BCG, HBV and Tetanus
<ul> <li>Anti HBs</li> </ul>	<ul><li>HIV</li></ul>	are mandatory
<ul> <li>Varicella IgG &amp; IgM</li> </ul>	<ul> <li>HCV</li> </ul>	<ul> <li>Appropriate vaccines</li> </ul>
<ul> <li>Rubella IgG &amp; IgM</li> </ul>	<ul> <li>HBsAg</li> </ul>	recommended by
<ul> <li>Mumps IgG &amp; IgM</li> </ul>		clinicians are
<ul> <li>Measles IgG &amp; IgM</li> </ul>		mandatory.

GMU students posted in Hospitals are required to be further certified for Medical Fitness before starting the clinical rotations. Kindly be informed that:

- If the student has a medical issue and he/she did not inform about it during his/her application, the student will be terminated immediately from the program.
- If the student develops a disease during the training, his/her condition will be reviewed by a committee appointed to decide on the possibility of continuation of the program or not. This process will be followed for both communicable and noncommunicable diseases.
- If at any time it is discovered that a student has a communicable disease, then the Clinical Training will be suspended immediately till his/her case has been reviewed by the committee appointed for the same.

# **Needle Prick**

If a student gets a needle prick, the following procedures shall be taken:

- The needle shall be sent to the laboratory in a closed and sterile container to check for HIV, HCV and HBV.
- The prick site shall be cleaned and dressed.

- A blood sample at zero time shall be taken from the student to check for HIV and HBV and shall be documented in the student file in the college as well as with the Academic Office.
- A second blood sample shall be taken after 30 days of the needle prick to check for HIV and HBV and shall be documented in the student file in the college as well as with the Academic Office.
- A third sample shall be taken after 6 months of the needle prick to check for HIV and HBV and shall be documented in the student file in the college as well as with the Academic Office.
- If at any time the student shows signs of infection with HIV, HBV or HCV he/she shall undergo immediate treatment and his/her training will be suspended till proven free of disease.
- If the needle is found to have traces of HIV or HBV in it (after step 1) then the student's training will be suspended till proven free of disease.
- If the student does not show any sign of infection after the needle prick, the Clinical Training program can be resumed with a condition to keeNLHim/her under observation for signs of illness. And when the student has to change the rotation as part of the training program, the information of the needle prick shall be handed over to the respective Head of Department.

Note: Requisition forms for mandatory testing with the corresponding fee is available with the respective Colleges and listed among the details of fees under Section 11.10 Fees for other services of this Student Handbook.

# 7.11 Third Party Liability (TPL) Insurance

As per the Ministry of Health (MoH) guidelines, all students undergoing clinical training at various hospitals are required to have a valid Clinical Training – Third Party Liability (TPL) Insurance. This insurance cover is restricted to training hours only and / or whilst participating in indoor and/or outdoor university activities under university's expressed authorization including transportation from and to training center by university vehicles.

#### 7.12 Dress Code

#### 7.12.1 Professional Dress

Students should at all times maintain a neat and clean appearance, and dress in attire that is appropriate. When students are functioning as medical / health professionals, either with clinical patients or simulated patients, dress must be appropriate and professional. A professional image increases credibility, patient's trust, respect, and confidence. In addition, because medical and health sciences students utilize facilities on campus where patients and the public are present, professional dress and appearance are also expected even when students are not engaged in patient care. In addition, most

of the clinical facilities have specific dress code policies that must also be followed. Furthermore, Photo ID badges are to be worn at all times.

Violation of the dress code can have detrimental consequences for patient care and could damage the reputation of the institution. Flagrant and repeated violations of the dress code may be deemed to signify a lack of insight or maturity on the part of the individual student and call for counseling and discipline. The immediate supervisor may choose to discuss initial violations of the dress code directly with the student. Serious or repeated violations may be subject to disciplinary action.

- Students of GMU are expected to maintain decorum in their dress code in accordance with the dignity of the medical profession and of the institution.
- Traditional dresses are allowed only for UAE nationals.
- Students must wear white coats with identity cards / badges on entering the campus / clinical sites and must wear the coats as long as they are inside the campus / clinical sites. The white coat must be clean and well maintained and of acceptable quality. The white coat must be worn fully buttoned.
- The security and duty staff have the right to reject admission to any student into the campus when the student is not dressed properly or when the student is not wearing the white coat.
- White coats are to be worn only inside the college and hospital premises. Students should not wear white coats in public places such as supermarkets.
- Women students must take special care in avoiding skin tight and revealing dress.
   They must have their hair properly tied up and must not keep the hair loose. All women students must wear dress, which reaches down to the ankle level.
- Students must wear dress that does not hinder practical or clinical work.

#### 7.13 Student Support Services

Hostel  Dr. Joshua Ashok  Mrs. Sherly Ajay  Mr. Subeesh  Ext. 1317  Ext. 1384  Ext. 1219  Sports  Dr. Joshua Ashok  Ext. 1317  Ext. 1317	Faculty in-charge/ Coordinators	Name	Tel.No: 06-7431333
	Hostel	Mrs. Sherly Ajay	Ext. 1384
Campus Medical Center Mrs. Siia Binov Ext. 1535	Sports	Dr. Joshua Ashok	Ext. 1317
Ms. Remya Radhakrishnan Pillai Ext. 1535	Campus Medical Center	Mrs. Sija Binoy Ms. Remya Radhakrishnan F	Ext. 1535 Pillai Ext. 1535
Cultural Activities Mr. Vignesh Unadkat Ext. 1240	Cultural Activities	Mr. Vignesh Unadkat	Ext. 1240
Library Prof. Arun Shirwaikar Ext. 1301	Library	Prof. Arun Shirwaikar	Ext. 1301
Administrative Assistance:	Administrative Assistance:		
Accounts Mr. Aslam Hameed Ext. 1300	Accounts	Mr. Aslam Hameed	Ext. 1300
Mr. Josy Arackel Ext. 1414			

Library	Mr. Daies Idiculla Mr. Anzel	Ext. 1221 Ext. 1221
Common Rooms, Common Utilities and Transport	Mr. Subeesh	Ext. 1219
Audio Visual Aids	IT Department	Ext. 1222
Visa and Emirates ID	Mrs. Snigdha Ranish	Ext. 1532
Photocopy Section, Mail Boxes and Sub store	Mr. Sakthi Mr. Rizwan Ali	Ext. 1283 Ext. 1283

## 7.14 GMU Physical Facilities

#### 7.14.1 Class Rooms

The lectures are usually held in the four main lecture halls, Lecture Hall 1 – 4 on either side of the main building. In addition the lecture rooms (5 - 24) are used in teaching classes of smaller size for lectures, group discussions, seminars and tutorials. The graduate students have their classrooms in the GMU Information & Learning Center. Small group learning class rooms (1 - 6) are available in the GMU Information & Learning Center for conducting group based activities like CBL, PBL, Projects and Seminars that encourage collaborative learning among students.

# 7.14.2 GMU Testing Center

The state-of-the-art GMU testing center is the latest addition to the ever-growing facilities of Gulf Medical University. This unit is capable of accommodating students for regular Mid Semester / End Semester Examination / IELTS examinations administered online.

With a capacity of holding up to 88 participants, the center has all modern facilities. To meet the standards required for international testing regulations, invigilators are supported with adequate number of CCTV cameras in each testing halls. The testing center has a data processing room where post-test analysis of scores is done and the central evaluation room for the examiners to evaluate paper based tests. Access to the center and examination halls is user-friendly to people with special needs (wide elevator and doors).

#### 7.14.3 Common Rooms & Lockers

Separate common rooms with locker facility are available for male and female students. Locker keys may be obtained from the Administrative office. In the event of any damage to the lockers or loss of keys, a fine of AED 100 is levied. Only materials pertaining to academic and learning needs are to be kept in the lockers; strict disciplinary action will be taken if any objectionable material is found in the lockers.

# 7.14.4 Masjid

Separate entrance for men and women with ablution facilities are provided in the Masjid located in the campus.

#### 7.14.5 Mail Box

All incoming postal mail will be kept in the designated area close to the photocopying section.

# 7.14.6 GMU Hostel

**A. Aim:** The Office of Student Affairs supports and complements the mission of the university and its academic programs by creating a comfortable and safe environment that contributes to the success of resident students' educational progress and personal growth.

The hostel offers a learning environment that fosters self-dependence, respect for social and communal norms, tolerance of cultural diversity and provides opportunities for residents to improve their leadership, communication and social skills, which support their academic development.

These rules have been formulated to help the students study comfortably in the hostel, to ensure their safety and maintain discipline. All the inmates of the hostels are to strictly adhere to these rules.

# **B.** Hostels:

GMU Women's Hostel Jurf, Ajman GMU Men's Hostel, Ajman Studio / Single / Sharing rooms Single / Sharing rooms

#### C. Contact:

Name	Position	Telephone	Mobile	Email ID
Dr. Joshua Ashok	Dean - Student Affairs	06-7431333 Ext: 1317	050-7447921	joshuaashok@gmu.ac.ae
Mr. Subeesh P	Manager General Services	06-7431333 Ext: 1219	050-7467155	subeesh@thumbay.com
Mrs. Sherly Ajay	Ladies Hostel In- Charge	06-7431333 Ext: 1384	055-1073807	sherly@gmu.ac.ae
Mrs. Sowbhagya Ajith	Secretary – Student Affairs	06-7431333 Ext: 1337	050 - 1650254	sowbhi@gmu.ac.ae
Mrs. Daisy Thomas	Warden – GMU Girls Hostel	06-7464881	050-5103981	daisythomas@gmu.ac.ae
Mrs. Zubaida R	Warden, GMU Girls Hostel	06-7464881	050-3649007	rakefahaneef@gmu.ac.ae
Mrs. Rahima	GMU Girls Hostel		055-4226868	
Mr. Moideen	Warden, GMU Boys Hostel		050-8952265	

#### D. Hostel Fees Details:

**Security deposit of AED 1000**/- is required to be paid by all GMU hostel students (male & female).

Refund of security deposit is made on submitting the clearance of all dues of the hostel facility.

**Utility Charge** of AED 1100/- per year is required to paid by all GMU hostel students (male & female)

# Flat / Room Charge - GMU Women's Hostel Jurf, Ajman

Studio Flat – Single	AED 28,000/-	
Single - Double bedroom sharing	AED 24,000/-	
Sharing - One bedroom	AED 23,000/-	
Sharing - Double bedroom	AED 19,000/-	

#### GMU Men's Hostel, Ajman

Single Room - A	AED 25,000/-	
Single Room - B	AED 24,000/-	
Sharing – 1 Bed Room	AED 23,000/-	
Sharing Room	AED 19,000/-	

#### E. Facilities:

#### Women's Hostel

- Three new buildings (block 3, 4 & 5) are allotted close to the University, with fully central air-conditioned rooms with separate kitchen and bathroom.
- A Cot with mattress and quilt, a fridge, a study table and chair, a wooden cupboard and a micro wave oven.
- Common room facility in Double bedroom flats
- Living room facility in One bedroom flats
- Water coolers on all floors
- Common Washing room
- Full time warden and security
- Cleaning and maintenance support
- Free transportation to the University and monthly visit to malls Dubai / Sharjah

#### Men's Hostel

- Air conditioned room with kitchen and bathroom, Cot with mattress and quilt, a fridge, a study table and chair, a wooden cupboard and a micro wave oven.
- Water cooler

- Common washing facility and computer lab
- Full time warden /security
- Cleaning and maintenance support
- Free transportation to the University and monthly visit to malls Dubai / Sharjah

# Additional facility for AY 2016 - 2017

• Exercise Facility: All GMU hostel students shall be provided access to health recreation in Body & Soul, GMU Campus on concessional rate. The registration fee has been waived off. Only AED 125/- per month will be charged for GMU Hostel students.

Transport shall be provided for Hostel students to Body & Soul to and fro in morning and evening on a shift basis (6:00 AM – 7:15 AM) and (5:00 PM – 7:00 PM)

# Mess Facility

- Terrace Restaurant shall provide Mess facility to all GMU Hostel students
- Arabian, Asian and Nigerian meals (Dinner) shall be provided on discounted rates. (package menus are available on request)
- On request for 50 or more residents, *Buffet* shall be arranged in the hostel premises.
- Food from outside restaurants shall not be permitted after 10:00 PM.
- Transportation Facility / Shopping Trip Facility: Monthly special shopping trips shall be provided to Dubai / Sharjah for GMU Hostel students.
- a. Hostel students are provided transport facility to the University.
- b. On regular class days University bus has been arranged as per following schedule:

Time	Girls Hostel (Jurf)	Boys Hostel
Pick up to the University	1 <sup>st</sup> trip: 8:15 AM 2 <sup>nd</sup> trip: 8:20 AM	8:15 AM
Pick up from the University	3:45 PM	3:45 PM

- c. Transport facility is provided for students travelling home for summer holidays and semester break holidays.
- d. Transport will be provided <u>only to</u> Dubai International Airport Terminal 1, 2 & 3 and Sharjah Airport.
- e. Transport is **NOT provided** for weekend travels.
- f. Students are required to fill the Transport Request Form signed by the Warden has to be submitted to Mrs. Sowbhagya Ajith (Student Affairs Department) for approval.

# • Cable / TV / Internet / Computer Room

- a. Students are allowed to have a Television of their own.
- b. Hostel has Wi-Fi connections on all floors and an additional computer room with internet connection is provided for learning purpose.
- c. Computer / Internet misuse will be viewed seriously and will entail discontinuing the facility.

# Laundry facility

Washers and dryers are located in the hostel. The Laundry room will be closed by 11:00 PM.

# • Storage facility

Students are provided with cupboards in their respective rooms. Separate Storage rooms are **NOT** available in the hostels.

Students are required to clear their belongings on leaving the hostel. The university will not be responsible for student's belongings once the student leaves the hostel.

# Medical facility

Students should report any injury or illness immediately to the matron/warden without delay so that necessary medical attention can be arranged.

All GMU Hostel students are eligible for medical treatment in Thumbay Hospitals. Students are required to **present the Student ID** as identification document on registering for medical treatment.

# • Security

To ensure the security of all students, all GMU hostels are protected by security staff / warden for 24 hours throughout the year.

# F. Rules and Regulations

# 1. Right of Occupancy

- a. GMU students who have paid or arranged for the payment of their hostel fees, tuition and other college fees have the right to reside.
- b. Rent is charged for one academic year extending from the beginning of the academic year to the end.
- c. Request for renewal is to be submitted and paid for a month before the next academic year. The room is confirmed only on payment.
- d. Students leaving the hostel in the middle of an academic year are not eligible for refund of the rent.
- e. Student has the right to report to the Warden, Hostel In-charge or Office of Student Affairs in case of any difficulty faced during her/his stay in the hostel.

f. Students extending the period of stay for more than one month or more is required to pay the full hostel fees for the new Academic Year.

#### Curfew

- a. During **week days** (Sunday, Monday, Tuesday, Wednesday, & Thursday) all resident **female students** are expected to be in their respective rooms by **9:30 pm** and **male students by 10:00 pm**.
- b. During weekends (Friday & Saturday) female students must report back before 11:00 pm and male students must report back latest before 11:30 pm.
- c. During **Holy month of Ramadan**, female students must report back to hostel before 11:30 pm and male students before 12 midnight.
- d. Daily attendance of hostel students will be conducted and submitted to the Hostel In-charge.
- e. The hostel warden monitors the attendance records regularly for tardiness and absences. Repeated violation of attendance regulations will be reported to the Office of Student Affairs.
- f. Students require prior permission from the warden before leaving the hostel for shopping. Details about their movement in such cases should be entered in a movement register maintained for this purpose.
- g. Hostel doors will be **closed by 11:30 pm.**

Violation of the curfew timings and hostel regulations may result in the cancellation of the hostel facility.

#### 3. Weekend / Vacation out-pass policy

- a. Female students who wish to go out to visit their parents or relatives must obtain prior permission from their parents or nominated guardians on each occasion.
- b. A letter must be sent by email well in advance for prior approval to the following contact addresses:
  - o Ms. Sherly Ajay, Hostel in-Charge at email: <a href="mailto:sherly@gmu.ac.ae">sherly@gmu.ac.ae</a> or Mobile: 055-1073807.
  - o Daisy Thomas, Warden at email: <a href="mailto:daisythomas@gmu.ac.ae">daisythomas@gmu.ac.ae</a> or Mobile: 050-5103981.
  - o Subaida, Warden at email: <a href="mailto:rakefahaneef@gmu.ac.ae">rakefahaneef@gmu.ac.ae</a> or Mobile: 050-3649007.
- c. Student should fill out the out-pass form before leaving.

# 4. Inter-visitation

a. GMU students who are not residents of the hostel and parents are **not** permitted to stay in the hostel.

- b. In case of an emergency, a one-day stay of non-residents (current GMU student/ GMU student's sister), the concerned student requires to take prior approval (at least 3 days before) from the Office of Student Affairs.
  - A visitor fee of <u>AED 100/- per day</u> will be charged (*Permitted only for a weekend*). Student is requested to submit the receipt of payment on entrance to the hostel. Visitors are required to leave the hostel after the permitted time.
- c. Hostel students may be permitted to have visitors / friends in the visiting area and will not be permitted to take them to their rooms. (GMU students visiting time 4:00 PM 8:00 PM only)
- d. On behalf of the visitors, GMU students are required to fill the form and take the approval from the Warden.
- e. Outsiders other than parents or nominated guardians are not allowed inside the hostels. Parents are allowed to visit their ward's room only on the first day of the University or in an emergency situation upon approval.
- f. Visitors are required to submit their ID cards.

# 5. Smoking / Alcohol / Drugs

- a. Smoking, Shisha and using and / or storing drugs / alcohol are strictly prohibited in GMU hostels.
- b. If a student is found using drug / alcohol / shisha, he / she will face severe disciplinary consequences.

# 6. Littering

- a. The hostels are the residents' second home; all students are expected to maintain cleanliness inside the halls.
- b. Rooms are inspected periodically for cleanliness.
- c. Students are also expected to regularly remove the garbage in their rooms.
- d. Cleanliness: Hostel students are responsible for keeping their room clean and tidy at all times. A penalty will be imposed for excessively dirty and unhygienic rooms (after issue of a warning).

  The hostel management reserves the right to make spot checks. Residents whose standard of housekeeping is not acceptable will be asked to rectify the situation. Should there be no improvement, the room will be tidied by the cleaning staff and the charges will be billed to the students. Housekeeping standard is the prerogative of

# 7. Concerning Fire Codes

- a. A fire alarm indicates that an emergency situation has arisen.
- b. Students are required to switch OFF the electrical equipment's after use. In case any room is found to have the oven, AC or any other electrical equipment switched ON unnecessarily, the office

Warden, whose decision will be final and not open to debate.

# reserves the right to ask the student to pay the excessive electricity charges.

- c. Cooking indoors with charcoal or any open flame device, burning candles is prohibited.
- d. In case of any complaint regarding malfunctioning of switches or any other electrical equipment, the same needs to be reported to the Warden immediately or entered in the complaint book for immediate attention for repair.
- e. In case of fire / fire alarm, no electrical switches are to be switched on/off and elevators are not to be used.

# 8. Entering / Transfer of rooms

- a. GMU officials including Hostel In-charge and Warden may enter a student room in an emergency.
- b. Students will be informed in advance in case of maintenance work to be done or entry by officials / authorized vendor.
- c. Male members are not allowed inside the girls' hostel except male maintenance staff on prior approval who will be accompanied by the Warden.
- d. Request for a transfer to another room is to be forwarded through the Warden to the Hostel In-charge for approval.

# 9. Furniture

- a. Students are strictly forbidden from removing any furniture from their room.
- b. Hostel students are required to obtain special approval from the hostel in-charge to bring in their own furniture.

# G. Hostel student responsibilities

#### 1. Student responsibilities

- a. Students must take care of their personal belongings and the management will not be responsible for any loss or damage. Before leaving the hostel, the student must pay all hostel dues pending in his / her name. On leaving the hostel, the student is required to remove all his / her belongings.
- b. Students must maintain cleanliness and discipline in the hostel. All fixtures and fittings should be handled with care. If a student is found to be responsible for any damages, the cost of repair / replacement will be recovered from the student.
- c. Students are required to abide by the advice and decisions of the matron/warden on all matters pertaining to life in the hostels.
- d. Students are required to abide by any other rules or regulations, which the Dean, the Hostel In-charge or the warden may feel necessary to introduce from time to time.
- e. Students are required to submit the No Objection letter from their parent and fill up the out-pass /clearance form when staying outside or when vacating the hostel.

f. Students are required to submit the clearance form to Hostel In-charge signed by the warden before vacating the room and submit a copy to the accounts department for refund of the deposit.

## 2. Actions Prohibited

- a. Student should **NOT** break the curfew timings.
- b. Student should **NOT** write on walls, lifts, doors of the hostel.
- c. Student should **NOT** bring in any pets (cat, puppy, bird etc.) into the hostel.
- d. Student should **NOT** remove furniture, or install personal door locks in their rooms.
- e. Student should **NOT** insert / fix holes or hooks in walls, floors or ceiling.
- f. Student should **NOT** refuse to follow the instructions of the Matron or security personnel who is only performing his/her duties.
- g. Students are **NOT** allowed to decorate the exterior of rooms, corridors or other common areas.
- h. Student should **NOT** shout or create disturbances in any residential areas.
- i. Student should **NOT** drop or throw any solid object or liquid from the windows.
- j. Student should **NOT** harass or verbally abuse any resident or staff member living in the hostel.
- k. Student should **NOT** host overnight guest/parent without obtaining prior approval from the Office of student affairs/Hostel In-charge.

# 3. Following actions are taken for those who break the rules of the hostel

- i. Letter of first warning will be issued to the student.
- ii. Letters of second and final warning will be issued with a copy to the parents and the Dean of the respective College.
- iii. Third letter to the student, stating penalty / expulsion from the accommodation will be issued.

Any breach of the above rules by the inmates may result in their being deprived of the priviledge of occupying the room besides rendering themselves liable to pay for such damages, as may be claimed by the authorities. Also there will be **NO refund of fees** in the event of denial of hostel accommodation on grounds of misconduct (academic or personal).

# 7.15 Dining Services

GMU provides modern dining services in the campus where meals are served at a reasonable price. The dining facilities are provided at 3 locations in the campus and 2 in the Thumbay Hospital, Ajman. 'The Terrace', a multi cuisine restaurant located in the campus serves Arabic, Continental & Asian cuisines.

#### 7.16 Recreational Facilities

State of the art recreational facilities are provided in the Body & Soul Health Club, a gymnastic unit of GMU. Membership is provided to the students at a concessional rate and they can enjoy all facilities including swimming.

World class Basketball court, Volleyball court, Tennis court, Cricket & Football grounds have been located in the campus. Separate indoor Table Tennis, Badminton and Squash facility for male and female students have been provided. The sports committee announces inter-collegiate sports events every year wherein interested students can participate.

# 7.17 Transportation

Bus facilities, to commute from residence to GMU and other clinical locations, are available to the hostel students free of cost. Day scholars are provided transport on request and on payment of stipulated fees. Students requiring transport facilities should contact the Transport Department for all transport needs.

# 7.18 Student Identification

- All students are required to submit passport size colour photos to be affixed on their ID cards.
- The Student ID must be worn at all times and must be presented on demand in the campus, clinical sites and during examinations.
- Loss of ID cards must be reported to the Dean's office and a replacement card can be obtained after payment of AED 25.

#### 7.19 University Entrance

Separate entrances are designated for men and women students. These should be strictly adhered to. Parents, relatives and friends who drop the students in the University and drive them back are requested to respect this and drop or collect the students only from the designated areas. Students are not allowed to walk through the main foyer doors or sit in the entrance area. This area is meant for guests and visitors to the University.

#### 7.20 Car Parking in the Campus

- Cars should be parked in the allocated positions for men and women students separately in an orderly manner. Only cars belonging to the President, Trustees and other visiting dignitaries are allowed to be parked in the main portico area. The University administration reserves the right to tow away any vehicle, which has been parked in an unauthorized manner or place.
- Dangerous driving practices, creating inconvenience or risk to others and damage to property within the University campus are punishable offences.

- Parking is available for students and faculty in the following areas:
  - ✓ Adjacent to Lecture Hall 1, 2, 3 & 4
  - ✓ Behind Blends & Brews Coffee Shop

# 7.21 Information on Safety Issues

GMU adheres to and adopts the guidelines on safety issues, which covers safety aspects related to the Laboratory and handling of chemicals. Excerpts from the University Laboratory Safety Manual are provided.

# **Laboratory Safety**

#### 1. General

- 1.1 Take care not to run around in the laboratories unless a situation [e.g. Emergency] warrants the same.
- 1.2 Laboratory dress code:
  - Laboratory coat must be worn while pursuing laboratory work but be removed while visiting a non-laboratory environment, e.g. office, canteen, toilet, and computer room.
  - Smoking is not permitted at any time in or near the laboratory.
  - Long-sleeved laboratory coats must be worn to protect against chemical spills.
  - Latex gloves must be worn when handling toxic chemicals and, bacteria. However, do not use such gloves in the course of simple chores like opening doors, answering telephones, at the keyboard, to cite some examples.
  - Safety goggles or spectacles must be worn while working with hazardous chemicals or radioactive materials.
  - Use the face-mask when using the UV trans-illuminator.
  - Mandatory use of close footwear [E.g. No open-toed shoes, sandals and slippers] when working in the laboratory and while handling hazardous chemicals or radioactive materials.
  - Long hair or loose clothing must be secured before commencing work to avoid the possibility of their entanglement in equipment, or contact with chemicals or possibility of a fire accident.
  - Wearing any head phone while working is prohibited.

# 1.3 Waste disposal:

- Appropriate bags must be used to dispose hazardous and non-hazardous waste.
  The specially designed safety bag must only be used for disposal of hazardous
  waste and not for non-hazardous waste disposal. Non-hazardous waste can be
  disposed in the general household garbage bag.
- Broken glass and needles must be disposed in a sharps bin or plastic container.
- Acid, organic solvent, and radioactive waste must be disposed in the designated

bottles or containers (see Chemistry and Radiation Safety for detail).

#### 2. Electrical outlet usage:

- To avoid power overload and outage ideally, one electrical outlet must be connected only to one equipment.
- If the outlet is used for more than one connection, the adaptor with the Singapore Productivity and Standards Board (PSB) logo (i.e. PSB approved adaptors) must be used.

#### **Chemical Safety**

#### 1. General

• Working alone with hazardous chemicals (particularly after office hours) must be discouraged in all laboratories involved in such experimental work.

# 2. Chemical Storage

- The general properties and storage characteristics of each chemical must be indicated by a colored sticker on the chemical containers. The suggested color codes are:
  - a. **RED:** Flammable
  - b. WHITE: Corrosive
  - c. YELLOW: Reactive
  - d. **BLUE**: Health risk (carcinogen, mutagen, etc.)
  - e. **GRAY**: General chemical storage
  - f. **RED 'S':** To be stored separately from chemicals of similar code
- Chemicals must not be stored on the floor or on top shelves. The storage shelf must have rails to prevent any fall off.

# **Organic and inorganic chemicals** must be stored in different cabinets.

- Organic solvents must be stored in resistant containers, e.g. Glass or Teflon. The cap must be resistant to the solvent and screwed on tight. Solvents are stored primarily in a metal cupboard or sometimes in a fume hood.
- There must be no open flame near organic solvents, nor must they be kept near a heat source.
- **Concentrated nitric acid** must be stored in a designated cabinet.
- Poisons must be stored in a designated and locked cabinet.
- **Corrosive chemicals** must be placed in a location below eye level, e.g. in bottom shelves of a cabinet or under the sink.
- Cabinet shelves must not be overloaded.
- Upper shelves must not be heavier than lower shelves.
- All shelves must be protected with chemical-resistant, non-absorbent, easy-cleaning trays with anti-roll lips.

- All chemicals must be placed on these trays and not directly onto the metal surface of the shelves.
- All cabinets must be kept closed at all times other than during depositing or withdrawal of chemicals.
- All cabinets must be placed on the floor and must be stable.
- Labels indicating the contents of each cabinet must be displayed on the outside panel of the cabinet.
- A fire extinguisher must be located near the exit and not near the chemical cabinets. In the event of an explosion, a fire extinguisher near the explosion area might be rendered inaccessible or damaged.
- The appropriate type of fire extinguisher, i.e. Class B extinguisher such as carbon dioxide or foam, to deal with chemical fire must be used. Everyone in the lab must know how to use the fire extinguisher.
- Spill control kits to handle spillage of flammable chemicals, must be available.
- First aid kits must be available and they must be equipped to deal with accidental ingestion, spillage, etc.
- Periodic checks of containers in the chemical stores must be done in order to ensure that the conditions of the containers are satisfactory. These include but are not restricted to:
  - o The physical state of the primary and secondary containers
  - o The state of the seals of these containers
  - The cleanliness of the containers (salt deposits indicating leakage, etc.).
  - o The presence of moisture in the bottle or any other form of precipitation and / or caking.
- Adequate ventilation must be available.
- Bottles of toxic chemicals, once opened, must be tightly recapped, sealed and placed in a fume hood.
- Chemical bottles / containers in constant use must be placed in chemical-resistant, non-absorbent, easy-cleaning trays.
- Gas cylinders, hoses and regulators must occasionally be checked for wear and tear, leaks and functionality. A simple soap-bubble test can be done to check for leaks.
- All gas cylinders must be secured with chains.
- Empty gas cylinders must not be stored with full cylinders. In the event of a mistake, empty gas cylinders can cause serious-suck back effect when connected to pressurized equipment.

# 3. Chemical Handling

• All lab workers must be familiar with recommended procedures associated with the chemicals they are dealing with and the relevant hazards. When in doubt

- the Material Safety Data Sheet (MSDS) must be referred to, for information.
- All work involving aqueous hazardous chemicals must be done in fume hoods.
- All appropriate protective apparel/s must be worn when working with hazardous chemicals. These include but are not limited to gloves, masks, aprons, lab coats, face shields and goggles.
- Hand towel dispensers must be made available in all labs.
- Appropriate gloves for handling corrosives, hot/cold objects, organic solvents and other specific chemicals must be available.
- When a process is known to result in chemical fumes, wearing appropriate masks must be mandatory. Please note that normal surgical masks and dusk masks are not suitable protection against chemical fumes.
- Spilled mercury (e.g. from broken thermometers) must be picked up using a pipette and stored in a small, tightly sealed and labeled plastic container in the fume hood.
- Standard Operating Procedures (SOPs) to deal with emergency situations arising from radioactive, chemical and bio-hazardous accidents must be clearly displayed in every lab.

### **Handling of Gases:**

- Make sure that you know how to operate the regulator on a gas cylinder before using it.
- Gas cylinders must be replaced before they are completely empty. Some positive pressure must be allowed in the used cylinders.
- Check the gas tubing from time to time.
- Poisonous gases and chemicals that give rise to vapors must be experimented with only in the fume hood.
- Do not light any flame when you smell a gas leak. Beware of flammable gases, e.g. Oxygen and Acetylene.
- If you smell something dangerous, raise the alarm and evacuate the lab immediately. The source must later be traced and action taken by the appropriate safety personnel.

# While Handling Liquid Nitrogen:

- Your hands must be protected by a pair of thick heavy duty gloves.
- Lab coat must be worn and legs and feet protected.
- Liquid Nitrogen must be kept and transported in Dewar flasks.
- Liquid Nitrogen splatters easily when pouring, especially if the glassware or plastic ware is not pre-chilled before use. Hence special caution ought to be exercised.

# Handling of Phenol:

- Phenol must be handled with appropriate protection and in the chemical fume hood.
- Phenol must be stored in resistant containers made of glass or Teflon.
- If ones' skin comes in contact with Phenol, it must be rinsed immediately with lots of water, followed by washing with soap and water.
- Spills must be attended to immediately and not left to dry unattended.
- Stains left by chemical spills must be cleaned up immediately.
- Hand towel dispensers must be made available in all labs.
- Appropriate gloves for handling corrosives, hot / cold objects, organic solvents and other specific chemicals must be available.
- When a process is known to result in chemical fumes, wearing appropriate masks must be mandatory. Please note that normal surgical masks and dusk masks are not suitable protection against chemical fumes.

# 4. General Chemical Disposal

Not all chemicals can be thrown into the drain. Ensure that the chemical is safe for discharge into the sewer. If not, store in empty reagent bottles or carboys for processing and disposal by a waste disposal company. As a general guideline, strong flammable and acute toxic chemicals must not be discharged into the sewer.

- Dilute all chemicals that will be thrown into the sewer.
- Acids and bases must be neutralized properly before discharging into the sewerage system.
- All gels (excluding those stained with Ethidium Bromide) must be disposed into special plastic bags. These bags, when full, must be double wrapped, secured properly and thrown with normal rubbish for disposal.
- Co-mingling of chemical waste in waste storage containers must be kept to separate confinement.
- Where the above is not possible, aqueous waste must be segregated into the following groups:
  - Halogenated
  - Flammable
  - Oxygen-Chloroform
- Flammable chemical waste must be stored in well-ventilated areas to reduce accumulation of flammable vapors.
- Solid chemical waste must be securely packaged before disposal into normal trash where they will eventually be incinerated. Exceptions to this are solids that sublime at room temperature and produce toxic gases. In such cases, try to convert the solids to a stable form and chemically inactivate it.

# **Organic Solvents:**

- Solvents are disposed of in specifically-labeled (name of solvent, your name and your supervisor's name) waste bottles in a fume hood. Do not pour them down the sink. Only very small quantities (< 1 ml) may be flushed down the sink with lots of water.
- Chloroform and acetone must not be poured into the same bottle as they react to form an explosive chemical.
- Chemical containers must be tagged with information including chemical name, description, generator's name and date of disposal.
- All chemical disposal exercises must be documented.

# 7.22 Fire Safety Policy

# **Objectives**

GMU Fire Safety Policy is established for the purpose of minimizing the risk of fire and in the event of a fire, to limit its spread, ensuring the safety of all the University personnel and visitors, minimizing the potential of fire from disrupting teaching and research, and lastly minimizing property and environment damage.

# **Policy Statements**

GMU is committed to a high standard of fire safety and will make all reasonable efforts to adopt best practices and compliance with current fire safety legislation and standards.

# 1. Unobstructed Passage of Escape

The premises on GMU shall have adequate means of escape in case of fire. All means of escape shall be correctly maintained, kept free from obstruction and available for safe and effective use at all times. Means of escape shall have adequate emergency lighting (in case of fire) which will be maintained in efficient working order

# 2. Provision of Fire Warning System

All buildings in GMU shall be provided with adequate fire detection and warning system. These shall be maintained in efficient working order

#### 3. Fire Fighting Equipment

Adequate means for fighting fire shall be provided and these shall be maintained in efficient working order.

# 4. Training

Appropriate fire training shall be given to all designated staff working in lab-based facilities and/or have an active role in the implementation of fire emergency plan

## 5. Fire Safety Inspection

All premises owned and occupied by University shall be subjected to regular fire safety inspection. Where hazards are identified, action is taken to implement appropriate control measures. Measures taken to protect buildings, installations and equipment from fire shall commensurate with the risks and shall be appropriate to the value of teaching, research or commercial importance of those assets

# **Roles and Responsibilities**

University staff has the following key responsibilities in implementing the fire safety policy.

#### **Deans**

Deans are required to ensure that:

• Departments under their charge implement this policy and other appropriate measures to minimize the risk of fire.

# **Heads of Department**

The roles of the Heads of Department are to ensure that:

- Regular fire safety inspections are carried out for their Department;
- Action is taken to minimize the likelihood of fire occurring as a consequence of the Department's activities;
- Escape routes, that is, entrances/exits, corridors, staircases and stairwells, are kept clear of obstruction and free from storage of combustible materials;
- New members of the Department, including research and undergraduate students, receive the necessary information, instruction and training on fire safety as soon as possible;
- Any contractor(s) employed by the Department and any visitor(s) invited by the Department are aware of the action to be taken in the event of fire; and
- Fire drills are carried out at least annually.

#### **Maintenance Department**

The Department shall ensure University premises and service infrastructure are constructed and maintained periodically in compliance with fire safety regulations and building codes.

#### **Administration Department**

The department shall ensure:

- Overall institutional compliance with this policy and regulations; and
- Coordinate the implementation of Fire Safety precautions.

# Employees', Students', Visitors' and Contractors' Responsibilities

Employees, Students, Visitors and Contractors are required to:

- Cooperate and comply with this Policy and instructions given to them in regards to fire safety and any other fire procedures;
- Know what to do in the event of a fire, including leaving equipment in a safe position, and be familiar with the escape routes from their location;
- Consider the risk of fire from their activities and reduce or control that risk;
- Not interfere or abuse any equipment provided for fire safety; and
- Report any observed shortcoming in fire precautions to the Administrative Department.

# **Safety Precautions**

- Teach students how to properly notify the fire department.
- Install smoke alarms in corridors, Laboratories, Lecture Halls and Cafeteria.
- Maintain and regularly test smoke alarms and fire alarm systems.
- Regularly inspect rooms and buildings for fire hazards. Ask the local fire department for assistance.
- Inspect exit doors and windows and make sure they are working properly.
- Create and update detailed floor plans of buildings, and make them available to emergency personnel, and students.
- Conduct fire drills and practice escape routes and evacuation plans. Urge students to take each alarm seriously.
- Make sure electrical outlets are not overloaded and extension cords are used properly.
- Learn to properly use and maintain heating and cooking appliances.

#### 7.23 Student Research Policy

# 7.23.1 Policies and Procedures for Conducting Research in GMU and its Affiliated Hospitals

GMU aspires to be known for the excellence and the impact of its research on the educational milieu of the nation and the outcome of clinical care and is committed to the attainment of its mission to:

- Prepare health science investigators in order to meet the health care needs of the nation and the region.
- Produce health care professionals who will integrate the advances in research with the best clinical practice.
- Promote health services, which incorporate the latest advances in scientific knowledge in a manner that supports education and research for the benefit of the community.

The university policies clearly describe the research activities and the procedures, which have been established to assure continued strong research productivity and require all Chairs of respective departments to ensure that all new academic, research and technical staff and all new research students are informed of the policy and its operation. One or more supervisors will supervise all student research that is conducted as a part of the course/program requirement.

The Research Committee is the principal research body of the Gulf Medical University and the Ethics Committee is the initial approving body for the research and experimental activities to be taken up by the Gulf Medical University and shall be responsible for the following:

- Where animal experiments are involved the globally accepted standards of laboratory animal care shall be followed.
- Carrying out research experiments involving human subjects shall conform to the ethical standards laid down in the Declaration of Helsinki.
- While collecting data from human subjects for research purpose all necessary conventions and formalities shall be adhered to.

## 7.23.2 Definitions

GMU conducts research of both social / behavioral nature, as well as Biomedical research both in the university, teaching and affiliated hospitals. As such, the organization follows the "Geneva Convention Regulations" regarding human subjects research. The following definitions are used in regard to "research" and "human subjects":

Research means a systematic investigation\*, including research development, testing and evaluation, designed to develop or contribute to generalizable\*\* knowledge. Activities that meet this definition constitute research for purposes of this policy, whether or not they are conducted or supported under a program, which is considered research for other purposes. For example, some demonstration and service programs may include research activities.

\*The term systematic investigation refers to a study in which there is a research protocol to be followed in its conduct, specific research questions to be answered, or a hypothesis to be addressed.

\*\*The term generalizable refers to a study designed to draw conclusions beyond the specific instances being studied, inform public policy, or generalize findings.

Human subject means a living individual about whom an investigator (whether professional or student) conducting research obtains (1) Data through intervention or interaction with the individual, or (2) Identifiable private information.

Intervention includes both physical procedures by which data are gathered (for example, venipuncture) and manipulations of the subject or the subject's environment that are

performed for research purposes. Interaction includes communication or interpersonal contact between investigator and subject.

Private information includes information about behavior that occurs in a context in which an individual can reasonably expect that no observation or recording is taking place, and information which has been provided for specific purposes by an individual and which the individual can reasonably expect will not be made public (for example, a medical record). Private information must be individually identifiable (i.e., the identity of the subject is or may readily be ascertained by the investigator or associated with the information) in order for obtaining the information to constitute research involving human subjects.

Human subject means an individual who is or becomes a participant in research, either as a recipient of the test article or as a control. A subject may be either a healthy human or a patient.

# 7.23.3 Ethics Committee

The Ethics Committee is constituted to review all projects and activities that involve human subjects. The Ethics Committee reviews all research proposals for potential ethical concerns like the following:

- Does the research project involve any foreseeable legal risks, or does it involve any risk of physical, psychological or social distress to participants?
- Does the research project involve the collection or use of body tissues or body fluids (including excreta) from humans or animals?
- Does the research project involve the collection or use of data collected from human or animal participants?
- Does the research project involve the collection of data through the direct observation of human subjects?
- Does the research project involve the collection of data through the indirect observation of human subjects?
- Does the research project involve the administration of any drug, food substance or placebo to human or animal subjects?
- Does the research project involve exposing human or animal participants to any abnormal or painful physical or sensory stimuli (including auditory, visual and olfactory stimuli)?
- Does the research project require human or animal participants to undergo abnormal physical, psychological or emotional stress (including dehydration, exercise, sensory deprivation, confinement or sleeplessness)?
- Does the research project involve exposing staff, students or participants to topics or issues that might cause embarrassment (including exposure to controversial, offensive or illegal ideologies)?
- Does the research project involve withholding information by deceiving participants?
- Does the research project involve participants who are potentially vulnerable or unable to give informed consent (including children under the age of 18, people

- with learning difficulties, people with cognitive disorders and people with debilitating illnesses)?
- Informed Consent Form attached with the proposals are reviewed for the following areas of concern:
  - a. Does the methodology protect the rights and welfare of subjects?
  - b. Does the risks to the subjects far outweigh the potential benefits to either the subject directly or to scientific understanding in general?

# 7.23.4 Informed Consent

Whenever any research activity involves human subjects, it is mandatory that the investigator, or his or her duly certified representative, obtain the informed consent of any and all such subjects. The informed-consent procedures and documents employed for this purpose should not contain exculpatory language through which the subject is made to waive, or to appear to waive, any of his or her legal rights, or to release GMU or its representatives from any liability for negligence.

To ensure maximum protection of human subjects and to ensure compliance with GMU and Research Committee regulations, investigators must follow the procedures outlined herein. While writing a detailed protocol for the proposed activity, the protocol should contain copies of informed-consent documents to be used, and a complete explanation of how informed consent will be obtained. Informed-consent documents should be designed to cover the specific study.

The following items ensure that all necessary elements of a Consent Form(s) have been addressed.

- Header contains name of institute/venue of study.
- Identity of the Principal Investigator(s) and contact information.
- Research topic/question, nature of participation, duration, and involved procedures are clearly stated.
- Risks and benefits of participation are clearly stated.
- Provision of feedback to the participants is mentioned.
- Provision for participant's anonymity has been made.
- Confidentiality of participant's information has been assured.
- Provision made for withdrawal and refusal to respond.
- Data storage, length of retention, and method of disposal are clearly stated.
- Provision made for distribution of a copy of the consent form to all participants.

[An example of an Informed-Consent document may be obtained from your Supervisor]

# STUDENTS' RIGHTS & RESPONSIBILITIES

# 8.0 Students' Rights and Responsibilities

# 8.1 Students' Rights

All students must become familiar with the academic policies, curriculum requirements, and associated deadlines as outlined in the University Catalog, student handbook & course syllabi. The academic advisor shall advise the student on all matters related to their program of study and will aid the student in the interpretation of policies whenever necessary.

However, it shall ultimately be the student's responsibility to meet all stated requirements for the degree and the policies related thereof. It is also the student's responsibility to actively utilize their campus email and the university web site, observe netiquette, observe the policies on internet use as published and made available in the Student Handbook as it tends to be a major communication resource and is often the primary form of communication between students.

Gulf Medical University shall maintain an academic environment in which the freedom to teach, conduct research, learn, and administer the university is protected. Students will enjoy maximum benefit from this environment by accepting responsibilities commensurate with their role in the academic community. The principles found herein are designed to facilitate communication, foster academic integrity, and defend freedom of inquiry, discussion, and expression among members of the university community.

# 8.1.1 Rights in the Pursuit of Education

Students will have the right:

- To pursue an education free from illegal discrimination and to be judged on the basis of relevant abilities, qualifications, and performance;
- To fair and impartial academic evaluation and a means of recourse through orderly procedures to challenge action contrary to such standard;
- To an academic environment conducive to intellectual freedom; and
- To a fair and orderly disciplinary process.

# 8.1.2 Right to Access Records and Facilities

Students will have the right:

- To access their own personal and educational records and to have the university maintain and protect the confidential status of such records, as required by appropriate legal authority; and
- To have access to accurate information regarding tuition fees and charges, course availability, general requirements for establishing and maintaining acceptable academic standing, and graduation requirements.

### 8.1.3 Right to Freedom of Association, Expression, Advocacy & Publication

Students will have the right:

- To free inquiry and expression;
- To organize and join association/s to promote their common and lawful interests;
   and
- To be able to protest in a manner which does not obstruct or disrupt teaching, research, administration, and / or other activities authorized by the university.

# 8.1.4 Right to Contribute to University Governance and Curriculum

Students will have the right:

• Through student representatives, to participate in formulating and evaluating institutional policies.

# 8.2 Students' Responsibilities

Students shall be expected to balance these rights with the responsibility to respect the learning environment for others and for themselves and to make their best effort to meet academic challenges undertaken. Students will be responsible for compliance with the University Code of Conduct.

The standards of professional behavior in the educational setting are related to three domains:

- 1. Individual Performance;
- 2. Relationships with students, faculty members, staff members, patients, community and others; and
- 3. Support of the ethical principles of the medical profession.

#### **Individual performance:**

- Demonstrates educational experiences (i.e., exams, clinics, rounds, small group sessions, appointments at the clinical skills center).
- Adheres to dress code consistent with institutional standards.
- Maintains appropriate relationships with students, faculty members, staff members, patients and community.
- Establishes effective rapport.
- Establishes and maintains appropriate professional / personal boundaries in all learning situations.
- Is respectful at all times to all parties involved.
- Demonstrates humanism in all interactions.
- Respects the diversity of race, gender, religion, sexual orientation, age, disability and socio-economic status in all interactions.
- Resolves conflict in a manner that respects the dignity of every person involved.
- Uses professional language being mindful of the environment.

- Maintains awareness and adapts to differences in individual patients including those related to culture and medical literacy.
- Supports ethical principles of the medical profession.
- Maintains honesty in all personal and professional dealings.
- Contributes to an atmosphere conducive to learning and is committed to advance scientific knowledge.
- Protects patients' confidentiality, while handling health information.

# 8.3 GMU Honor Code

The students of Gulf Medical University Ajman, must recognize that they form an essential part of the medical profession and society. The 'Honor Code' lays emphasis on student's behavior to meet the expectation of their profession, family and general public. The Honor Code is administered at the White Coat Ceremony. Students are required to read the pledge and sign an undertaking to observe all the rules as specified in the code.

# 8.4 Salient Features of the Honor Code

The code strives to emphasize the importance of ethical behavior and compassion in patient care. It helps a professional to understand the importance of the power of healing when all health care professionals work together as a team. It guides students to interact among their fellow colleagues and mentors. The honor code formally acknowledges a sense of trust, responsibility and professional behavior among students, staff and faculty members.

# 8.5 Breach of Honor Code

The following acts are considered as violation of the honor code:

- 1. Illegal, unethical and inappropriate academic conduct or professional behavior with colleagues and mentors either in college, hospital campus or in any professional gathering.
- 2. Failure to maintain confidentiality of a patient's health data.
- 3. Failure to provide the highest level of patient care.
- 4. Failure to report any situation where the 'honor code' has not been followed or failure to take appropriate action when the 'honor code' has been violated.

# 8.6 Effects of Committing an 'Honor Offence'

When a student, member of the administrative staff or faculty commits an offense against the rules of the honor code, it becomes violation of the 'code' and is termed as an Honor Offense. The matter must be reported to the Dean of GMU. The report would be taken to a committee formed by student and faculty representatives. Once the person is proved guilty, the Committee will initiate appropriate action depending on the degree of the offense.

# UNIVERSITY RESOURCES & SERVICES

# 9.0 University Resources & Services

#### 9.1 Introduction

The GMU Information and Learning Centre provides year-round reference and information services and assists students in the development of effective search strategies. Staff members at the Learning Centre assist students in identifying new and additional resources, confirming citations and providing instructions on how to use online databases and search engines.

# 9.2 Vision

To achieve its vision, the library shall acquire, manage and link information resources both physical and virtual and provide quality instruction to empower users to benefit from the full potential of the universe of knowledge. The information technology professionals and library staff shall together ensure that the GMU library shall meet the complex information needs of the 21<sup>st</sup> century for life-long learners to achieve excellence in undergraduate, graduate and professional studies.

# 9.3 Mission

The mission of the GMU Information & Learning Centre is to provide resources and instructional material to support the delivery of the curriculum. It also encourages appropriate practices in accessing and using information consistent with the GMU policies. The GMU Learning Centre is committed to maintaining the state-of-the-art information technology infrastructure to meet the current and changing information needs of the GMU community.

# 9.4 Library

The library at the GMU campus is a modern facility strategically located on the first floor of the Information and Learning Center. Library resources are accessed by faculty members, staff members and the students for stipulated periods according to the circulation policy.

### 9.4.1 Timings:

The library remains open from Sunday through Thursday between 8:00 AM to 10:00 PM and on Saturday between 8:30 AM to 6:00 PM (Except on official holidays). The official timings are further extended during study periods and examinations at the request of the students.

# 9.4.2 Library Resources

- Books
- E-Books (Access Medicine)
- Journals (Online)
- Journals (Hard copy)
- CDs
- Video Tapes

Online Databases:
 Proquest, Access Medicine, Cochrane, UpToDate, USMLEasy, Micromedex

# 9.4.3 Library Orientation

During the Library Orientation Program at the beginning of each academic year, the library staff member/s provide orientation and bibliographic instructions to the library users on the following topics:

- Issue of official username and passwords
- Use of various electronic resources
- Availability of resources in particular subjects / areas of interest
- Library rules and regulations and library services.

# 9.4.4 Audio Visual Equipment

The library has the facility for viewing medical video tapes and CD ROMs. A collection of VHS tapes and CDs on latest medical topics are available.

#### 9.4.5 Scanning and Printing

Scanning and printing of learning materials without infringing the copyright laws are provided in the library.

#### 9.4.6 Photocopy

Photocopy services are provided at a nominal charge of one dirham per 10 pages. The Information and Learning Center abides by existing national and international copyright laws.

# 9.4.7 Journal Article Request Service

The GMU users can get copies of Journal articles from the library on request. For getting a copy of the article, users have to submit a Journal Article request to the library in the prescribed form. The request form is available on the GMU library website. The applicant shall get a copy of the article within three working days, if it is available in the GMU library.

#### 9.4.8 Cataloguing

The GMU library follows the Anglo-American Cataloguing Rules (AACR 2) for Cataloguing and the National Library of Medicine USA coding for its classification system. The GMU library is using "AutoLib System Software".

#### 9.4.9 Online Public Access Catalogue (OPAC)

The GMU Library provides Online Public Access Catalogue (OPAC) through the library website (<a href="www.gmu.ac.ae/library">www.gmu.ac.ae/library</a>). The user can search the catalogue by author, Course Title, subject, ISBN or a key word.

#### 9.4.10 Security Gates

GMU central library has two security gates (3M library security system) for the protection of the library resources.

3M Library Security System: The 3M Library Security System consists of several components including 3M Tattle-Tape, circulation accessories, and a detection system. The key to the effectiveness of the system is protecting the library resources with 3M Tattle-Tape security strips. The security systems set off an alarm when any book is removed from the library without issuing it.

# 9.5 Library Policy and Procedures

- Adequate library and learning resources are essential to teaching and learning. The
  purpose of the library is to support the academic, research, health services and
  continuing education programs of the university by providing students, faculty and
  staff members with the information resources and IT services they need to achieve
  their educational objectives.
- The library staff members work closely with the Head of respective Departments, faculty members, students and community patrons in determining their needs in terms of additional resources and services.
- Gulf Medical University maintains an adequate level of professional librarians and support staff at the Gulf Medical University Campus and Thumbay Hospital, Ajman (A GMU Teaching Hospital) and the affiliated hospitals.
- The Gulf Medical University selects and purchases the required print and non-print
  materials in adequate quantity, including the lease of information databases
  suitable for the instructional needs of the university with the goal of providing
  access to the maximum amount of relevant information available within the
  constraints of the libraries' budget.
- Gulf Medical University provides automated systems in the following areas: online public access catalog, circulation, cataloging and acquisitions.
- Gulf Medical University provides bibliographic instruction to the university community and interested groups, including orientation programs, personal assistance, computer-assisted instruction and printed information in the form of flyers.
- Gulf Medical University provides regular and extended hours of service to suit the needs of its learning community.
- Gulf Medical University maintains and continues to improve the facilities and equipment for housing and using the print / non-print materials.
- Gulf Medical University evaluates the resources and services annually via student surveys, reviews of holdings by library staff and faculty members, comparison with similar institutions, and direct feedback from all users.

#### 9.6 Library Rules and Regulations:

Students are required to abide by the following code of conduct while using library resources.

- Separate areas have been designated in the library for men and women students. The reading rooms and computer facilities have been arranged accordingly.
- Students are expected to use the designated reading rooms and computer areas separately marked for men and women in the library.
- Students who are seen in areas other than those specifically designated for their use are liable to face disciplinary action. Video library facilities shall be arranged on separate days for men and women students.
- Students are not allowed to sit on the steps or passages near the library or in other vacant parts of the University.
- Students are reminded that defacing or stealing library material is classified as personal misconduct and is liable to invite censure.
- Personal laptops are allowed into the library; however, other personal items and handbags may be deposited in the area provided before entering the library. No foods and drinks are allowed inside the library.
- The students are requested to carry Identity Cards at all times. These are coded and are required to issue books.
- Books may be issued from the GMU campus only. Books may be reserved using online services. Books may be issued for limited periods up to 2 weeks at a time. The library in Thumbay Hospital, Ajman and other affiliated hospitals do not issue books. Instructions on how to access subscribed online text books and databases are prominently displayed.
- The library staff is available at all times for locating books, CDs, Videos, Journals and any other library services (such as inter-library loan, accessing electronic resources, other cooperative arrangements, orientation, training).
- Photocopying class handouts is permitted. However, international laws regarding image reproduction and copyright laws shall be strictly followed.

# 9.7 Circulation Policy and Procedures

GMU circulation policies are designed to permit prompt and equitable access to library materials. The staff at the circulation service desk is focused on meeting the needs of the library users.

- 1. Circulation privileges are accorded to those holding valid GMU identification cards. The ID must be presented on request in order to use the Library facilities and services. Cards are not transferable.
- 2. Two books will be issued for a maximum period of two weeks. This can be renewed once as long as there is no holding request for the same book.
- 3. Short loan for reference books will be allowed ranging from one hour to a maximum of three days.
- 4. A fine of AED 1.00 per day will be levied for over-due books. If the fine is more than the cost of latest edition of the book, the user has to pay the cost of the

- latest edition of the book including procuring expenses equivalent to 10% of cost of book. Users cannot borrow further books until due items are returned and penalties paid.
- 5. The users are not allowed to make any marking / underlining / highlighting in the library books and journals. They should not indulge in any act that may damage the books / journals. If any page is torn away or damage is caused to any book or journal, the borrower will be asked to pay the penalty one and half times the cost of the book / journal and also be referred to the disciplinary committee for further action.
- 6. In case of loss, users have to replace the latest edition of the new book or pay the cost of the latest edition of the book including procuring expenses equivalent to 10% of cost of the book.
- 7. Reservation may be placed for loaned item.
- 8. The Library will not issue a "No Dues Certificate" until all books are returned and fines are paid.
- 9. Students are encouraged to take the responsibility of returning the books on time. Accumulation of fines and non-payment may result in non-issue of Admit cards before examinations.

# 9.8 Multimedia Labs

The Computer Center located on the ground floor of the Information and Learning Center of Gulf Medical University shall provide a basic technological infrastructure for all academic activities.

The Multimedia Lab includes the provision for networks, intra-GMU links and appropriate hardware and software for administration and academic needs. The Multimedia Lab shall ensure support of a full time IT instructor so that the technological infrastructure is used effectively. For this purpose, among others, the Center assumes a significant role in user support and training.

#### 9.9 Smart Classroom

Our smart classrooms are equipped to provide two-way communication between 70 inch 4K display and user smartphones or tablets. Work live annotating over and collaborating with any application program, in 42 language, plus live voice and video recording.

It also provides users with a thoroughbred polling solution and offers a high level of collaboration and annotation functionality on mobile devices. Follow presentations in real time, annotate, collaborate, share, send and save on iOS, Windows or Android devices.

#### 9.10 Network Infrastructure

The Local Area Network (LAN) Infrastructure encompasses all academic offices, lecture halls, laboratories, administrative & faculty offices. The network provides high

bandwidth servicing data, voice & video accessories, and is connected to the Internet through two DSL lines, which is protected behind a secured firewall & monitored 24 X 7.

The Multimedia Lab is a state-of-the-art data center, which houses the GMU servers, and the backbone network switches and houses the data and software required for administrative packages as well as fulfilling other faculty, staff and student uses.

All GMU students shall be provided individual accounts so that they can access the system to obtain current information on all academic matters, access online learning materials and tools, use discussion forums and interact with faculty members. Users can also use the Web mail to access their e-mail through the Internet. The video conferencing facilities enable video meetings and distance learning.

#### 9.11 Wi-Fi Network

All wireless access to university networks shall be authenticated by Information Technology Security (ITS) approved methods. Faculty / staff members, students and visitors at the university can only access the wireless network using this encrypted network.

#### 9.12 Online Resources

GMU has an online e-learning facility to enhance the learning process and help students improve their knowledge by offering additional instructional material/s. It allows students to access the facility from the campus as well as hostels and residences. The Center focuses on the creation of an environment where all students will have easy access to information resources by providing innovative technologies and learning resources.

#### 9.13 Servers & Supports

All the computers within the campus are connected to high end rack servers which itself is supported by a power back up of 3 hours and monitored round the clock. The servers are installed with antivirus software, which is updated regularly, and entry is restricted to authorized members only.

#### 9.14 IT Training

Appropriate training sessions are being conducted for all students at regular intervals around the year to update them with the use of the latest software and learning tools in the field of Information Technology.

#### 9.15 Internet Services

The GMU Information and Learning Center provides Internet facilities for all students, faculty and staff members. Search can be carried out freely by individual users or with

the help of the librarian. Users can print their search results or directly send the documents by e-mail to any registered e-mail accounts.

# 9.16 Technology Support for Learning

All the class rooms are equipped with adequate technology support comprising computers, projectors to learning, meet the needs of the University community with local access port for both faculty members and students. A protected Wi-Fi is available to facilitate usage of portable IT gadgets among the students and faculty / staff members within the campus.

# 9.17 IT Support Team

The Gulf Medical University IT Support Desk (Help Desk) is manned by a technical support team that provides prompt, knowledgeable, courteous computing support services through the phone, in person and email. The Help Desk is available to everyone who uses the GMU Computing Service and is the first point of contact for any technical queries.

One of the tasks of the Help Desk is to help members of the GMU to be more productive through the use of the available IT facilities.

GMU IT Support Team constantly collects valuable feedback about the services and its quality in a bid to improve what they offer. The GMU IT Support Team was set up to handle users' initial calls for technical assistance.

Name	Position	Telephone	Mobile	Email ID
Mr. Glen Francis	IT Support Engineer	06-7431333 Ext: 1222	056 2296745	glen@it.thumbay.com
Mr. Rakesh Maruthiyottu	Desktop Support Technician	06-7431333 Ext: 1222	055 7902143	rakesh@it.thumbay.com
Mr. Seyed Zunaid Ahamed	Desktop Support Technician	06-7431333 Ext: 1222	055 3081014	zunaid@gmu.ac.ae
Mr. Shaiju A K	Network Administrator	06-7431333 Ext: 1392	055 7067041	shaiju@it.thumbay.com

#### 9.18 User accesses and Security

Access to operating systems is controlled by a secure login process which ensures:

- No display of any previous login information e.g. username.
- Limiting the number of unsuccessful attempts and locking of the account if exceeding the limit.
- The hiding of password characters by symbols.
- Display of a general warning notice that only authorized users are allowed.
- All access to operating systems is via a unique login id that will be audited and can be traced back to each individual user.

- All University systems, vulnerable to attack by malware shall be protected by antivirus software wherever possible unless a specific exclusion has been granted and alternative measures have been taken to provide the same degree of protection.
- Centrally Managed Kaspersky Antivirus 8.0 using Kaspersky Security Center protects client systems running under Microsoft Windows XP, Vista 7, Windows 7, Windows 8 and server systems running under Windows Server 2003, 2008 R2 from all types of malicious programs. The product is designed specifically for highperformance corporate servers that experience heavy loads.

# 9.19 E-Learning at GMU

The GMU e-learning has an effective system that caters to a self-paced personal learning through resources available over the Internet.

The Gulf Medical University uses Moodle as an open source e-learning platform. Students can access the e-learning system from any location of their choice, since the system is completely online. The University has campus-wide Wi-Fi services to facilitate e-learning practices. Computers with Internet access have been provided in addition at all clinical training sites, in the library, student common rooms and residence halls.

Students are provided instructions on the proper use of the e-learning medium. Accessing protected computer accounts or other computer functions, knowingly transmitting computer viruses and unethical use of GMU access is prohibited.

To be granted the use of a computer account, users have to agree to abide by universal guidelines on use of the computing and Internet services.

Access to the use of computer facilities is permitted only through authorized computer accounts. A computer account consists of a unique login ID and a password. Students are requested to keep their password secret. To activate the GMU account, the user shall be instructed to go to the GMU website and follow the instructions.

# 9.20 Student IT Support Policy

The IT Support Policy provides guidelines on IT support to all its stakeholders including faculty & staff members, students and various other relevant stakeholders. This policy encompasses IT support (Hardware / Software / Allied Services) for IT resources and infrastructure owned and managed by Gulf Medical University. IT policies also cover faculty owned and student owned hardware and Software.

# 9.21 Electronic Recording Policy

Electronic Recording Policy provides guidelines regarding digital archiving of the processes that are recorded as per the university policy. This helps in providing archives of various academic and extra-curricular activities. This policy applies to all electronic

recording equipment that monitors or record processes / facilities of Gulf Medical University.

Gulf Medical University has installed electronic recording equipment's like Video cameras and / Micro phone/s, CCTV camera/s, Web cameras etc. for digital archiving, as required of academic, examination, non-academic process/es and / or other extracurricular activities in the University in compliance with university policy and other federal laws.

# 9.22 Procedures for IT Support for faculty-owned and student-owned hardware and software.

- IT Department shall provide limited hardware and software support for facultyowned and student-owned hardware and software.
- IT Department shall also assist in recommending required compatible hardware and software for meeting the academic / research / other scholarly activities for its registered users.
- IT Department shall provide support to configure the student-owned and faculty-owned hardware to access the University Network.
- IT Department shall provide assistance in installing or upgrading of licensed software owned by the student / faculty / staff members in their own IT devices.
- IT Department shall provide assistance in downloading and installing open source software/ free downloadable software's in faculty-owned and student-owned devices in compliance with existing local and international laws as amended from time to time.
- IT Department shall not provide support in any case that leads to violation and infringement of the terms and conditions of warranty of the faculty-owned or student-owned hardware/software.
- IT Department shall endeavor to guide the students / faculty / staff members regarding methods to avail the required support service/s from the nearest authorized service provider with ease and to their satisfaction.
- The IT personnel providing hardware / software support shall also guide the
  concerned stakeholder/s to facilitate the backup of data in storage device(s), if
  required before seeking the resolution of hardware or software services/support
  from an authorized vendor.
- The IT personnel shall provide assistance in resolution of problems related to networking, internet, email accounts, network operating system accounts, browsers, and access to Learning Management System of the University.
- The IT personnel shall provide onsite-service to student-owned and faculty-owned devices only in the IT support office/s designated for the purpose.

THUMBAY HOSPITAL, AJMAN
[A Gulf Medical University
Teaching Hospital]

# 10.0 Thumbay Hospital, Ajman

The Thumbay Hospital, Ajman (A Gulf Medical University Teaching Hospital), the first teaching hospital under the private sector in UAE, became operational in October 2002 by the Thumbay Group. With its unique approach to healthcare, bringing together the best professional expertise and infrastructure at affordable prices, the hospital constantly strives to fulfill its motto of "Healing through knowledge and wisdom".

#### 10.1 Vision

The vision of the hospital is to be recognized as a leading Academic Healthcare Centre providing high quality patient centric specialty healthcare services to the community integrated with medical research and clinical training.

#### 10.2 Mission

The mission of the hospital is to provide ethical patient care focused on patient safety, high quality care and cost effective services. The Thumbay Hospital is committed to integrate the latest trends in education to produce competent healthcare professionals who are sensitive to the cultural values of the clients they serve.

The Thumbay Hospital continues to strive to attain the highest quality and accreditation standards.

The Thumbay Hospital is committed to promote ethical clinical research that will enhance the outcomes of clinical care.

#### 10.3 Clinical Departments and Services

The Thumbay Hospital is the first JCI accredited hospital in Ajman. Being a multi-specialty hospital, it houses the Departments of Anesthesiology, Accident & Emergency, Internal Medicine including Cardiology, Dermatology & Venereology, Gastroenterology, Neurology, Nephrology, Pulmonology, Psychiatry, Family Medicine; General Surgery including Orthopedics, Urology, ENT, Ophthalmology, Pediatric Surgery, Plastic Surgery; Obstetrics & Gynecology, Pediatrics & Neonatology, Clinical Nutrition, Physical Therapy, Radiology and Critical Care Units (ICU, CCU and NICU), Cath Lab and Dialysis Unit, Dentistry with General Dentistry, Prosthodontics, Endodontics, Orthodontics, Pedodontics and Periodontics.

Specialized services include a medical imaging department with state of the art equipment like spiral CT scan, BMD, MRI, Mammography, Ultrasound, Color Doppler, Ultrasound and Radiography. An advanced laboratory caters to the requirements of all the clinical departments and is equipped for routine and advanced investigations in Biochemistry, Clinical Pathology, Serology and Hormone Studies.

With the establishment of the Center for Advanced Biomedical Research and Innovation [CABRI], the diagnostic laboratory services today caters to the needs of patient care supported by evidence of clinical research.

A Student posted in the Thumbay Hospitals for clinical training is required to obey the following "Do's" and "Don'ts":

# 10.3.1 Do's

- Procure the Thumbay Hospital Student Guide Book.\*
- Wear the student ID badge at all times in the hospital.
- Follow the dress code as stated in the handbook. (refer section: 9.1 dress code)
- Maintain punctuality, professional and ethical behavior at all times when posted in the hospital.
- Attend the Orientation program of the hospital and comply with the Infection control & Fire safety guidelines.
- Complete the vaccination / screening record for Hepatitis B & C Virus and other infectious diseases.
- Complete the Basic Life Support (BLS) Certification requirement. (preferable)
- Complete Arabic Language Certification requirement. (for non-Arab students preferable)
- Complete Patient safety Self-assessment Form at the end of each clinical rotation.
- Maintain 80% attendance in the clinics, lectures, Case based discussions / CBL.
- Attend all the CME/CPD programs conducted at the hospital.
- Follow all the hospital rules and regulations to safeguard patient safety and patient care.
- Be responsible for one's personal belongings, and be committed when posted in the clinics and wards.
- Report to the Office of Academic Affairs for any clarifications towards one's learning when faced with a problem.

#### 10.3.2 Don'ts

- DO NOT involve in activities that endanger patient care and safety.
- DO NOT use mobile phones in the clinics and wards.
- DO NOT access the patient information without prior approval. No entries are to be made in the patient's file.
- DO NOT take history or examine a patient without taking prior consent and approval of the patient and the directions from the supervising faculty.
- DO NOT prescribe medications.
- DO NOT show favors to any patient against the rules of the hospital.
- DO NOT discuss the patient information in public places or outside the classroom.
- DO NOT try to complete on your own any clinical rotation that was missed without approval of the Academic Affairs' Office.
- DO NOT loiter in the hospital during the nights and other timings after scheduled training hours.
- DO NOT violate any rules of the hospital.

# 10.3.3 Violation Warning

- First violation will lead to an oral warning.
- Second violation will lead to a written warning.
- Third violation will be discussed in the Students Welfare Committee for disciplinary action which may lead to suspension / discontinuation of the training.

\*Note: All students posted in Thumbay Hospitals are required to procure the **Thumbay Hospital Student Guide Book** which states the rules and regulations of the hospital in detail. Students are required to submit the signed disclaimer form to the Academic Affairs' office after reading the Guide Book.

# 10.4 Student Research

A student who is conducting a research study as part of the course requirement is required to submit a letter from the Provost seeking permission from the Hospital Director, for conducting his / her research work before starting the project.

# 10.5 Office of Academic Affairs

<b>Dr. Meenu Cherian</b> Director – Academic Affairs Telephone No.: 06-746 3333; Ext. 2275, Speed Dial: 2054	Mrs. Aruna Haridas Academic Coordinator Tel: 06 7431333; Ext. 1306
Mr. Celso Viernes	Ms. Mikaela Ledesma
Academic Secretary	Academic Secretary
SKH Hospital (Clinical Site)	Umm Al Quwain Hospital (Clinical Site)
Telephone No.: 06-746 3333; Ext. 2181,	Telephone No.: 06-746 3333; Ext. 2181,
Speed Dial: 2089	Speed Dial: 2159
Ms. Rita Lorly Azarce	Ms. Manjusha Latheesh
Academic Secretary	Academic Secretary
MBBS Program	BPT & Pharm D & Master programs
Telephone No.: 06-746 3333; Ext. 2181	Telephone No.: 06-746 3333; Ext. 2181
Ms. Jean Latoza Gandeza	
Academic Secretary	Mr. Abdul Razak
DMD & BHS Program	Office Assistant, Academic Affairs
Telephone No.: 06-746 3333; Ext. 2181	

# **10.6 Clinical Training Coordinators**

Program	Clinical Training Coordinators
	Dr. Ishwar Chandra Premsagar
	Associate Dean – Clinical
	Department of Neurosurgery, Thumbay Hospital, Ajman
	Telephone No.: 06-746 3333; Ext. 2311, Speed Dial: 2139
	Dr. Pankaj Lamba
MBBS	MBBS Phase III Coordinator
	Department of Ophthalmology, Thumbay Hospital, Ajman
	Telephone No.: 06-746 3333; Ext. 2384, Speed Dial: 2085
	Dr. Lubna Ahmed
	Clinical Site Coordinator, Thumbay Hospital, Ajman
	Telephone No.: 06-746 3333; Ext. 2274

	Ms. Annamma Mathew
ВРТ	BPT Clinical Site Coordinator
	Department of Physiotherapy, Thumbay Hospital,, Ajman
	Telephone No.: 06-746 3333; Ext. 2167
	Dr. Hossam Abdelatty Eid Abdelmagyd
	Associate Dean – Clinical
	Surgical Sciences Department – Dental (Periodontics)
	Gulf Medical University, Ajman
	Telephone No.: 06-7431333; Ext. 1606
DMD	Dr. Praveen Kumar Shetty Bolar
	Clinical Coordinator, Super Specialty Dental Center
	Department of Conservative Dentistry
	· '
	Thumbay Hospital, Ajman
	Telephone No.: 06-746 3333; Ext. 2277
	Dr. Shahbaz Mohiuddin Ghulam
Pharm D	Clinical Pharmacist and Preceptor
	Department of Pharmacy
	Telephone No.: 06-746 3333; Ext. 2233
	Mr. Kiran S Gopinath
	Clinical Site Coordinator
BHS – MLS	Department of Medical Laboratory Sciences – CoAHS
	Gulf Medical University, Ajman
	Telephone No.: 06-7431333; Ext. 1602
	Mr. Albin Babu M Wilson
	Clinical Site Coordinator
BHS - MIS	Department of Medical Imaging Sciences – CoAHS
	Gulf Medical University, Ajman
	Telephone No.: 06-7431333; Ext. 1602
	Ms. Sija Binoy
	Clinical Site Coordinator
BHS - AST	Department of Anesthesia & Surgical Technology – CoAHS
	Gulf Medical University, Ajman
	Telephone No.: 06-7431333; Ext. 1538
	Ms. Remya Radhakrishnan Pillai
	Clinical Site Coordinator
BHS - NS	Department of Nursing Sciences – CoAHS
	Gulf Medical University, Ajman
	Telephone No.: 06-7431333; Ext. 1538

# **STUDENT FINANCE**

#### 11.0. Student Finance

#### 11.1 Student Finance Policy

The University publishes in the Undergraduate Catalog, the Student Handbook and other publications the university's financial policy towards tuition fees and other payments for student services provided.

All tuition fees shall be deposited before completing the registration process either in cash or by Demand Draft / Cheque payable to GMU due on the date of registration for new admissions. Students in the University rolls must pay all fees before commencement of the academic year.

Students who are unable to pay the full tuition fees for registration may pay the tuition fee in two installments after obtaining approval from the management. The first installment shall be payable on the date of completion of registration (dated current) and the second installment shall be paid by a postdated cheque due four months after the first payment. A penalty shall be levied on all returned cheques. The hostel fees along with a security deposit shall be paid in full before occupying the room in the hostel.

Payment for other student services shall be levied in addition to tuition fee towards provision of visa, conduct of examinations, issue of ID and library cards and reissue of a lost ID or library card, lab coat, convocation, issue of certificates verifying bonafides of the student, issue of duplicate academic transcripts / course certificate / duplicate hall ticket; replacement of a lost hostel key and annual rent for lockers provided.

Two or more children of the same family shall be enCourse Titled each to a 5% sibling scholarship in the tuition fees provided they are registered in the same academic year. The request shall be supported by the following documents; an application in person, a copy of the schedules of the course being attended and a copy of their student ID. Other details shall be provided by the Office of Accounts.

The University shall arrange scholarship for students who have secured more than 95% marks in their final higher secondary examinations and if approved by the sponsoring agencies.

# 11.2 Tuition Fees\* [Academic Year 2016 – 2017]

Program	Tuition Fee if Paid Yearly	Tuition Fee if Paid in Two Installments
Pharm D 1 <sup>st</sup> & 2 <sup>nd</sup> Year	AED 60,000/-	AED 30,000/-
Pharm D 3 <sup>rd</sup> Year	AED 55,000/-	AED 27,500/-
Pharm D 4 <sup>th</sup> & 5 <sup>th</sup> Year	AED 50,000/-	AED 25,000/-

<sup>\*</sup> All tuition and other fees are subject to revision by the Gulf Medical University's Board of Governors in accordance with University requirements. Every year, fees are reviewed and subject to revision. However the

amount shall not exceed 15%. As and when fees are revised, the new fees will be applicable to all existing and new students. The amounts shown in this document represent fees as currently approved.

# 11.3 Hostel Fees

# 11.3.1 Women's Hostel (Ajman)

Single Room - Studio	AED 28,000 per year + AED 1000/- Security deposit
Single – 2 Bed Room	AED 24,000 per year + AED 1000/- Security deposit
Sharing – 1 Bed Room	AED 23,000 per year + AED 1000/- Security deposit
Sharing – 2 Bed Room	AED 19,000 per year + AED 1000/- Security deposit

# 11.3.2 Men's Hostel (Ajman)

Single Room - A	AED 25,000 per year + AED 1000/- Security deposit
Single Room - B	AED 24,000 per year + AED 1000/- Security deposit
Sharing – 1 Bed Room	AED 23,000 per year + AED 1000/- Security deposit
Sharing Room	AED 19,000 per year + AED 1000/- Security deposit

# 11.4 Utility Charges

Utility Charges	AED 1,100 (AED 100 per month for 11 months)
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# 11.5 Evaluation Fees

Program	Fees
Pharm D	AED 1,000

# 11.6 Examination Fees

Program	End Semester Examination	Re-sit Examination
Pharm D	AED 750 per semester	AED 150 per course

# 11.7 Course Repeating Fees

Program	Fees
Pharm D	AED 300 per credit

# 11.8 Examination Fees – Repeating Course

Program	Fees
Pharm D	AED 150 per course

# 11.9 Visa Charges

New Visa Fee – Normal Visa Stamping	AED 2,300
Visa Renewal Fee	AED 1,400

Visa Cancellation Fee – Student Outside UAE	AED 300
Visa Cancellation Fee – Student in UAE	AED 100
Urgent Visa Processing fee	AED 100
Emirates ID Fee	AED 170

# 11.10 Caution Deposit

Caution Deposit	AED 1,500 (Refundable)
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# 11.11 Living Expense for International Students

Living Expense for International Students AED 5,500
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Living expense required for the purpose of meeting miscellaneous expenses towards cost of transportation, groceries, clothing & shoes, sports & leisure and other personal expenses.

Students living on their own in rented apartments may add cost of rent per month / annum and utilities and local travel. Those using their own vehicles will be required to factor in oil prices.

# 11.12 Fees for other Services

Description	Fees
Graduation Fee	AED 1,500
Third Party Liability (TPL) Insurance	AED 200 per year
Online Examination	AED 200 per year
Compensatory / Remedial Clinical Posting	AED 250 per session
Protective Antibody Panel Test	AED 800
Infection Screen Panel Test	AED 135
Application for Initial Registration	AED 150
Bonafide Letter (Certificate of true facts)	AED 100
Duplicate copy of Academic Transcript (Mark list)	AED 100
Replacement of lost hostel key / locker key	AED 100
Fee levied for damage to Locker	AED 100
Locker Annual Rent	AED 30
ID Card / Library Card	AED 25
Replacement of lost ID / Library Card	AED 25
Duplicate copy of hall ticket in place of original	AED 25

# 11.13 Transportation Fees

Destination	One Year	Six Months	One Month
Ajman	AED 3,850	AED 2,400	AED 450
Sharjah	AED 4,950	AED 3,000	AED 550
Dubai	AED 6,050	AED 3,600	AED 650

# 11.14 Payment of Fees

Fees must be paid in full before completing the enrollment process either in cash or by Demand Draft / Cheque payable to GMU due on the date of registration for new admissions. Students on GMU rolls must pay all fees before commencement of each semester. However, for those unable to pay the tuition fees in full upon registration, fees may be paid in two installments after approval from the management: the first half to be paid on the date of completing the registration and the second half by postdated cheque due four months after the first payment. Any further delay in payment will attract an additional penalty of a late payment fees. Hostel fees must be paid in full prior to occupying the hostel.

# 11.15 Late Fees and Fines

The name of student shall not be entered into the class register until all dues are paid. Late payment of fees shall invite a penalty of AED 75 per day up to the Add or Drop period for the credit bearing programs / 3 weeks for the non-credit bearing programs. The University shall not be responsible for the attendance deficits of students who fail to complete the payment on time. Any further delay in payment will attract an additional penalty of a late payment fees.

Please note that a penalty of AED 500 is imposed on returned cheques and the returned cheque will not be handed over to the student unless the penalty is paid in cash.

# 11.16 Financial Aid and Scholarships

Two or more children of the same family are entitled each to a 5% sibling scholarship in the fees, when they are registered for the same or different programs in GMU in the same academic year. Students are requested to apply in person with the supporting documents. GMU will assist in obtaining financial aid from charitable agencies or commercial banks for needy students. Further details in this regard may be obtained from the Office of the Accounts Department.

# 11.16.1 Care & Share - Sponsor a Medical or an Allied Health Professional Program

At GMU, it is believed that health is the harbinger of prosperity for the present and future generations. However, it is GMU's experience that many societies worldwide are under serviced in terms of their health parameters owing to an acute shortage of a skilled health workforce. There are many meritorious students who wish to pursue education in the health sector, but are not able to do so because of financial constraints. GMU proposes to make a small contribution in setting this imbalance right through its Care & Share – Sponsor a Medical or an Allied Health Professional Program. This program enables corporate bodies, philanthropists, NGOs, health care providers and agencies to sponsor a student for an internationally recognized

medical or other allied health education programs offered by GMU. Through a Care & Share Program, GMU would like to give an opportunity for the economically weak but academically bright students to enroll in any one of its academic programs.

#### 11.17 Refund of Fees

In the event of a student formally withdrawing from the university, the following refund schedule will apply:

Withdrawal from the University		
One week before the first day of classes	100% refund	
Before the end of the first week of classes	100% refund	
During the second week of classes	50% refund	
During the third week of classes	25% refund	
During / After the fourth week of classes	o% refund	

A Student withdrawing from the program after being admitted to GMU on having completed the registration process by paying the tuition fees will not be refunded the fees amount paid by the enrolled student under any circumstances during or after fourth week of the Academic Year. The above refunds are subject to a deduction of actual bank charges incurred to the university.

#### 11.18 Revision of Tuition and other Fees

All tuition and other fees are subject to revision by Board of Governors in accordance with University requirements.

Every year, fees are reviewed and subject to revision. However the amount shall not exceed 15%. As and when fees are revised, the new fees will be applicable to all enrolled and new students. The amounts shown in this document represent fees as currently approved.

If a student discontinues the academic program for any reason and rejoins / gets readmission in the program after one year or more shall be governed by the tuition and other fees as applicable at the time of his / her re-admission to the program.

**ACADEMIC POLICIES** 

#### 12.0 Academic Policies

# 12.1 Program Completion Policy

All students are expected to study and complete successfully the courses listed in the Plan of Study. The Course Description of the respective courses as mentioned in course syllabi has been provided in the Student Handbook and the Undergraduate University Catalog. For any one degree, all requirements under the terms of any catalog in effect at or after their admission must be met. Candidates must satisfy all university requirements and all requirements established by the faculty members of the program. The individual programs may have higher standards and / or more restrictive requirements as compared to the university minimum requirements.

The university mandates the following general degree completion requirements in order for students to receive their degrees. Each Undergraduate student must:

- Be continuously enrolled in the program from admission to graduation.
- Have satisfied all conditions of his or her admission, such as provisional admission.
- Successfully complete a comprehensive examination or equivalent as determined by the individual degree program.
- Complete the program with an overall score of 70% or higher.
- Submit a thesis or research project, if required by the academic program, to the University that meets the format requirements set forth in the Thesis Manual.

The students shall fulfill the requirements of each course as prescribed, published and made available to the students. The student shall be responsible for attending all the classes and completing the requirements of the chosen program of study. The course completion and degree requirements of each program are published in the respective sections of the Undergraduate Catalog and available online on My GMU student portal at www.gmu.ac.ae.

#### 12.2 Academic Progress Policy

Students are expected to attend all classes as per the schedule notified by their college. The schedules are available online in the respective courses listed under each course semester wise at My GMU. Classroom activities are essential to learning and to the application of knowledge. The student is responsible for knowing and meeting all course requirements, including tests, assignments, and class participation as indicated by the course instructor. The schedules shall be published and prominently displayed on the notice boards in the department and the general notice board of their college and university. It shall also be uploaded and made available on the e-platform MYGMU and the LAN available in the multimedia labs.

The responsibility for making up work missed during an absence rests with the student. Students are encouraged to initiate negotiations with the instructor regarding missed work as early as possible. If a student is unable to attend class on an exam day, the instructor is to be notified in advance.

Students must complete all clinical requirements. If a student is unable to attend a scheduled rotation, the student must notify the instructor prior to the rotation period or at the earliest possible time. Students are responsible for contacting the instructors for make-up work. All leaves must be approved by the Dean for further consideration.

**All leave applications** must be approved by Dean for attendance consideration. The Office of the Dean reserves the right to accept or reject medical certificates after scrutiny of its authenticity.

It is the responsibility of the students to interact with the concerned department to verify and ensure about their attendance records from time to time. The compiled attendance records are downloaded each week and scrutinized for attendance deficits.

In the case of **Clinical rotation**/s, a minimum aggregate of 100% attendance is mandatory for the student to permit them to appear for the professional examination. Even when the reason for absence constitutes approved leave, the minimum aggregate of 80% must be satisfied by attending compensatory postings.

Attendance shall be entered daily by the department in the Student Management System. The comprehensive attendance shall be downloaded and displayed prominently each month and forwarded to the Office of the Dean for information and necessary action.

**Deficits in attendance,** if any shall be noted and brought to the notice of the students / guardians to enable the student to improve the situation. Academic advising shall be offered by the faculty and course coordinators to delineate the cause of the learning deficit and help the students to overcome the contributing problems, if any.

The performance at the class tests / quizzes and mid semester examinations shall be closely monitored to identify students with learning difficulties. Academic advising by the faculty and the course coordinators shall be available at all times to resolve the problem.

The attendance deficits and unsatisfactory performance in the Continuous Assessments held by the departments and the college shall be used as parameters to identify students who are not progressing in the courses.

Students should be regular and punctual at lectures, demonstrations, seminars, practical, fieldwork and other academic activities. They are required to attend all the scheduled classes in each of the prescribed courses.

**Leave on medical grounds** shall be considered only on the recommendation of the Medical Board constituted by the University for a maximum period of 15 days. The Leave application must be supported by a Medical Certificate issued by a licensed physician preferably from any of the GMU affiliated teaching hospitals. A maximum of 15 days leave on medical grounds may be approved for compensating attendance deficits at the end of a course.

A maximum of 10 days Hajj leave will be approved once during the period of study.

In the credit bearing programs, a maximum of 7 to 8 days medical leave will be considered in a semester and a maximum of 15 days for an Academic Year.

Students must provide appropriate documents to support leave of absence for purposes like **renewal of residence permit abroad** within one week after return to the University. The period of absence will not be approved if this regulation is not followed.

Students who miss classes in connection with completion of **GMU Visa formalities** shall be required to submit supporting documents indicating the date and time of absence, within three days of completing the procedure. Such leave shall be approved.

**Prolonged Absence:** Students are required to inform the Dean's office in writing in instances of absence from classes or clinical rotations exceeding 3 months with reasons for the absence. The college reserves the right to remove the names of those students from the rolls for periods exceeding three months and those who fail to inform in writing giving valid reasons for the absence.

The admissions committee of the university will review absences with prior information in writing for up to a period of 1 year, before the student is allowed to rejoin the program. The admissions committee of the university will not consider the case of any student for rejoining the program if the period of absence exceeds 18 months.

The prescribed courses shall be completed within the specified time periods.

The progress that a student makes in achieving the goals and objectives of the curriculum are regularly evaluated.

Formative Assessment shall be a continuous process carried throughout the academic period and consists of weekly or end of the unit class-tests, tutorials, computer based tests and small group discussions.

# 12.3 Grading, Assessment and Progression Policy

Refer Section: 15.0

# 12.4 Online Examination (Exam Soft)

GMU has entered into a license agreement with the Exam Soft Worldwide Inc. USA for usage of their software for item banking, exam delivery, result scoring and item analysis.

From the AY 2012-13 onwards the Mid Semester, End Semester Examination for the academic programs wherever applicable shall have online examination of MCQs using Exam Soft application.

The students are hereby notified that the online examination will be conducted in the Testing Center halls I, II & III and in the Multi Media labs. The schedule of the examination for each program with the details of venue, date & time will be notified by the examination department.

# MISCONDUCT & DISCIPLINARY PROCEDURES

# 13.0 Misconduct and Disciplinary Procedures

# 13.1 Student Misconduct & Disciplinary Procedures

# 13.1.1 Academic Misconduct

The college may discipline a student for academic misconduct, which is defined as any activity that tends to undermine the academic integrity of the institution and undermine the educational process. Academic misconduct includes, but is not limited to the following:

# a. Cheating

A student must not use or attempt to use unauthorized assistance, materials, information, or study aids in any academic exercise, including, but not limited to:

- External assistance in professional or any "in class" examination. This prohibition includes use of books, notes, mobiles, cross talk between students.
- Use of another person as a substitute in the examination.
- Stealing examination or other source material.
- Use of any unauthorized assistance in a laboratory, or during a fieldwork.
- Altering the marks / scores in any way.
- Claiming as his / her work done by others or completed jointly with others.

#### b. Fabrication

A student must not falsify or invent any information or data in an academic work, including records or reports, laboratory results, etc.

# c. Plagiarism and Copyright Violation

Gulf Medical University takes strong exception to plagiarism and copyright violation by students, faculty members or support staff.

# **Plagiarism**

Plagiarism is using the ideas created and words written by others as one's own, and without indicating the source.

Plagiarism encompasses ideas, opinions or theories, facts, statistics, graphs, drawings, images, photographs, videos, movies, music and other similar intellectual property, with the exception of information that is categorized under "common knowledge".

### Plagiarism includes:

- Turning in someone else's work as your own.
- Copying ideas from someone else without giving credit.
- Failing to put a quotation within quotation marks.
- Giving incorrect information about the source of a quotation.
- Changing words by copying the sentence structure of a source without giving credit.
- Copying so many words or ideas from a source to make up the majority of the work.

Students are reminded that ideas written by researchers or other authorities or the content appearing in text books, recommended readings or journals need to be paraphrased before they are included in your project work, assignment reports, posters or manuscripts. Paraphrasing involves reading the original text, understanding the meaning and then presenting the information in your own words: maintaining the original sentence structure with a few words changed in places is not acceptable paraphrasing.

# **Copyright Violation/s**

Intellectual property such as graphs, essays, poems, drawings, images, photographs, videos, movie clips, music tracks, statistics and other similar creations automatically become copyright the day they are made public by the author. Unless the copyright owner has specifically mentioned that the items are copyright free, using any of these in students' own compositions is a copyright violation. The exception to this stipulation is when the user is covered under "fair use", which is the limited use of copyright material for research, scholarship and teaching. In such case, the need for obtaining permission from the copyright owner does not arise.

# **Preventing Plagiarism**

Gulf Medical University subscribes to plagiarism detection software called 'Turnitin'. GMU requires the students to submit their projects, reports, assignments and manuscripts prepared as electronic files through the portal that is made available through the IT Department. While allowing the student to submit the document instantaneously, the software also checks the document for plagiarism. When detected, the percentage of similarity and the site where the original document had appeared will be indicated. As headings of sections and references in the document may be similar to those that appear in other texts, a 15-20% of similarity is taken as falling within the acceptable limit, and is not considered as plagiarism.

Deciding on the percentage of plagiarism allowable is empirical, contingent solely upon evaluator's discretion. The distinction between what is fair use and what is infringement in a particular case will not always be clear or easily defined. There is no specific number of words, lines, or notes that may safely be taken without permission. Acknowledging the source of the copyrighted material does not substitute for obtaining permission.

The extent of plagiarism is only relevant in determining the form and level of sanction.

#### Consequences of Plagiarism

Plagiarism is considered an act of academic misconduct. Plagiarism of any sort or any degree is not condoned under any circumstances, and students convicted of plagiarism after due procedures are liable to punitive action by the university authorities.

#### **Academic Misconduct Procedures**

# (A) Initiation of Proceedings

When a student in a course commits an act of academic misconduct like plagiarism, the faculty member who has detected the misconduct has the authority to initiate academic misconduct proceedings against the student. Before this, the faculty is required to hold an informal meeting with the student concerning the matter. If the faculty member affirms that the student did commit the act of misconduct as alleged, then at the conclusion of the informal meeting, the faculty member is required to report the matter to the Student Welfare Committee in writing.

Upon reviewing the complaint and after enquiry & verification, the committee will forward the report to the College Council presided over by the Dean. On the consensus reached by the Council, the Dean has the discretion to decide whether disciplinary proceedings should be instituted.

A disciplinary proceeding is initiated by the Dean sending a notice to the student who is the subject of the complaint. The notice sent is to inform the student that charges are pending and that a hearing has been scheduled. It shall inform the student of the reported circumstances of the allegedly wrongful conduct.

It also specifies that if the student fails to appear for the meeting, the Dean may reschedule the meeting.

The notice shall inform the student that the College Council may impose straightaway any of the below mentioned disciplinary penalties, if it is reasonably believed that the failure of non-appearance is without a good cause, it may weigh this as a negative factor in future appeals.

# (B) Disposition

When the student appears as required, the Dean shall inform the student as fully as possible of the facts alleged.

If, after discussion and such further investigation as may be necessary, the Dean determines that the violation occurred, as alleged, the Dean shall so notify the student and may impose anyone or a combination of the below mentioned sanctions for facts of academic misconduct. If the student fails to adhere to the sanctions imposed, the student may be subjected to additional sanctions, including suspension or expulsion. The sanctions include lowered or failing grade on the particular assignment or the possibility of an additional administrative sanction, (like the under mentioned) in case the academic misconduct extends to other deeds mentioned below:

- a. A failing grade in the examination, paper, research or creative project;
- b. A specified reduction in the course grade;
- c. Non-inclusion of scores earned in continuous assessment; and

d. Multiple Sanctions: More than one of the sanctions listed above may be imposed for any single violation;

**Reprimand and Warning** - An undertaking is signed by the student not to repeat the offence. The student may face suspension if he / she engages in the same misconduct again or commits any other violation.

**Suspension** - A student may be prohibited from participating in all aspects of college life for a specified period of time.

The student may appeal against the decision of the Dean to the Provost. The appeal for the latter decision rests with the discretion of the Provost.

# Appeal to and Action by the Provost

The Provost shall inquire into the facts of the appeal and shall discuss the matter individually with the student, the faculty member, the Dean and make a decision concerning the merits of the appeal. The Provost may affirm the original decision concerning the disciplinary sanction to be imposed, reverse the original decision and direct that the complaint be dismissed; impose a different sanction, amounting to commutation.

# Appeal to and Action by the President

The President shall inquire into the facts of the appeal and shall discuss the matter individually with the student, the faculty member, the Dean, the Provost and make a decision concerning the merits of the appeal. The original decision concerning the disciplinary sanction to be imposed, may be affirmed, the original decision reversed and directed that the complaint be dismissed or imposed a different sanction, amounting to commutation.

#### 13.1.2 Personal Misconduct

#### 13.1.2.1 Personal Misconduct on University Premises

The college may discipline a student for the following acts of personal misconduct, which occur on college property and its allied teaching sites:

- False accusation of misconduct, forgery, alteration of university / college / individual document (record, identification, etc.).
- Making a false report on emergency / catastrophe.
- Lewd, indecent or obscene conduct, gesture/s and /or remark/s.
- Disorderly conduct, which interferes with teaching or any other college activity.
- Failure to comply with the directions of authorized college officials.
- Unauthorized possession of college and / or others' property.
- Physical damage to University related and / or others' property.

The Committee will place the facts of the case before the Student Welfare Committee, presided over by the Dean, Student Affairs and a decision on the nature of act, and sanction to be imposed is taken. The nature of the act and the sanction to be imposed is reviewed by the Provost, taking into consideration the following:

- (i) Previous act/s of misconduct.
- (ii) Record of repeated act/s of misconduct.

# 13.1.2.2 Personal Misconduct Outside University Premises

The college may discipline a student for acts of personal misconduct that are not committed on college property, if the acts arise from activities that are being conducted off the campus, or if the misconduct undermines the security of the GMU community or the integrity of the educational process/es.

#### **Personal Misconduct Procedures**

# (A) Initiation of Proceedings

A report that a student has committed an act of personal misconduct may be filed by any person; it must be submitted in writing to the Dean, Student Affairs.

After reviewing a complaint, after enquiry & verification, the Dean, Student Affairs will forward the report to the Student Welfare Committee, presided over by the Provost. On the consensus reached by the Committee, the Dean, Student Affairs has the discretion whether disciplinary proceedings should be instituted.

A disciplinary proceeding is initiated by the Provost sending a notice to the student who is the subject of the complaint. The notice sent is to inform the student that charges are pending and that a hearing has been scheduled. It shall inform the student of the reported circumstances of the allegedly wrongful conduct.

It also specifies that if the student fails to appear for the meeting, the Dean, Student Affairs may re-schedule the meeting.

The notice shall inform the student that the committee may impose straightaway any of the below mentioned disciplinary penalties, if it is reasonably convinced regarding the failure of non-appearance is without good cause, this may weigh this as a negative factor in future appeals.

# (B) Disposition

When the student appears as required, the Dean, Student Affairs shall inform the student as fully as possible of the facts alleged.

The student is given a fair opportunity to explain her / his position / views regarding the allegations leveled against her / him.

If, after discussion and such further investigation as may be necessary, the Dean, Student Affairs and members of the committee determines that the violation occurred, as

alleged, the Dean, Student affairs, shall so notify the student and may impose any one or a combination of the below mentioned sanctions for facts of personal misconduct. If the student fails to adhere to the sanctions imposed, the student may be subjected to additional sanctions, including suspension or expulsion. The student may appeal against the decision of the committee to the Provost of the university. The sanctions include:

**Reprimand and warning** - That the student may receive additional sanction/s if the student engages in the same misconduct again or commits any other violation/s.

**Disciplinary probation** is for a specified period of time under conditions specified by the Dean. As a condition of probation, the student may be required to participate in a specific program, such as a counseling program, a program designed, to stimulate good citizenship within the college community, or any other activity which would foster civic participation.

**Restitution** - A student may be required to pay the cost for the replacement or repair of any property/ies damaged by the student.

**Expulsion from University Hostel** - A student may be expelled from university hostel and the student's contract for university hostel may be rescinded.

**Suspension** - A student may be suspended / debarred from participating in all aspects of college life for a specified period of time.

**Expulsion** - A student may be expelled from the university permanently. Furthermore, the student may not thereafter petition for re-admission to the university.

# (C) Appeal to and Action by the Provost

The student may appeal against the decision of the committee to the Provost of the university, who may take any of the following actions:

- Affirm the original decision that the student did commit the alleged act of misconduct.
- Affirm the original decision concerning the disciplinary sanction to be imposed.
- Reverse the original decision that the student did commit the alleged act of misconduct and direct that the complaint be dismissed.
- Set aside the original decision concerning the disciplinary sanction to be imposed and impose a different sanction, amounting to commutation.

# (D) Appeal to and action by the President

The student may appeal against the decision of the Provost to the President of the university, who may take any of the following actions:

- Affirm the original decision that the student did commit the alleged act of misconduct.
- Affirm the original decision concerning the disciplinary sanction to be imposed.
- Reverse the original decision that the student did commit the alleged act of misconduct and direct that the complaint be dismissed.
- Set aside the original decision concerning the disciplinary sanction to be imposed and impose a different sanction, amounting to commutation.

# Repeated Misconduct Procedure (Personal)

In cases of repeated personal misconduct by a student, the Student Welfare Committee will study the advice, recommendation/s and instruction/s imparted by the committee against the student on previous occasions. Serious warnings or disciplinary proceedings against the student by the Student Welfare Committee on earlier occasions constitute enough grounds for the committee to recommend dismissal of the student with immediate effect if the present episode of misconduct warrants such action.

# **Procedures for Handling Misconduct by Student Organizations**

Personal misconduct proceedings and disciplinary proceedings against individual members of a student organization are governed by the procedures otherwise applicable to students alleged to have committed acts of Personal misconduct.

GMU procedures for imposing disciplinary sanctions are designed to provide students with the guarantees of due process and procedural fairness, to ensure equal protection for all students, and to provide for the imposition of similar sanctions for similar acts of misconduct.

# 13.2 Students' Rights and Responsibilities

# 13.2.1 Students' Rights and Responsibilities Policy

The student must become familiar with the academic policies, curriculum requirements, and associated deadlines as outlined in the course syllabus / academic calendar. The academic advisor shall advise the student on all matters related to their program of study and will aid the student in the interpretation of policies whenever necessary.

However, it shall ultimately be the student's responsibility to meet all stated requirements for the degree and the policies related thereof. It is also the student's responsibility to actively utilize their campus email and the university web site, observe netiquette, observe the policies on internet use as published and made available in the Student Handbook as it tends to be a major communication resource and is often the primary form of communication between students.

Gulf Medical University shall maintain an academic environment in which the freedom to teach, conduct research, learn, and administer the university is protected. Students will enjoy maximum benefit from this environment by accepting responsibilities commensurate with their role in the academic community. The principles found herein are designed to facilitate communication, foster academic integrity, and defend freedoms of inquiry, discussion, and expression among members of the university community.

# 13.2.2 Rights in the Pursuit of Education

Students will have the rights:

- To pursue an education free from illegal discrimination and to be judged on the basis of relevant abilities, qualifications, and performance;
- To fair and impartial academic evaluation and a means of recourse through orderly procedures to challenge action contrary to such standard;
- To an academic environment conducive to intellectual freedom; and
- To a fair and orderly disciplinary process.

# 13.2.3 Rights to Access Records and Facilities

Students will have the rights:

- To access their own personnel and education records and to have the university maintain and protect the confidential status of such records, as required by appropriate legal authority;
- To have access to accurate information regarding tuition, fees and charges, course availability, general requirements for establishing and maintaining acceptable academic standing, and graduation requirements.

#### 13.2.4 Rights to Freedom of Association, Expression, Advocacy, and Publication

Students will have the rights:

- To free inquiry and expression;
- To organize and join association/s to promote their common and lawful interests;
- To be able to protest on university premises in a manner which does not obstruct or disrupt teaching, research, administration, or other activities authorized by the university;

# 13.2.5 Rights to Contribute to University Governance and Curriculum

Students have the right through the student representatives, to participate in formulating and evaluating institutional policies.

# 13.2.6 Students' Responsibilities

Students shall be expected to balance these rights with the responsibilities to respect the learning environment for others and for themselves and to make their best effort to meet academic challenges undertaken. Students will be responsible for compliance with the University Code of Conduct.

The standards of professional behavior in the educational settings are related to three domains:

- 1) Individual Performance;
- 2) Relationships with students, faculty, staff, patients and community, others; and
- 3) Support of the ethical principles of the medical profession, as explained below:

# Individual performance:

- Regularly attends educational experiences (i.e. exams, clinics, rounds, small group sessions, appointments at the clinical skills center).
- Adheres to dress code consistent with institutional standards.
- Maintains cordial relationships with students, faculty, staff, patients and community.
- Establishes effective rapport.
- Establishes and maintains appropriate boundaries in all learning situations.
- Demonstrates respect at all times to all parties involved.
- Demonstrates humanism in all interactions
- Respects the diversity of race, gender, religion, sexual orientation, age, disability and socioeconomic status.
- Resolves conflict in a manner that respects the dignity of every person involved.
- Uses professional language being mindful of the environment.
- Maintains awareness and adapts to differences in individual patients including those related to culture and medical literacy.
- Supports ethical principles of the medical profession.
- Maintains honesty in personal and professional transactions.
- Contributes to an atmosphere conducive to learning and is committed to advance scientific knowledge.
- Protects patient's confidentiality while handling health information and related data.

# DOCTOR OF PHARMACY (PHARM D)

# 14.0 Doctor of Pharmacy (Pharm D)

#### 14.1 Overview

Pharm D is bachelor level program spanning over a period of 4 ½ years didactic and 35 weeks of Advanced Pharmacy Practice Experience (APPE). The first two years of the curriculum are designed to educate students in biomedical sciences and behavioral sciences courses. During the third, fourth and fifth years, students concentrate on advanced pharmaceutical studies and management and clinical courses under the strict supervision of qualified faculty members. During the APPE, students will be exposed to the practice of pharmacy in the different medical specialties as part of their clinical experience as they go through the different rotations. The program learning outcomes are aligned to Level 7 of the NQF Emirates (National Qualifications Framework - Emirates).

# 14.2 Vision

Our vision is to be nationally prominent in pharmaceutical education, research and service and merit international recognition for quality in education, research and service.

# 14.3 Mission

The Pharm D program will educate students to become competent pharmacists with specialized knowledge in biomedical and behavioral sciences. The graduates will be dedicated to serve the communities and will carry out their pharmaceutical duties with the highest level of ethical and moral standards. The curriculum will also focus and emphasize on the importance of research and encourage students' participation in research activities.

# 14.4 Goals and Objectives

I. To offer an exemplary entry-level Doctor of Pharmacy degree program based upon the pharmaceutical care model that prepares students for the general practice of pharmacy in all practice settings.

#### **Objectives**

- Ensure that curricular endpoints are being achieved.
- Improve students' skills in problem-solving, critical thinking and communications, both oral and written.
- Continue to develop and implement a comprehensive curricular management and assessment process.
- Utilize both qualitative indicators and quantitative measures to implement curricular improvements.
- Assist in transforming ambulatory practice experiential sites to the pharmaceutical care model (preceptor training).
- Provide information to students. Extensive career counseling and skills to perform in job interviews.

- Achieve a high level of student satisfaction with didactic, laboratory and experiential courses, and with the program as a whole.
- Promote diverse career choices and provide opportunities for post-graduate training and education.
- Create a technology plan that incorporates technology into the academic and administrative functions of the College.
- Provide facilities to train students in Professional Pharmacy Practice settings.
- To acquaint the student to the professional life.
- To enhance clinical practice skills.
- To enhance Industrial Pharmacy Practice skills.
- II. To attract and retain a student body of sufficient number and of high quality that reflects the cultural and ethnic diversity of the community that the College serves.

## **Objectives**

- Increase the student applicant pool through more intensive recruitment, advertising, and targeted mailings.
- Develop promotional materials that enhance the image of the profession and the College.
- Ensure that advertising and promotional efforts are directed toward diverse cultural and ethnic populations.
- Revise the admissions decision process to include variables other than G.P.A., e.g., motivation, communication skills, leadership potential.
- Study the relationship between admissions variables and academic success in the pharmacy program, i.e., predictors.
- Identify retention and persistence rates, and reasons for attrition.
- Develop methods and programs to improve retention.
- Increase financial aid.
- Adhere to enrollment plan that is appropriate to faculty and other resources.
- III. To attract and retain faculty members demonstrating commitment to effective teaching, and the pursuit of scholarship in both pedagogy and disciplinary areas.

## Objectives

- Re-assess plans for faculty members' growth by reviewing teaching needs in the various divisions and placement at experiential sites.
- Implement a more effective faculty recruitment program.
- Develop a mentoring plan for junior faculty.
- Adopt and refine measures to assess and evaluate teaching effectiveness.

- Provide faculty development programs that focus on pedagogy, including innovative teaching methodologies, student assessment techniques, and curriculum evaluation (include volunteer preceptors and adjunct faculty).
- Encourage and provide resources for faculty research and scholarship as measured by peer-reviewed publications, presentations, and other acknowledged means of recognition.
- Support and reward faculty participation in student-sponsored activities.
- Consistent with collective bargaining agreement, foster equitable balanced teaching loads that foster the quality of teaching.
- Identify and nurture faculty leadership.

## IV. To improve and enhance the educational environment of the College.

# **Objectives**

- Create an Integrated Pharmaceutical Care Laboratory.
- Utilize modern classroom with appropriate IT equipment needs.
- Construct Drug information center with customized drug database of marketed drugs in UAE that gives information about drug-drug interaction and provide precautions alerts.
- Provide library resources with particular emphasis on access to electronic references and supporting educational programs.
- Expand the size of the Pharmaceutical Study Center.

# **14.5 Program Learning Outcomes**

#### A. Knowledge

On successful completion of this program the graduate will be able to:

- **A1:** Describe the physicochemical properties, structure and use of drugs obtained from natural and synthetic sources.
- **A2:** Explain the methods involved in drug manufacture with special emphasis on design, formulation, quality control, quality assurance and good manufacturing practices (GMP).
- **A3:** Describe the profile (mechanism, pharmacological actions, dose, dosage regimen, pharmacokinetic properties, interactions, adverse reactions, contraindications etc.) of prescription and nonprescription medication with special emphasis on pharmaceutical care.
- **A4:** List the therapeutic applications, safety profiles and reported herb-drug interactions of commonly used complementary and alternative medications.
- **A5:** Explain the principles of pharmacotherapeutic disease management.
- **A6:** Integrate knowledge of basic, biomedical and pharmaceutical sciences in the management of disease.

#### B. Skill

On successful completion of this program the graduate will be able to:

- **B1:** Perform qualitative and quantitative tests for quality control and screening of pharmaceutical products using modern analytical techniques.
- **B2:** Collect, organize relevant monograph data for the hospital formulary based on therapeutic principles and pharmacoeconomic considerations.
- **B3:** Collect, critically evaluate and interpret literature and develop evidence based therapeutic treatment advice.
- **B4:** Participate actively and make recommendations in the pharmacotherapeutic decision making process.
- **B5:** Monitor patients for adverse effects and develop strategies to manage and ultimately prevent future adverse experiences.
- **B6:** Identify, resolve and develop strategies to prevent all drug related problems in patients.
- **B7:** Evaluate drug utilization pattern in the pharmacy practice setting.
- **B8:** Apply advanced professional communication skills for interaction with patients and other healthcare providers.
- B9: Design and conduct research activities.

# C. Aspects of Competence

#### C1. Autonomy and Responsibility

On successful completion of this program the graduate will be able to:

C1a: Dispense prescriptions appropriately and accurately.

C1b: Monitor and counsel patients to ensure desired therapeutic outcomes.

#### C2. Role in Context

On successful completion of this program the graduate will be able to:

- **C2a:** Exhibit ethical standards and law in the appropriate area of practice.
- **C2b:** Identify the responsibilities of the pharmacist in both product and patient oriented services.
- **C2c:** Demonstrate a basic understanding of the strengths and problems of cultural diversity and the responses of society as they relate themselves to others.
- **C2d:** Develop and implement a pharmaceutical care plan.
- **C2e:** Participate in community healthcare programs and contribute to the development of health care system.

- **C2f:** Participate in professional governance and policy formulation while considering issues affecting the profession of pharmacy.
- **C2g:** Engage in collaborative and interdisciplinary approaches and teamwork for improving population health.

# C3. Self-Development

On successful completion of this program the graduate will be able to:

**C3:** Demonstrate quality of self-assessment and self-directed life-long learning, so as to acquire necessary knowledge, skills and maintain one's competence.

#### 14.6 Program Structure

The Doctor of Pharmacy (Pharm D) is a bachelor program spanning 4 ½ years (9 semester) didactic and 35 weeks of Advanced Pharmacy Practice Experience (APPE).

Students who fulfill the graduation requirements and have successfully demonstrated the achievement of all competencies will be awarded the degree of Doctor of Pharmacy (PharmD).

# The program consists of 204 Credit Hours

SI. No.	Type of Requirements	Credit Hours
I	General Education Requirements	30
	Faculty Requirements	
	1. Pharmaceutics	29
	Pharmacology (including Biochemistry & Microbiology)	
	Pharmacology	15
"	Related to Pharmacology	28
	2. Medicinal Chemistry & Photochemistry	22
	3. Clinical Pharmacy (Pharmacy Practice)	39
	4. Faculty Elective Course Requirements	6
III	Advanced Pharmacy Practice Experiences (APPE)	35
	Total	204

# 14.7 Plan of Study

# 14.7.1 Plan of Study for the 2008 to 2013 batches

# Semester – 1

Course Code	Course Title	СН	LH	NLH	Pre-requisites
GE 110	Composition and Modern English I	3	3	0	None
GE 112	Mathematics for the Biological Sciences	3	3	0	None
GE 114	General Chemistry	3	3	0	None
GE 120	Computer Concepts and Applications	3	2	2	None
PS 111	Pharmacy Orientation	1	1	0	None
PS 131	Principles of Human Anatomy and Physiology I	4	3	2	None
	Semester Total		15	4	

# Semester – 2

Course Code	Course Title	СН	LH	NLH	Pre-requisites
GE 124	Islamic Studies	3	3	0	None
PS 112	Pharmaceutical Calculations and Solution Dosage Forms	3	2	2	None
PS 121	Pharmaceutical Organic Chemistry	4	3	2	GE 114
PS 122	General Pharmacognosy	3	2	2	None
PS 132	Medical Terminology	2	2	0	None
PS 133	Principles of Human Anatomy and Physiology II	3	2	2	PS 131
	Semester Total	18	14	8	

# Semester – 3

Course Code	Course Title	СН	LH	NLH	Pre-requisites
GE 126	UAE Society	3	3	0	None
GE 128	Human Behavior and Socialization	3	3	0	None
GE 130	Composition and Modern English II	3	3	0	GE 110
PS 211	Pharmaceutics and Drug Stability	3	2	2	PS 112
PS 221	Pharmaceutical Analytical Chemistry	3	2	2	PS 121
PS 231	Pharmacology and Therapeutics I	3	2	2	PS 133
PS 232	Biochemistry I	3	2	2	PS 121, PS 131
Semester Total		21	17	8	

# Semester – 4

Course Code	Course Title	СН	LH	NLH	Pre-requisites
GE 210	Professional Communication Skills	3	3	0	GE 110
PS 222	Instrumental Analysis	3	2	2	PS 221
PS 223	Medicinal and Pharmaceutical Chemistry I	4	3	2	PS 221

PS 233	Pathology	3	3	0	PS 133
PS 234	Pharmacology and Therapeutics II	3	2	2	PS 231
PS 235	Biochemistry II	3	2	2	PS 232
	Semester Total	19	15	8	

# Semester – 5

Course Code	Course Title	СН	LH	NLH	Pre-requisites
PS 212	Design and Formulation of Dispersion Systems	4	3	2	PS 211
PS 312	Biopharmaceutics and Pharmacokinetics	3	2	2	PS 211
PS 313	Biostatistics and Research Methodology	3	2	2	None
PS 321	Medicinal and Pharmaceutical Chemistry II	3	2	2	PS 223
PS 331	Pharmacology and Therapeutics III	3	2	2	PS 234
PS 332	Basic Microbiology and Immunology	3	2	2	None
Semester Total		19	13	12	

# Semester – 6

Course Code	Course Title	СН	LH	NLH	Pre-requisites
PS 314	Biopharmaceutics and Pharmacokinetics II	3	2	2	PS 312
PS 315	Pharmaceutical Technology	3	2	2	PS 211
PS 322	Complementary and Alternative Medicine	2	2	0	PS 122
PS 333	Interpretation of Clinical Laboratory Data	3	3	0	PS 235
PS 334	Pathogenic Microbiology and Antibiotics	3	2	2	PS 332, PS 231
PS 335	Bioassay and Drug Screening	1	1	0	PS 331
PS 341	Health Care System and Pharmaceutical Care	2	2	0	None
PS 342	Drug Information and Literature Evaluation	2	2	0	PS 331
	Semester Total	19	15	8	

# Summer Term – 1

Course Code	Course Title	СН	LH	NLH	Pre-requisites
PS 343	Community Pharmacy Training I	3	0	45	None

# Semester – 7

Course Code	Course Title	СН	LH	NLH	Pre-requisites
PS 311	Sterile Dosage Forms	3	2	2	PS 211
PS 411	Clinical Pharmacokinetics and Therapeutic Drug Monitoring	3	2	2	PS 314
PS 414	OTC Drugs and Products	3	2	2	PS 331
PS 445	Pharmacoeconomics [Faculty Elective Course]	3	3	0	None
PS 441	Communication Skills in Pharmacy Practice	2	2	0	None
PS 443	Clinical Pharmacy - Disease and Therapeutic Management I	3	2	2	PS 331
	Semester Total	17	13	8	

# Semester – 8

Course Code	Course Title	СН	LH	NLH	Pre-requisites
PP 446	Physical Assessment	2	0	4	PS 443
PS 415	Professional Pharmaceutical Ethics and Legislations	2	2	0	None
GE 140	Ethics and the Modern World	3	3	0	None
PS 431	Drugs of Abuse and Clinical Toxicology	3	2	2	PS 331
PS 444	Clinical Pharmacy - Disease and Therapeutic Management II	3	2	2	PS 443
PS 416	Clinical Problems in Parenteral Nutrition and Intravenous Therapy [Faculty elective course]	3	3	0	PS 311
PS 447	Medication Errors: Causes, Prevention and Current Issues	2	2	0	PS 414
	Semester Total	18	14	8	

# Summer Term - 2

Course Code	Course Title	СН	LH	NLH	Pre-requisites
PS 448	Community Pharmacy Training II	3	0	45	PS 343

# Semester – 9

Course Code	Course Title	СН	LH	Pre-requisites
PP 542	Pathophysiology and Pharmacotherapy Course: Cardiology	2	2	None
PP 543	Pathophysiology and Pharmacotherapy Course: Psychiatry and Neurology	2	2	None
PP 544	Pathophysiology and Pharmacotherapy Course: Gastroenterology and Nutrition	2	2	None
PP 545	Pathophysiology and Pharmacotherapy Course: Renal Impairments and Drug Monitoring	2	2	None

PP 546	Pathophysiology and Pharmacotherapy Course: Endocrinology, Rheumatology, Obstetrics and Gynecology	2	2	None
PP 547	Pathophysiology and Pharmacotherapy Course: Infectious Diseases and Hematology	2	2	None
PP 548	Pathophysiology and Pharmacotherapy Course: Nuclear Pharmacy and Oncology	2	2	None
PP 549	Clinical Seminar	1	1	None
	Semester Total	15	15	

# Faculty Elective Course [Student selects courses equivalent to 6 credits]

Course Code	Course Title	<b>Credit Hours</b>
PS 412	Dispensing of Medications	2
PS 416	Clinical Problems in Parenteral Nutrition and Intravenous Therapy	3
PS 442	Applied Clinical and Diagnosis Analysis	2
PS 445	Pharmacoeconomics	3
PP 541	Principles of Pathophysiology and Immunology	2

# Advanced Pharmacy Practice Experience (APPE)

Course Code	Course Title	Weeks	Credit Hours	Pre-requisite
CR 542	Drug Information Rotation	5	5	
CR 543	Inpatient Hospital Pharmacy Practice Rotation	5	5	Successful
CR 544	Community Pharmacy Care Rotation	5	5	Completion of
CR 545	Adult Acute Pharmaceutical Care Rotation	5	5	all the courses
	Elective Rotation (Clinical) I	5	5	from semester
	Elective Rotation (Clinical) II	5	5	1 to 9
	Elective Rotation (Non-clinical) III	5	5	
	Total	35	35	

Elective Rotation - Clinical [Student selects two from the following list]					
Course Code	Course Title	Credit Hours			
CR 651	Oncology	5			
CR 652	Infectious Diseases	5			
CR 653	Cardiology	5			
CR 654	Family Medicine	5			
CR 655	Psychiatry	5			
CR 656	Pediatrics	5			

Elective Rotation - Non clinical [Student selects one from the following list]						
Course Code	Course Code Course Title Credit Hours					
CR 671 Pharmaceutical Industry * 5						

CR 672	Disease State Management*	5
CR 673	Nuclear Pharmacy*	5
CR 674	Consulting Pharmacy*	5

<sup>\*</sup> Subject to Availability

Only students with CGPA of 3 and above at the end of  $4^{th}$  year will be permitted to opt for training at sites outside Thumbay Hospitals.

# CH-Credit Hours, LH-Lecture Hours, NLH-Non Lecture Hours

# 14.7.2 Plan of Study for the 2014 & 2015 Batches

## Semester - 1

Course Code	Course Title	СН	LH	NLH	Pre-requisites
GE 110	Composition and Modern English I	3	3	0	None
GE 112	Mathematics for the Biological Sciences	3	3	0	None
GE 114	General Chemistry	3	3	0	None
GE 120	Computer Concepts and Applications	3	2	2	None
PS 111	Pharmacy Orientation	1	1	0	None
PS 131	Principles of Human Anatomy and Physiology I	4	3	2	None
	Semester Total	17	15	4	

#### Semester - 2

Course Code	Course Title	CH	LH	NLH	Pre-requisites
GE 124	Islamic Studies	3	3	0	None
PS 112	Pharmaceutical Calculations and Solution Dosage Forms	3	2	2	None
PS 121	Pharmaceutical Organic Chemistry	4	3	2	GE 114
PS 122	General Pharmacognosy	3	2	2	None
PS 132	Medical Terminology	2	2	0	None
PS 133	Principles of Human Anatomy and Physiology II	3	2	2	PS 131
	Semester Total	18	14	8	

Course Code	Course Title	СН	LH	NLH	Pre-requisites
GE 126	UAE Society	3	3	0	None
GE 128	Human Behavior and Socialization	3	3	0	None
GE 130	Composition and Modern English II	3	3	0	GE 110
PS 211	Pharmaceutics and Drug Stability	3	2	2	PS 112
PS 221	Pharmaceutical Analytical Chemistry	3	2	2	PS 121
PS 231	Pharmacology and Therapeutics I	3	2	2	PS 133
PS 232	Biochemistry I	3	2	2	PS 131, PS 121
	Semester Total	21	17	8	

# Semester - 4

Course Code	Course Title	СН	LH	NLH	Pre-requisites
GE 210	Professional Communication Skills	3	3	0	GE 110
PS 222	Instrumental Analysis	3	2	2	PS 221
PS 223	Medicinal and Pharmaceutical Chemistry I	4	3	2	PS 221
PS 233	Pathology	3	3	0	PS 133
PS 234	Pharmacology and Therapeutics II	3	2	2	PS 231
PS 235	Biochemistry II	3	2	2	PS 232
	Semester Total	19	15	8	

# Semester - 5

Course Code	Course Title	CH	LH	NLH	Pre-requisites
PS 212	Design and Formulation of Dispersion Systems	4	3	2	PS 211
PS 312	Biopharmaceutics and Pharmacokinetics I	3	2	2	PS 211
PS 313	Biostatistics and Research Methodology	3	2	2	None
PS 321	Medicinal and Pharmaceutical Chemistry II	3	2	2	PS 223
PS 331	Pharmacology and Therapeutics III	3	2	2	PS 234
PS 332	Basic Microbiology and Immunology	3	2	2	None
	Semester Total	19	13	12	

# Semester - 6

Course Code	Course Title	СH	LH	NLH	Pre-requisites
PS 314	Biopharmaceutics and Pharmacokinetics II	3	2	2	PS 312
PS 315	Pharmaceutical Technology	3	2	2	PS 211
PS 322	Complementary and Alternative Medicine	2	2	0	PS 122
PS 333	Interpretation of Clinical Laboratory Data	3	2	2	PS 235
PS 334	Pathogenic Microbiology and Antibiotics	3	2	2	PS 231, PS 332
PS 335	Bioassay and Drug Screening	1	1	0	PS 331
PS 341	Health Care System and Pharmaceutical Care	2	2	О	None
PS 342	Drug Information and Literature Evaluation	2	1	2	PS 331
	Semester Total	19	14	10	_

# Summer Term - 1

Course Code	Course Title	СН	LH	NLH	Pre-requisites
PS 343	Community Pharmacy Training I	3	0	45	None
Semester Total					

Course Code	Course Title	СH	LH	NLH	Pre-requisites
PS 311	Sterile Dosage Forms	3	2	2	PS 211
PS 411	Clinical Pharmacokinetics and Therapeutic Drug Monitoring	3	2	2	PS 314

PS 414	OTC Drugs and Products	3	2	2	PS 331
PS 445	Pharmacoeconomics [Faculty elective course]	3	3	0	None
PS 441	Communication Skills in Pharmacy Practice	2	2	О	None
PS 443	Clinical Pharmacy – Disease and Therapeutic Management I	3	2	2	PS 331
	Semester Total			8	

# Semester - 8

Course Code	Course Title	СН	LH	NLH	Pre-requisites
PS 446	Physical Assessment	2	0	4	PS 443
PS 415	Professional Pharmaceutical Ethics and Legislations	2	2	О	None
GE 140	Ethics and the Modern World	3	3	0	None
PS 431	Drugs of Abuse and Clinical Toxicology	3	2	2	PS 331
PS 444	Clinical Pharmacy – Disease and Therapeutic Management II	3	2	2	PS 443
PS 416	Clinical Problems in Parenteral Nutrition and Intravenous Therapy [Faculty Elective Course]	3	3	O	PS 311
PS 447	Medication Errors: Causes, Prevention and Current Issues	2	2	0	PS 414
	Semester Total	18	14	8	

# Summer Term - 2

Course Code	Course Title	СН	LH	NLH	Pre-requisites
PS 448	Community Pharmacy Training II	3	0	45	PS 343
Semester Total		3			

Course Code	Course Title	СH	LH	Pre-requisites
PP 542	Pathophysiology and Pharmacotherapy Course: Cardiology	2	2	
PP 543	Pathophysiology and Pharmacotherapy Course: Psychiatry and Neurology	2	2	
PP 544	Pathophysiology and Pharmacotherapy Course: Gastroenterology and Nutrition	2	2	Successful
PP 545	Pathophysiology and Pharmacotherapy Course: Renal Impairments and Drug Monitoring	2	2	completion of the courses till
PP 546	Pathophysiology and Pharmacotherapy Course: Endocrinology, Rheumatology, Obstetrics and Gynecology	2	2	semester 8
PP 547	Pathophysiology and Pharmacotherapy Course: Infectious Diseases and Hematology	2	2	
PP 548	Pathophysiology and Pharmacotherapy Course: Nuclear Pharmacy and Oncology	2	2	

PP 549	Clinical Seminar	1	1	
Semester Total		15	15	

C H – Credit Hours, L H – Lecture Hours, N L H – Non Lecture Hours

# Faculty Elective Course [Student selects courses equivalent to 6 credits]

Course Code	Course Title	<b>Credit Hours</b>
PS 412	Dispensing of Medications	2
PS 416	Clinical Problems in Parenteral Nutrition and Intravenous Therapy	3
PS 442	Applied Clinical and Diagnosis Analysis	2
PS 445	Pharmacoeconomics	3
PP 541	Principles of Pathophysiology and Immunology	2

# Advanced Pharmacy Practice Experience (APPE)

Course Code	Course Title	Weeks	Credit Hours	Pre-requisite
CR 542	Drug Information Rotation	5	5	
CR 543	Inpatient Hospital Pharmacy Practice Rotation	5	5	Successful
CR 544	Community Pharmacy Care Rotation	5	5	Completion of
CR 545	Adult Acute Pharmaceutical Care Rotation	5	5	all the courses
	Elective Rotation (Clinical) I	5	5	from semester
	Elective Rotation (Clinical) II	5	5	1 to 9
	Elective Rotation (Non-clinical) III	5	5	
	Total		35	

Elective Rotation - Clinical [Student selects two from the following list]				
Course Code	Course Title	Credit Hours		
CR 651	Oncology	5		
CR 652	Infectious Diseases	5		
CR 653	Cardiology	5		
CR 654	Family Medicine	5		
CR 655	Psychiatry	5		
CR 656	Pediatrics	5		

Elective Rotation – Non clinical [Student selects one from the following list]				
Course Code	Course Title	Credit Hours		
CR 671	Pharmaceutical Industry *	5		
CR 672	Disease State Management*	5		
CR 673	Nuclear Pharmacy*	5		
CR 674	Consulting Pharmacy*	5		

<sup>\*</sup> Subject to Availability

Only students with CGPA of 3 and above at the end of 4<sup>th</sup> year will be permitted to opt for training at sites outside Thumbay Hospitals.

# 14.7.3 Plan of Study for the 2016 batch

# Semester - 1

Course Code	Course Title	СН	LH	NLH	Pre-requisites
GE 110	Composition and Modern English I	3	3	0	None
GE 112	Mathematics for the Biological Sciences	3	3	0	None
GE 114	General Chemistry	3	3	0	None
GE 120	Computer Concepts and Applications	3	2	2	None
PS 111	Pharmacy Orientation	1	1	0	None
PS 131	Principles of Human Anatomy and Physiology I	4	3	2	None
Semester Total		17	15	4	

# Semester - 2

Course Code	Course Title	СН	LH	NLH	Pre-requisites
GE 124	Islamic Studies	3	3	0	None
PS 112	Pharmaceutical Calculations and Solution Dosage Forms	3	2	2	None
PS 121	Pharmaceutical Organic Chemistry	4	3	2	GE 114
PS 122	General Pharmacognosy	3	2	2	None
PS 132	Medical Terminology	2	2	О	None
PS 133	Principles of Human Anatomy and Physiology II	3	2	2	PS 131
Semester Total		18	14	8	

# Semester - 3

Course Code	Course Title	CH	LH	NLH	Pre-requisites
GE 128	Human Behavior and Socialization	3	3	0	None
GE 130	Composition and Modern English II	3	3	0	GE 110
GE 210	Professional Communication Skills	3	3	0	GE 110
PS 211	Pharmaceutics and Drug Stability	3	2	2	PS 112
PS 221	Pharmaceutical Analytical Chemistry	3	2	2	PS 121
PS 231	Pharmacology and Therapeutics I	3	2	2	PS 133
PS 232	Biochemistry I	3	2	2	PS 131, PS 121
Semester Total		21	17	8	

Course Code	Course Title	СН	LH	NLH	Pre-requisites
GE 126	UAE Society	3	3	0	None
PS 222	Instrumental Analysis	3	2	2	PS 221
PS 223	Medicinal and Pharmaceutical Chemistry I	4	3	2	PS 221
PS 233	Pathology	3	3	0	PS 133
PS 234	Pharmacology and Therapeutics II	3	2	2	PS 231
PS 235	Biochemistry II	3	2	2	PS 232
	Semester Total		15	8	

# Semester - 5

Course Code	Course Title	СH	LH	NLH	Pre-requisites
PS 212	Design and Formulation of Dispersion Systems	4	3	2	PS 211
PS 312	Biopharmaceutics and Pharmacokinetics I	3	2	2	PS 211
PS 313	Biostatistics and Research Methodology	3	2	2	None
PS 321	Medicinal and Pharmaceutical Chemistry II	3	2	2	PS 223
PS 331	Pharmacology and Therapeutics III	3	2	2	PS 234
PS 332	Basic Microbiology and Immunology	3	2	2	None
	Semester Total		13	12	

# Semester - 6

Course Code	Course Title	СH	LH	NLH	Pre-requisites
PS 314	Biopharmaceutics and Pharmacokinetics II	3	2	2	PS 312
PS 315	Pharmaceutical Technology	3	2	2	PS 211
PS 322	Complementary and Alternative Medicine	2	2	0	PS 122
PS 333	Interpretation of Clinical Laboratory Data	3	2	2	PS 235
PS 334	Pathogenic Microbiology and Antibiotics	3	2	2	PS 231, PS 332
PS 335	Bioassay and Drug Screening	1	1	0	PS 331
PS 341	Health Care System and Pharmaceutical Care	2	2	О	None
PS 342	Drug Information and Literature Evaluation	2	1	2	PS 331
Semester Total		19	14	10	

# Summer Term - 1

Course Code	Course Title	CH	LH	NLH	Pre-requisites
PS 343	Community Pharmacy Training I	3	0	45	None
Semester Total		3			

Course Code	Course Title	CH	LH	NLH	Pre-requisites
PS 311	Sterile Dosage Forms	3	2	2	PS 211
PS 411	Clinical Pharmacokinetics and Therapeutic Drug Monitoring	3	2	2	PS 314
PS 414	OTC Drugs and Products	3	2	2	PS 331
PS 445	Pharmacoeconomics [Faculty elective course]	3	3	0	None
PS 441	Communication Skills in Pharmacy Practice	2	2	0	None
PS 443	Clinical Pharmacy – Disease and Therapeutic Management I	3	2	2	PS 331
	Semester Total		13	8	_

# Semester - 8

Course Code	Course Title	CH	LH	NLH	Pre-requisites
PS 446	Physical Assessment	2	0	4	PS 443
PS 415	Professional Pharmaceutical Ethics and Legislations	2	2	0	None
GE 140	Ethics and the Modern World	3	3	0	None
PS 431	Drugs of Abuse and Clinical Toxicology	3	2	2	PS 331
PS 444	Clinical Pharmacy – Disease and Therapeutic Management II	3	2	2	PS 443
PS 416	Clinical Problems in Parenteral Nutrition and Intravenous Therapy [Faculty Elective Course]	3	3	O	PS 311
PS 447	Medication Errors: Causes, Prevention and Current Issues	2	2	0	PS 414
	Semester Total		14	8	

# Summer Term - 2

Course Code	Course Title	СН	LH	NLH	Pre-requisites
PS 448	Community Pharmacy Training II	3	0	45	PS 343
Semester Total		3			

Course Code	Course Title	CH	LH	Pre-requisites
PP 542	Pathophysiology and Pharmacotherapy Course: Cardiology	2	2	
PP 543	Pathophysiology and Pharmacotherapy Course: Psychiatry and Neurology	2	2	
PP 544	Pathophysiology and Pharmacotherapy Course: Gastroenterology and Nutrition	2	2	Successful
PP 545	Pathophysiology and Pharmacotherapy Course: Renal Impairments and Drug Monitoring	2	2	completion of the courses till
PP 546	Pathophysiology and Pharmacotherapy Course: Endocrinology, Rheumatology, Obstetrics and Gynecology	2	2	semester 8
PP 547	Pathophysiology and Pharmacotherapy Course: Infectious Diseases and Hematology	2	2	
PP 548	Pathophysiology and Pharmacotherapy Course: Nuclear Pharmacy and Oncology	2	2	
PP 549	Clinical Seminar	1	1	
	Semester Total	15	15	

C H – Credit Hours, L H – Lecture Hours, N L H – Non Lecture Hours

# Faculty Elective Course [Student selects courses equivalent to 6 credits]

Course Code	Course Title	<b>Credit Hours</b>
PS 412	Dispensing of Medications	2
PS 416	Clinical Problems in Parenteral Nutrition and Intravenous Therapy	3
PS 442	Applied Clinical and Diagnosis Analysis	2
PS 445	Pharmacoeconomics	3
PP 541	Principles of Pathophysiology and Immunology	2

# Advanced Pharmacy Practice Experience (APPE)

Course Code	Course Title	Weeks	Credit Hours	Pre-requisite
CR 542	Drug Information Rotation	5	5	
CR 543	Inpatient Hospital Pharmacy Practice Rotation	5	5	Successful
CR 544	Community Pharmacy Care Rotation	5	5	Completion of
CR 545	Adult Acute Pharmaceutical Care Rotation	5	5	all the courses
	Elective Rotation (Clinical) I	5	5	from semester
	Elective Rotation (Clinical) II	5	5	1 to 9
	Elective Rotation (Non-clinical) III	5	5	
	Total	35	35	

Elective Rotation - Clinical [Student selects two from the following list]			
Course Code	Course Title	Credit Hours	
CR 651	Oncology	5	
CR 652	Infectious Diseases	5	
CR 653	Cardiology	5	
CR 654	Family Medicine	5	
CR 655	Psychiatry	5	
CR 656	Pediatrics	5	

Elective Rotation – Non clinical [Student selects one from the following list]			
Course Code	Course Title	Credit Hours	
CR 671	Pharmaceutical Industry *	5	
CR 672	Disease State Management*	5	
CR 673	Nuclear Pharmacy*	5	
CR 674	Consulting Pharmacy*	5	

<sup>\*</sup> Subject to Availability

Only students with CGPA of 3 and above at the end of  $4^{th}$  year will be permitted to opt for training at sites outside Thumbay Hospitals.

#### Semester - 1

# GE 110: Composition and Modern English I (3 CH)

This course provides an intensive instruction in writing process focusing on the organization of ideas in well-developed expository paragraphs with some emphasis on developing vocabulary. It prepares students for expository and argumentative essays that will be discussed in Composition and Modern English II (GE 130). Prerequisite: None

# GE 112: Mathematics for the Biological Sciences (3 CH)

This course provides knowledge and skills of mathematics including concepts of calculus needed for students of biological sciences. The course covers real number system, sets and their representations, functions, linear functions, linear inequalities, other simple functions, composite functions, limits as x goes to infinity, increments and rates, limits, continuous functions, the derivative, derivative of power functions, product and quotient rules, derivatives of composite functions, exponential functions, inverse functions, and logarithms, natural logarithms and exponentials, trigonometric functions, limits of trigonometric functions, derivatives of trigonometric functions, inverse trigonometric functions, anti-derivatives, method of substitution, method of partial fractions, trigonometric substitutions, integration by parts, areas under curves, definite integrals, more on areas, volumes of revolution, linear first order differential equations. The objective of the course is to prepare the students to apply principles of mathematics, including functions and their limits, derivatives of functions, integrals and solve first order linear equations to understand biological systems. *Prerequisite: None* 

# GE 114: General Chemistry (3 CH)

The course covers topics related to the different chemical reactions, measurements and figures, electronic structure and periodicity. The chemical bonding, molecular forms, intermolecular bonding and forces are also discussed. In addition to the physical and chemical properties, the common organic reactions with emphasis and focus on the chemical bonding and different reactions of alkanes, cycloalkanes, alkynes, alkenes and aromatic compounds. *Prerequisite: None* 

# GE 120: Computer Concepts and Applications (3 CH)

This course provides knowledge, skills and competencies of relevant software applications, which help the students to improve their professional competence. Students will learn the concepts of computer hardware and software and become familiar with a variety of computer applications, including word processing, multimedia presentations, spreadsheets, databases and Hospital Information Management System. Students will also investigate internet-based applications, working with email and learning how to browse the web.

Coursework also include activities that explore social and ethical issues related to computers. *Prerequisite*: None

# PS 111: Pharmacy Orientation (1 CH)

The course discusses the different roles of pharmacists in both product oriented services and patient oriented services at the different sites of job opportunities that pharmacists might have. Courses, competencies within the curriculum and the expected outcomes will be outlined. Students' associations within the college, roles, activities and mode of participation will also be detailed. *Prerequisite: None* 

# PS 131: Principles of Human Anatomy and Physiology I (4 CH)

The course deals with an integrated knowledge of both the anatomical structure and physiological functions of human body. The anatomy of the human skull and the different systems; muscular, respiratory, digestive, cardiovascular, nervous and reproductive are discussed. The course also includes the structure and function of the normal cell; tissues in general, their different types, microscopic characteristics, locations, distribution and functions in the human body and of the different organ system and their respective roles and function in the organization of the body. The physiology is integrated with anatomy for each system of the human body. Topics which are covered in detail include the organization, regulation and function of the muscular, gastrointestinal, respiratory, cardiovascular, renal, endocrine, nervous and reproductive systems. *Prerequisite: None* 

#### Semester - 2

#### GE 124: Islamic Studies (3 CH)

The course aims to provide knowledge of the concepts and beliefs in Islam that form the basis of Islamic culture. The students are expected to identify the differences, compare values and preferences in Islamic culture with the existing ones. The course consists of a general review of Islam as a religion and as an approach to life. The objective of this course is to enable the student to demonstrate awareness of the effects of culture upon interpersonal communications and interact appropriately to the culture of the colleague/patient/client. *Prerequisite: None* 

## PS 112: Pharmaceutical Calculations and Solution Dosage Forms (3 CH)

The course deals with dispensing of different types of prescriptions, Latin terminology and abbreviations involved, Pharmaceutical calculations needed in prescriptions and the basic technique of compounding simple aqueous and non-aqueous pharmaceutical solution dosage forms. *Prerequisite:* None

# PS 121: Pharmaceutical Organic Chemistry (4 CH)

The pharmaceutical organic chemistry course is aimed to present fundamentals of certain topics in organic chemistry and applications in a brief and suitable manner related to the

pharmaceutical field of study. It covers the pharmaceutical importance of functional groups, aliphatic and aromatic hydrocarbons, alkyl and aryl halides, alcohols, ethers and epoxides, phenols, amines, carboxylic acids and esters, and heterocyclic compounds. The course will emphasize the pharmaceutical importance of these functional groups, their molecular structures and properties, classification, structure, conformations, nomenclature, physical properties, preparation and reactions. *Prerequisite:* GE 114

## PS 122: General Pharmacognosy (3 CH)

The subject Pharmacognosy deals with the general study of important medicinal plants. The study includes their origin, morphology, histology, constituents and uses. The drugs are classified into groups according to their main therapeutic values. This course prepares students to acquire a thorough knowledge of medicinal plants, including their origin, systems of classification, important active ingredients, structures and methods for detection, medicinal uses, preparations and dosage. *Prerequisite: None* 

# PS 132: Medical Terminology (2 CH)

This course describe the most relevant medical terms used in medical and pharmaceutical sciences. Students will learn the Latin prefix and suffix commonly used in medical terms. The course will give emphasis on the mechanism of word-building system from the origin of the term. The course will provide pharmacy students with the basic definitions and explanation for medical terms used for essential medical and pharmaceutical sciences. Students will use Stedman's Medical dictionary software to group medical and pharmaceutical terms as weekly assignments in a computer laboratory. *Prerequisite: None* 

#### PS 133: Principles of Human Anatomy and Physiology II (3 CH)

The course deals with an integrated knowledge of both the anatomical structure and physiological functions of human body. The anatomy of the human skull and the different systems; muscular, respiratory, digestive, cardiovascular, nervous and reproductive are discussed. The course also includes the structure and function of the normal cell; tissues in general, their different types, microscopic characteristics, locations, distribution and functions in the human body and of the different organ system and their respective roles and function in the organization of the body. The physiology is integrated with anatomy for each system of the human body. Topics which are covered in detail include the organization, regulation and function of the muscular, gastrointestinal, respiratory, cardiovascular, renal, endocrine, nervous and reproductive systems. *Prerequisite: PS 131* 

#### Semester – 3

# GE 126: UAE Society (3 CH)

This course focuses on the knowledge related to the nature of the UAE society and its political, geographical, cultural, demographical and social aspects. It studies the perspective of the Emirates Society towards contemporary international changes. This course will allow

the student to explore the perspectives of the Emirates society in a global context. *Prerequisite:* None

# GE 128: Human Behavior and Socialization (3 CH)

An overview of the main topics in general psychology includes biological basis of behavior and mental processes: sensation and perception, learning, motivation, intelligence, human development, personality and behavioral disorders. The course covers sociological concepts such as socialization, social factors, social groups and leadership, culture and health, social security, changing trends of family and community, social trends. It will enable students to demonstrate appropriate human behaviour in social context. *Prerequisite: None* 

# GE 130: Composition and Modern English II (3 CH)

Intensive instruction in writing process focuses on organization of ideas in well-developed expository and argumentative essays with some emphasis on developing vocabulary. It prepares students for professional communication skills (GE 210). *Prerequisite:* GE 110

# PS 211: Pharmaceutics and Drug Stability (3 CH)

The course will discuss the principles of physical pharmacy: physicochemical principles of pharmaceutical systems like-solubility and distribution phenomena, relationship between states of matter; solution properties and thermodynamics as applied to pharmaceutical systems. The solution kinetics of drug degradation, rate processes and reaction order for simple & complex reactions will be discussed. Models for drug stability that predict the effect of formulation and storage factors on expiration date will also be illustrated. *Prerequisite:* PS 112

#### PS 221: Pharmaceutical Analytical Chemistry (3 CH)

The course covers the chemical purity and its control; pharmacopoeial standards and specifications, theoretical basis of quantitative analysis of the pharmaceutical compounds, volumetric methods based on acid-base, oxidation-reduction, precipitation, diazodisation, complexation and non-aqueous titrations and gravimetric method. The practical part deals with the titrimetric and gravimetric analysis and the quantitation of a number of drugs in their pharmaceutical formulations. *Prerequisite:* PS 121

## PS 231: Pharmacology and Therapeutics I (3 CH)

This course describes the general principles of pharmacology with detailed description of pharmacokinetics, pharmacodynamics, adverse drug effects and drug evaluation. It also includes detailed study of drugs acting on the sympathetic and parasympathetic system, respiratory system and autacoids. On completion of the course, students should be familiar with various groups of drugs (classified according to anatomical / therapeutic classification), their mechanisms of actions, adverse effects, indications and contraindications. Particular emphasis is given to prototypical drugs from each group to aid the teaching of the principles of therapeutics. Drugs in current clinical use are generally covered, but other drugs may also

be included, if they demonstrate a principle or a special pharmacological mechanism. *Prerequisite:* PS 133

# PS 232: Biochemistry I (3 CH)

This course is designed to provide the molecular and biochemical foundations necessary for understanding the basis of pharmacotherapeutics. The course involves the study of biomolecular interactions, macromolecular structure and functions, cellular catabolic and anabolic pathways leading to the production of energy, nitrogenous waste, macromolecular building blocks and other cellular components, DNA metabolism, gene expression and biochemical bases of diseases. *Prerequisites: PS 131; PS 121* 

#### Semester - 4

## GE 210: Professional Communication Skills (3 CH)

This course is designed to provide students with the knowledge and skills that are essential for effective professional communication. Topics include audience analysis, organization, persuasion, credibility, and delivery. Ideally, the students should be able to apply these skills in a variety of public speaking situations. *Prerequisite: GE 110* 

# PS 222: Instrumental Analysis (3 CH)

This course describes the basic principles covering instrumental methods of analysis in areas of electrochemical and spectroscopic analysis such as the potentiometry, conductometry, polarography, amperometry, UV–visible spectrophotometry and fluorimetry. The applications of these methods in pharmaceutical compounds, dosage forms and drugs and their metabolites in biological fluids are also included. *Prerequisite:* PS 221

## PS 223: Medicinal and Pharmaceutical Chemistry I (4 CH)

This course is dealing with the relationship between chemical structure and biological action; and the physico-chemical properties of drugs, which affect their formulation, absorption and distribution in the body and include the effects of molecular modifications on receptor binding and metabolism as they relate to clinical response. Metabolism of drugs and factors affecting it will be explained fully. The course also covers several drug classes with special emphasis on their structure-activity relationship, chemical and pharmacological classification, synthesis, pharmacological and mechanism of action, pharmacokinetic and pharmacodynamic aspects. *Prerequisite: PS 221* 

## PS 233: Pathology (3 CH)

This course will introduce the students to the fundamentals of pathology. The course covers characteristics of cell, inflammation, tissue repair, hemodynamic dysfunction, neoplasia, nutritional diseases and pathology of infectious diseases. This course is aimed to provide students thorough knowledge of general principles of pathology, and to prepare students

for better understanding of pharmacotherapeutics of infective and toxicological conditions, as well as for the clinical pharmacy courses. *Prerequisite:* PS 133

# PS 234: Pharmacology and Therapeutics II (3 CH)

This course covers drugs acting on the cardiovascular system, renal system, hematopoietic system and gastrointestinal system with the emphasis on teaching students on bridging the gap between purely basic sciences and clinical sciences to promote a safe and effective drug use optimizing benefits and minimizing risks. With such views in mind, the present course is designed as a clinically oriented subject rather than a purely basic one. Therefore, therapeutic applications of drugs and their adverse effects are emphasized throughout the course. *Prerequisite:* PS 231

## PS 235: Biochemistry II (3 CH)

This course focuses on the topics of bioenergetics, metabolism of carbohydrates, lipids, proteins, energy releasing and energy consuming metabolic processes; the regulation of synthesis and breakdown of sugars, lipids, nucleic acids and amino acids. This course is also designed to provide understanding of biosynthesis of macromolecules and it gives students a solid background for understanding the Interpretation of Clinical Lab Data (PS 333). *Prerequisite:* PS 232

#### Semester - 5

## PS 212: Design and Formulation of Dispersion Systems (4 CH)

This course will introduce the students to the fundamental principles of interfacial phenomena, adsorption, dispersion system, rheology, polymorphism and their impact on the preparation and design of thermodynamically stable heterogeneous dosage form. Suspensions, emulsions and aerosols will be detailed. *Prerequisite:* PS 211

## PS 312: Biopharmaceutics and Pharmacokinetics I (3 CH)

This course is designed to familiarize students with both biological factors and physicochemical characteristics of the drug influence on drug absorption from gastro-intestinal tract; emphasize the importance of dosage form selection and how it affects the clinical outcome. In addition, the course will discuss the pharmacokinetics of drug disposition following one compartment model for different routes of administration. The students will also study the biopharmaceutics of non-oral medication, factors affecting bioavailability of drugs including pharmacokinetic variability, and biopharmaceutics of sustained-release and new drug delivery systems. *Prerequisite:* PS 211

## PS 313: Biostatistics and Research Methodology (3 CH)

The course will prepare the students to use biostatistics and research methodologies. Students will be able to evaluate the appropriateness of research methodologies designed to answer a research question or to test a hypothesis, select an appropriate statistical test,

analyze the data, explain and evaluate the obtained results, and apply the results to decisions about research and practice. Without these skills, pharmacists are dependent upon research interpretations of medical and pharmaceutical writers, product claims, from the pharmaceutical industry, journalistic sources, and popular press. *Prerequisite: None* 

# PS 321: Medicinal and Pharmaceutical Chemistry II (3 CH)

This course is dealing with the chemical structures, nomenclatures, synthesis, interrelation of drug with receptors, structure-activity relationship and metabolites of the different chemical classes, including cardiovascular agents, diuretics, analgesics, antihistamines, drugs acting on autonomic and central nervous systems. The course also covers several drug classes with special emphasis on their structure-activity relationship, chemical and pharmacological classification, synthesis, pharmacological mechanism of action, pharmacokinetics and pharmacodynamic aspects. *Prerequisite:* PS 223

## PS 331: Pharmacology and Therapeutics III (3 CH)

The course covers drugs acting on the central nervous system, and pharmacotherapy of endocrine disorders with the emphasis on bridging the gap between purely basic sciences and clinical sciences to promote a safe and effective drug use optimizing benefits and minimizing risks. With such views in mind, the present course is designed as a clinically oriented subject rather than a purely basic one. Therefore, therapeutic applications of CNS and endocrine drugs and their adverse effects are emphasized throughout the course. *Prerequisite:* PS 234

# PS 332: Basic Microbiology and Immunology (3 CH)

This course deals with the study of the biological characters of different groups of bacteria and viruses, their classification, structure and ultrastructure, nutrition, metabolism, biosynthesis, growth, and genetics. The students are trained to practise universal safety precautions while working in the laboratory using laminar air flow hoods. It also familiarizes the students with the mechanism of action of antimicrobials, antimicrobial sensitivity testing as well as sterility testing. In addition, they are also introduced to the basic principles of immunology. *Prerequisite:* None

#### Semester – 6

# PS 314: Biopharmaceutics and Pharmacokinetics II (3 CH)

This course is dealing with rate processes of drug disposition, derivation of mathematical models to calculate the time course of drug and metabolite concentrations following drug administration. Thus, the quantization of factors affecting the absorption, distribution, and metabolism, and excretion of drugs will be possible. In addition, the course will discuss the pharmacokinetics of drug disposition following one compartment, two compartment and non-linear pharmacokinetic models for different routes of administration. Thus students will

be able to do analysis of drug concentration data sets graphically and using non-linear regression to estimate pharmacokinetic data relevant to dose adjustment.

Prerequisite: PS 312

# PS 315: Pharmaceutical Technology (3 CH)

The course comprises the knowledge of pharmaceutical plant design, quality control, machinery, the theoretical background and practical demonstration of different manufacturing processes like: heat transfer, mass transfer, particle size-analysis, mechanism of mixing, filtration, centrifugation, extraction, evaporation, drying, crystallization, emulsification and packaging technology. *Prerequisite: PS 211* 

## PS 322: Complementary and Alternative Medicine (2 CH)

The course is an overview of micro and macro perspectives of Complementary and Alternative Medicine which will enable the students in making rational decisions while advising patients. Two hours of lectures per week will cover the different types of complementary therapies whose safety, efficacy and toxicity may be unknown. With this knowledge the student will be enabled to make decisions and counsel patients with regard to these therapies. In addition, they will search and evaluate information on alternative medicines and make cost/benefit decisions about the use of a particular alternative medicine for a patient, supporting their decision with evidence and evaluating the validity of the evidence. They will also evaluate the use of alternative medicines in a societal context from perspectives of the health professions, biological and behavioral sciences, business and industry, practitioners, and users. *Prerequisite: PS* 122

# PS 333: Interpretation of Clinical Laboratory Data (3 CH)

This course deals with the study of biochemical and hematological changes occurring in the human body under pathological conditions. Disorders in protein, lipid, and mineral metabolism as well as electrolytes, blood gases and acid base balance are assessed in view of laboratory data. Laboratory work deals with evaluation of biological constituents of blood, urine and their interpretations. *Prerequisite:* PS 235

# PS 334: Pathogenic Microbiology and Antibiotics (3 CH)

The course deals with the role of microorganisms in infectious diseases. The study includes the causative agent, its general characteristics, pathogenicity, pathogenesis, laboratory diagnosis, prevention and control, and treatment of the different bacterial, viral, fungal, protozoal and helminthal infections. Members of the different classes of antibiotics will be covered with respect to mechanism of action, antimicrobial spectrum, and those less prone to microbial resistance that can be used for empirical therapy or first line therapy. *Prerequisites:* PS 332; PS 231

# PS 335: Bioassay and Drug Screening (1 CH)

This course is designed to give the student knowledge about the general principles of bioassay and drug screening. It also deals with methods used in the preclinical drug development. These include general methods used in the screening for a new drug and the determination of the potency using biological objects. The general methods used in the screening and bioassay of drugs on different systems of the body are covered.

Prerequisite: PS 331

## PS 341: Health Care System and Pharmaceutical Care (2 CH)

This course describes the different components of health care system. It covers the evolution of health care to the present status of each healthcare profession and different departments involved in re-engineering an ideal health care system. This course also includes the roles and responsibilities of each component and how they coexist as part of the current health care system. Emphasis will be on preparing modern educated pharmacists who provide rational drug therapy to patients and apply pharmaceutical care. *Prerequisite: None* 

# PS 342: Drug Information and Literature Evaluation (2 CH)

This course is designed to develop the student's competency to select sources of information needed to research a question, find the potential answer, begin to evaluate the information found and ultimately formulate an appropriate response using medical terminology and abbreviations appropriately. The student will gain expertise in utilizing general as well as specialized texts and indexing systems in both print and electronic form. The student will also be able to identify the distinguishing characteristics of the medical/pharmaceutical journals discussed in class and demonstrate proficiency in preparing an abstract. The practical sessions will provide the students with first-hand experience using the various references discussed in class and in conducting computerized literature searches and evaluation. *Prerequisite: PS 331* 

#### PS 343: Community Pharmacy Training I (3 CH)

This course is the first in a two-part series of training at retail pharmacy designed to allow the student the opportunity to develop and use skills based on the knowledge acquired in previous courses. The objectives of this initial training are to develop students' communication skills, knowledge of community pharmacy practice and to become familiar with different trade of the over- the- counter (OTC) and generic names of some drugs available in the market. In addition, students are expected to understand how to respond to commands in the different types of prescriptions. *Prerequisite: None* 

Semester - 7

## PS 311: Sterile Dosage Forms (3 CH)

Physicochemical properties as well as the design and formulation of ophthalmic and injectable dosage forms; including isotonicity, acid-base properties as well as sterilization

principles and techniques will be studied. Basic principles of radiopharmacy and radiopharmaceuticals will also be discussed. The course also includes an introduction on sterile drug delivery systems and their advantages. *Prerequisite:* PS 211

# PS 411: Clinical Pharmacokinetics and Therapeutic Drug Monitoring (3 CH)

The course is a continuation of an earlier course in Biopharmaceutics and Pharmacokinetics II (PS 314) with clinical applications. The course will discuss the pharmacokinetics of drug disposition following two compartment model, multiple dose therapy, and nonlinear pharmacokinetics model for the different routes of administration. The course also enables the student to understand how various disease states alter the pharmacokinetic parameters and how to adjust plasma concentration within therapeutic range. Concept of therapeutic monitoring will be applied on drugs with narrow therapeutic window. *Prerequisite: PS 314* 

## PS 414: OTC Drugs and Products (3 CH)

This course deals with the study of OTC drug treatment, and rational drug selection for common ailments by the pharmacist. The primary aim is to build background knowledge about the use of OTC drugs in retail pharmacy and to interpret this information into the actual counseling process and management. In practical sessions, students will apply the knowledge discussed in theory on real OTC cases to interpret results and give rational counseling management to patients. *Prerequisite:* PS 331

# PS 445: Pharmacoeconomics (3 CH)

This course will enable students to effectively utilize the tools needed to assess the costs and outcomes of medicines and pharmaceutical care services. Students will be able to evaluate and apply health economic and humanistic outcomes research in a knowledgeable and ethical fashion at the population level. In addition, students will be to adopt medicine-focused and disease state-focused approaches to pharmacoeconomic research for the purpose of rational decision making. *Prerequisite: None* 

## PS 441: Communication Skills in Pharmacy Practice (2 CH)

The course emphasizes on the most important skills that enable the student to play a vital role in patient education hence improving patient understanding and compliance. This will help the students to learn the knowledge, skills and practice and will lay the foundation for clear communication and for development of a trusting relationship with the patient. *Prerequisite:* None

# PS 443: Clinical Pharmacy - Disease and Therapeutic Management I (3 CH)

The course places more emphasis on teaching students the knowledge, skills and competence needed to contribute effectively to the care of patients and means of how to monitor the short and long term outcomes of therapy. The course explains the responsibilities and functions of Clinical Pharmacist in the management of diseases. It emphasizes the role of clinical pharmacist in optimization of therapy, minimizing drug

toxicity, maximizing drug efficacy and promoting cost-effectiveness of selected therapy. The etio-pathophysiology, symptoms and pharmacotherapy of cardiovascular, respiratory and gastro-intestinal disorders will be discussed. Case profiles will be discussed to assess the understanding of the pharmacotherapy of above mentioned disorders. *Prerequisite:* PS 331

#### Semester - 8

## PS 446: Physical Assessment (2 CH)

This course is designed to introduce the pharmacy student to the basic principles and techniques of history taking and physical examination. Students in this course will have an opportunity to develop the skills necessary to adequately follow the patient using physical assessment parameters and to monitor drug therapy when appropriate. The student will also have an opportunity to use and demonstrate the skills learned in this class during his or her clerkship rotations. *Prerequisite:* 443

# PS 415: Professional Pharmaceutical Ethics and Legislations (2 CH)

This course aims to discuss the components of the pharmaceutical legislation in the United Arab Emirates. The course will cover the law of the United Arab Emirates concerning pharmacy profession and all the pharmaceutical institutions. In addition, this course will enable students to adhere to the national and international ethical standards as they relate to the profession. *Prerequisite: None* 

#### GE 140: Ethics and the Modern World (3 CH)

This course describes the special ethical problems and issues that arise for professional practitioners in pharmaceutical profession. The course covers the moral qualities and ethics which professionals should bring to practice to address dilemmas faced in professional practice. The knowledge gained in the course will enable the students to safeguard and balance the interests of the professional clients and the members of the community. This course also covers the special moral problems which professionals face during professional practice in a multicultural setting. This course deals with the moral and ethical standards to be implemented in business and other professional field. *Prerequisite: None* 

# PS 431: Drugs of Abuse and Clinical Toxicology (3 CH)

The course covers the concepts of drug abuse, tolerance, dependence and addiction of the most widely abused narcotics and mind-manifesting drugs and means of detection and managements. In addition, the course will give an introduction to occupational and professional clinical toxicology and means of detection and managements.

Prerequisite: PS 331

# PS 444: Clinical Pharmacy - Disease and Therapeutic Management II (3 CH)

This course is a continuation of PS 443 and discusses endocrine disorders, hepatic, pancreatic, autoimmune and rheumatic disorders from both disease and therapeutic

management's point of view. In addition, infectious disease will be covered in the same manner. In practical, case reports / studies will be discussed to assess understanding. The course shall emphasize on teaching students the knowledge and skills needed to contribute effectively to the care of patients and to monitor the short and long term outcomes of therapy. *Prerequisite: PS 443* 

# PS 416: Clinical Problems in Parenteral Nutrition and Intravenous Therapy (3 CH)

This course is designed to explore the scope of clinical problems related to parenteral nutrition and intravenous therapy. Students will be taught the rationale of using various intravenous therapy and parenteral and enteral nutritional therapy with their advantages, disadvantages, complications and monitoring parameters. *Prerequisite:* PS 311

## PS 447: Medication Errors: Causes, Prevention and Current Issues (2 CH)

This course is intended to provide the student with the problems of medication errors in healthcare. Activities will include discussions of significant medication error research, factors which can contribute to errors, drug categories and abbreviations associated with error risks, error detecting methods, case analysis of errors in sample prescriptions, and error prevention methods, including the roles of both the patient and technology. Students will also use the Internet to become familiar with various organizations and list services related to patient safety and to identify and make presentation on medication errors, case analysis of prescription errors, pertinent issues and current events related to this area. *Prerequisite: PS 414.* 

# PS 448: Community Pharmacy Training II (3 CH)

Community Pharmacy II is the second in a two-part series of training at community health care setting. The student will gain an appreciation for the profession of pharmacy as practiced in the community and develop professional attitudes, judgment and skills needed to function in this setting. *Prerequisite:* PS 343.

#### Semester – 9

## PP 542: Pathophysiology and Pharmacotherapy Course: Cardiology (2 CH)

This course provides knowledge of the principles of pathophysiologic, pharmaceutical, pharmacologic, and therapeutic considerations in the care of patients with cardiovascular diseases. Therefore, the students will be able to propose rational pharmacotherapeutic decisions and discuss relevant patient case management issues in practice. *Prerequisite:* Successful completion of all the courses from semester 1 till semester 8.

#### PP 543: Pathophysiology and Pharmacotherapy Course: Psychiatry and Neurology (2 CH)

This course provides knowledge of the principles of pathophysiologic, pharmaceutical, pharmacologic, and therapeutic considerations in the care of patients with psychiatric and neurological disorders. Therefore, the students will be able to propose rational

pharmacotherapeutic decisions and discuss relevant patient care management issues in practice. Prerequisite: Successful completion of all the courses from semester 1 till semester 8.

# PP 544: Pathophysiology and Pharmacotherapy Course: Gastroenterology and Nutrition (2 CH)

This course provides knowledge of the principles of pathophysiologic, pharmaceutical, pharmacologic, and therapeutic considerations in the care of patients with gastrointestinal diseases and improper nutrition. Therefore, the students will be able to propose rational pharmacotherapeutic decisions and discuss relevant patient case management issues in practice. Prerequisite: Successful completion of all the courses from semester 1 till semester 8.

# PP 545: Pathophysiology and Pharmacotherapy Course: Renal Impairments and Drug Monitoring (2 CH)

This course provides knowledge of the principles of pathophysiologic, pharmaceutical, pharmacologic, and therapeutic considerations in the care of patients with renal diseases. In addition, emphases on the application of Clinical Pharmacokinetics in drug monitoring and dose adjustment will be done. Therefore, the students will be able to propose rational pharmacotherapeutic decisions and discuss relevant patient case management issues in practice. Prerequisite: Successful completion of all the courses from semester 1 till semester 8.

# PP 546: Pathophysiology and Pharmacotherapy Course: Endocrinology, Rheumatology, Obstetrics and Gynecology (2 CH)

This course provides knowledge of the principles of pathophysiologic, pharmaceutical, pharmacologic, and therapeutic considerations in the care of patients with endocrinologic, rheumatologic, and obstetrics and gynecology conditions. Therefore, the student will be able to propose rational pharmacotherapeutic decisions and discuss relevant patient case management issues in practice. *Prerequisite: Successful completion of all the courses from semester 1 till semester 8.* 

# PP 547: Pathophysiology and Pharmacotherapy Course: Infectious Diseases and Hematology (2 CH)

This course provides knowledge of the principles of pathophysiologic, pharmaceutical, pharmacologic, and therapeutic considerations in the care of patients with infectious diseases, hematological disorders. Therefore, the students will be able to propose rational pharmacotherapeutic decisions and discuss relevant patient case management issues in practice. Prerequisite: Successful completion of all the courses from semester 1 till semester 8.

# PP 548: Pathophysiology and Pharmacotherapy Course: Nuclear Pharmacy and Oncology (2 CH)

This course will provide the students with knowledge of the principles of carcinogenesis and cancer therapy. It will emphasize the role of clinical pharmacist in therapy optimization, minimizing drug toxicity, maximizing drug efficacy and safety. The influence of pathological

characteristics, symptoms on the pharmacotherapy of neoplastic disorders will be discussed. This course also provides knowledge of the principles and techniques applicable to the preparation, handling and dispensing of radioactive pharmaceuticals and applications to Oncology. Prerequisite: Successful completion of all the courses from semester 1 till semester 8.

# PP 549: Clinical Seminar (1 CH)

This course is designed to enhance clinical training skills in clinical specialties setup under supervision. Students in this course will have an opportunity to coordinate with health care professional, obtain medication related information, identify drug related problems, design a pharmaceutical care plan, and adequately follow the pharmacotherapy outcomes of patients. The student will be able to systematically present and discuss clinical cases relevant to courses covered in semester 9 which include Cardiology, Endocrinology, Gastroenterology, Obstetrics and Gynecology, Infectious diseases, Neurology and Psychiatry. The student will be trained to apply the knowledge, skills and competence for the enhancement of patient outcomes. Throughout the semester, the student will have an opportunity to participate in the ward rounds, participate in clinical case discussions, participate in bed side teaching and classroom case discussions in order to professionally apply the clinical skills. Prerequisite: Successful completion of all the courses from semester 1 till semester 8.

## **Course Description: Advanced Pharmacy Practice Experience (APPE)**

## Advanced Pharmacy Practice Experience –APPE (35 weeks)

The primary goal of the APPE is to educate and train the student in the detection and management of medication-related problems and to assist the student in applying acquired knowledge in the promotion of rational drug therapy. The APPE will be in seven rotations (5 weeks/each training site) in Gulf Medical College Hospital and contracted hospitals community pharmacies. The APPE are designed to provide academically supervised clinical experiences, which will give the student a better knowledge of the current and most appropriate methods of collecting and applying knowledge of the therapeutic and toxic effects of drugs.

## CR 542: Drug Information Rotation (5 CH)

The drug information rotation allows the student to provide drug information services to pharmacists and other healthcare professionals. Emphasis within the rotation is placed on how to receive requests for information properly, conduct a systematic information search, and assimilate the information obtained into an appropriate response form. The student will develop a working knowledge of information resources as well as develop the ability to critically evaluate such resources. The student may also have the opportunity to become involved with the evaluation of drugs for formulary inclusion, quality assurance/drug usage

evaluation activities, news publications, and Pharmacy and Therapeutics (P&T) committee support. *Prerequisites: Successful completion of all courses.* 

# CR 543: Inpatient Hospital Pharmacy Practice Rotation (5 CH)

A clinical experience in an approved hospital pharmacy which provides experience in the provision of pharmaceutical care in an acute inpatient setting. Particular emphasis is placed on the preparation, distribution and control of medications, medication and disease monitoring, and the development of students' ability to communicate with other health care professionals. *Prerequisites: Successful completion of all courses.* 

## CR 544: Community Pharmacy Care Rotation (5 CH)

A structured pharmacy experience in community ambulatory practice emphasizing management and prescription dispensing functions, patient counseling, and over-the-counter medication. *Prerequisites: Successful completion of all courses.* 

## CR 545: Adult Acute Pharmaceutical Care Rotation (5 CH)

In this rotation, students participate in a wide range of clinical services and activities through interactions with patients, physicians and other healthcare teams. *Prerequisites:* Successful completion of all courses.

# CR 651: Oncology (5 CH)

A structured pharmacy experience in an institutional setting dealing with oncology patients. *Prerequisites: Successful completion of all courses.* 

#### CR 652: Infectious Diseases (5 CH)

A structured pharmacy experience in an institutional setting dealing with patients with infectious diseases. *Prerequisites: Successful completion of all courses.* 

# CR 653: Cardiology (5 CH)

A structured pharmacy experience in an institutional setting dealing with cardiology patients. Prerequisites: Successful completion of all courses.

# CR 654: Family Medicine (5CH)

Clinical pharmaceutical health care experience in a family practice setting. Prerequisites: Successful completion of all courses.

#### CR 655: Psychiatry (5 CH)

Clinical pharmaceutical health care experience with psychiatric patients. Prerequisites: Successful completion of all courses.

#### CR 656: Pediatrics (5 CH)

This rotation is designed to provide an introduction to the pathophysiology and pharmacotherapy issues related to infants and children. The rotation will prepare the

student with a knowledge base and problem-solving skills to provide pharmaceutical care to this population. The rotation will provide instruction through lectures, case-oriented group discussions with the instructor and assigned practice problems. *Prerequisites: Successful completion of all courses.* 

# CR 671: Pharmaceutical Industry (5 CH)

A structured pharmacy experience in an industrial pharmacy setting dealing with sales and marketing issues and manufacturing practices. *Prerequisites: Successful completion of all courses.* 

## CR 672: Disease State Management (5 CH)

This rotation is designed to provide an introduction to the pharmaceutical care in the outpatient treatment of one or more disease states including, but not limited to, diabetes, bronchial asthma, hypertension and dyslipidemia. *Prerequisites: Successful completion of all courses.* 

# CR 673: Nuclear Pharmacy (5 CH)

Clinical pharmaceutical health care experience with patients undergoing nuclear pharmacy treatments. *Prerequisites: Successful completion of all courses.* 

# CR 674: Consulting Pharmacy (5 CH)

Clinical pharmaceutical health care experience with a consultant pharmacist. *Prerequisites:* Successful completion of all courses.

## 14.9 Advanced Pharmacy Practice Experience (APPE)

Advanced Pharmacy Practice Experience (APPE) increases the overall Pharm D program credibility and promotes professional excellence. APPEs provide the departments/University a means to validate the university's curriculum in a working environment. The APPE experience gives an insight into the practice of the chosen profession and is in itself a strong motivating factor for the learner to continue and pursue higher education and specialize further in the chosen field of study.

APPEs create opportunities for employment as candidates have had the chance to prove themselves as employees. They give employers the opportunity to evaluate prospective employees.

APPE helps students to have on the job experience under supervision. This provides a real life experience of the future workplace and prepares the graduate for the future work place.

It also serves to provide opportunities to attain higher skills levels appropriate as the student has completed the didactic requirements of the course and is now given

opportunities to further improve his skills and master it before he enters independent practice.

Through written assignments, group discussion sessions, and practical exercises, the academic component of the APPE course complements the experience of the APPE, helping them to evaluate and reflect on their work experience so as to prepare them better for the world of work in the future. At the end of the APPE, it is expected that the candidate will not only understand the world of work in economic policy better, but that he/she will understand his/her potential place better in that world.

The APPE is considered as a valuable clinical practice, a student may experience within a professional environment, allows the students to implement the overall acquired knowledge, enhance their skills, and assess their clinical performances and outcomes. Three important elements distinguish an APPE from a short-term job or volunteer work: the academic background which the candidate brings to the practical site, active reflection and participation during the APPE period, and the final evaluation which must demonstrate if the learning outcomes have been achieved. APPE provides the students with real life experience in the profession of Pharmacy Practice, enhancing their clinical skills and offering the opportunities for potential appointment after graduation.

APPE shall be offered only after successful completion of all 1-9 semester courses. All pharmacy experiences shall be planned and evaluated. Since a successful APPE requires an agreement on the objectives, scope of work, and outcomes among the four parties involved - the student, the assigned clinical faculty member, the clinical site supervisor and the Clinical Director, it is essential that careful planning precedes the direct experience.

#### 14.9.1 Vision

The Advanced Pharmacy Practice Experience (APPE) program will provide the students with an opportunity to enhance their technical and clinical skills within a professional environment and assess their competencies.

#### 14.9.2 Mission

The APPE program aims to refine the technical and clinical skills of the students and prepare them to the professional life while evaluating their competencies and outcomes.

#### 14.9.3 Eligibility

Candidates who have successfully completed all the courses from Semesters 1 to 9.

#### 14.9.4 Objectives

- 1. To enhance the technical and pharmacy practice skills.
- 2. To enhance clinical practice skills.
- 3. To enhance industrial pharmacy practice skills.
- 4. To get acquainted to the professional life.

#### 14.9.5 Outcomes

At the end of the APPE program, the candidate shall be able:

- 1. To effectively monitor drug therapy and function to prevent, detect and correct drug related problems.
- 2. To manage and optimize drug therapy relative to the total needs of the patient while working in collaboration with the physician, nurse and other health professionals.
- 3. To assume certain patient-care drug management responsibilities that may be delegated by the primary care physician.
- 4. To manage a pharmacy at the community and hospital.
- 5. To technically and professionally qualify for employment in a pharmaceutical industry.

## **14.9.6 Specific Learning Outcomes**

Upon completion of the Advanced Pharmacy Practice Experience, each student will be able to:

- Provide technical expertise in drug manufacture and development with special emphasis on drug design and screening, quality assurance and good manufacturing practice using a strong technical foundation in the basic pharmaceutical sciences.
- Participate proactively in the drug use decision making process and make recommendations in the drug use among health care team, including decisions whether drug therapy is appropriate in a specific situation.
- Select the appropriate prescription and/or nonprescription product
- Select the appropriate dosage form for a given patient
- Select the drug product source of supply based upon biopharmaceutic, pharmacoeconomics, and quality control considerations
- Determine the appropriate dosage regimen for a given patient situation
- Prepare the pharmaceutical product for patient use
- Possess self-learning skills, problem solving and critical thinking abilities
- Interpret, analyze and evaluate information in the literature
- Provide, dispense, and/or administer the drug product to the patient
- Provide an effective and integrated management strategy for infectious diseases and participate proactively in rational antibiotic therapy or selection of empirical therapy
- Select and provide medical goods, devices, and services for a given patient situation
- Counsel patients to ensure appropriate pharmaceutical care outcomes, and institute programs to maximize compliance to drug regimens and health promotion behaviors
- Monitor patients for adverse effects and develop strategies to manage and ultimately prevent future adverse experiences
- Monitor patients to ensure that medications are producing desired therapeutic outcomes
- Provide general health education to the public
- Exhibit ethical principles in daily practice

- Apply principles of law in daily practice
- Solve problems and make decisions for a given patient situation
- Use management theory and information technology to plan, organize, direct, and control pharmaceutical care systems and resources
- Develop the skills necessary for life-long learning in order to improve patient outcomes
- Integrate ideas, information, and skills necessary to provide pharmaceutical care
- Communicate effectively with patients and other health care professionals
- Participate in professional governance and policy formulation while considering the issues affecting the profession of pharmacy
- Find, understand, analyze, evaluate and synthesize drug information and then make informed, rational, responsible, and ethical decisions
- Read, write, speak, listen, and use data, media, and computers to send and respond to communications for varied audiences and purposes effectively
- Demonstrate sensitivity and exhibit personal values and ethical principles in professional and social contexts
- Effectively self-assess and satisfy learning needs on an on-going basis
- Demonstrate effective interpersonal and intergroup behaviors in a variety of situations and circumstances
- Develop and implement a pharmaceutical care plan

## 14.9.7 Expected General Ability-Based Professional Skills

- 1. Thinking critically, solving complex problems, and making informed, rational, responsible decisions within scientific, social, cultural, legal, clinical, and ethical contexts.
- 2. Communicate clearly, accurately, and persuasively with various audiences using a variety of methods and media.
- 3. Make rational, ethical decisions regarding complex personal, societal, and professional situations within the context of personal and professional values.
- 4. Demonstrate the ability to place health care and professional issues within appropriate historical, cultural, social, economic, scientific, political, and philosophical frameworks, and demonstrate sensitivity and tolerance within a culturally diverse society.
- 5. Demonstrate an appreciation of the obligation to participate in efforts to help individuals and improve society and the health care system.
- 6. Function effectively in interactions with individuals, within group situations, and within professional organizations and systems.
- 7. Self-assess learning needs and design, implement, and evaluate strategies to promote intellectual growth and continued professional competence.

# 14.9.8 List of Rotations

# **Mandatory Rotations**

Course Code	Title	Weeks	Credit Hours	Pre-requisites	
CR 542	Drug Information Rotation	5	5	Successful	
CR 543	Inpatient Hospital Pharmacy Practice	5	5	Completion of	
	Rotation			all the courses	
CR 544	Community Pharmacy Care Rotation	5	5	from	
CR 545	Adult Acute Pharmaceutical Care	5	F	Semeste	Semester
	Rotation		>	1 to 9	

# Elective Rotations - Clinical [Student selects two from the following list]

Course Code	Title	Weeks	<b>Credit Hours</b>	Pre-requisites
CR 651	Oncology	5	5	C
CR 652	Infectious Diseases	5	5	Successful
CR 653	Cardiology	5	5	Completion of all the courses
CR 654	Family Medicine	5	5	from Semester
CR 655	Psychiatry	5	5	1 to 9
CR 656	Pediatrics	5	5	1 60 9

# Elective Rotations - Non Clinical [Student selects one from the following list]

Course Code	Title	Weeks	<b>Credit Hours</b>	Pre-requisites
CR 671	Pharmaceutical Industry *	5	5	Successful
CR 672	Disease State Management *	5	5	Completion of all
CR 673	Nuclear Pharmacy*	5	5	the courses from
CR 674	Consulting Pharmacy*	5	5	Semester 1 to 9

<sup>\*</sup> Subject to availability

Only students with CGPA of 3 and above at the end of  $4^{th}$  year will be permitted to opt for training at sites outside Thumbay Hospitals.

## 14.9.9 APPE Rules and Regulations

#### 14.9.9.1 Attendance

Attendance is mandatory in all APPE rotations. Students are expected to be present at the practice site at least 8 hours per session. Additional hours beyond those scheduled may be required in order to complete assignments or other activities.

If a student has a personal emergency or is ill, the APPE Site Coordinator and Preceptor must be contacted as early as possible on or before the day in question. In addition, the student must also complete the leave request form as soon as possible.

Requests for time off for any reason other than a personal emergency or illness must be approved at least one week in advance by both the APPE Coordinator and Preceptor. Verification of attendance or a written summary of activities may be required by the APPE Site Coordinator and/or the Preceptor.

Any excused/unexcused absence must be made up at the convenience of the Preceptor. An additional site visit may be required to compensate the days missed as assigned by the APPE Site Coordinator. An incomplete (I) will be assigned until all APPE requirements including assignments/reports/projects etc. have been completed.

# 14.9.9.2 Medical Insurance / Medical Care

All students are required to maintain clinical training-Third Party liability (TPL) medical insurance for the duration of the academic year.

#### 14.9.9.3 Health Status

Each student must provide certification stating that they have no health-related condition that would render him/her unfit to participate in the clinical experience.

#### 14.9.9.4 Immunization Requirements

The following immunizations are required for all students involved in clinical activities in academic programs at the GMU.

- 1. Varicella
- 2. Hepatitis B
- 3. MMR
- 4. TB Screening

These requirements have been established to help protect health care providers and their patients during encounters with one another in clinical settings. The College of Pharmacy will be responsible for developing verification procedures and documenting compliance for its students. The College of Pharmacy requires copies of the vaccination records maintained by Thumbay Hospital, Ajman to keep on file. Students are encouraged to keep copies for future reference.

#### 14.9.9.5 Policy on Educational Exposure to Blood Borne Pathogens

All students shall undergo an orientation program to make them aware of standard protocols to be followed in the event of a percutaneous injury (e.g. a needle stick or cut with a sharp object), contact with mucous membranes or contact with skin (especially when the exposed skin is chapped, abraded, or afflicted with dermatitis, or the contact is prolonged or involving an extensive area) with blood, tissues, or other bodily fluids, which could occur in an educational setting:

- 1. Perform basic first aid
- 2. Contact University Health Service Center
- 3. Obtain baseline laboratory test
- 4. Pick up prophylactic medication if prescribed at the designated pharmacy
- 5. Report injury to supervising clinician/preceptor
- 6. Visit College Health Service Center for follow-up testing

# 14.9.9.6 Confidentiality Policy

All students are required to adhere to and sign the following Confidentiality Policy:

- The student should use confidential Information strictly in connection with, and for the sole purpose of, performing the assigned educational and patient care responsibilities;
- 2. Not disclose or communicate any confidential information to any person or entity whatsoever, except in performance of assigned educational and patient care responsibilities at the site or in the classroom;
- 3. Not disclose to any other person or entity, password(s).
- 4. Always clear confidential information from the terminal screen and sign off the system when tasks are completed;
- 5. Report immediately to the Preceptor any unauthorized use, duplication, disclosure, or dissemination of confidential information by any person, including other students;
- 6. Mask the identity of the patient or employee, and site, when presenting confidential information orally or in writing, as part of the assigned educational and/or patient care duties.

Failure of the student to fulfill any of the obligations set forth in this confidentiality agreement or violation of any of the terms of this agreement will result in disciplinary action.

#### 14.9.9.7 Patient Records

Records bearing patient names or other forms of identification are NOT to be removed from the health care facility or the unit where the patient is located. Policies in force in other institutions must be followed in obtaining medical records.

# 14.9.9.8 Compliance with Practice Site Policies and Procedures

Students must comply with all policies and procedures of the practice site. Preceptors must advise students of site policies during the orientation process.

Students must respect the practice site property. Damage to practice site property may result in disciplinary action by either the site or the college, or both. Students must return all property to the site upon completion of the rotation. Fines assigned by the site for past due items are the responsibility of the student.

#### 14.9.9.9 Dress Code

All students are expected to practice good personal hygiene (clean and well groomed) and wear professional attire while attending rotations. Students are to adhere to site-specific dress codes. A white lab coat should be worn at all times unless instructed otherwise by the Preceptor. Students are required to wear their college identification badge and/or site identification at all times as instructed by the Preceptor.

Appropriate Appearance for Women	Appropriate Appearance for Men
<ul> <li>✓ Business casual or dress pants</li> <li>✓ Skirt or dress (minimum: knee length)</li> <li>✓ Blouse or sweater</li> <li>✓ Closed toe dress shoes</li> <li>✓ Socks or hosiery</li> </ul>	<ul> <li>✓ Business casual or dress pants</li> <li>✓ Clean and pressed shirt</li> <li>✓ Tie (site-dependent)</li> <li>✓ Jacket or sweater</li> <li>✓ Closed toe dress shoes</li> <li>✓ Socks or hosiery</li> </ul>

# 14.9.9.10 Student Responsibilities

- 1. Students should be knowledgeable of and compliant with the material contained in this Manual.
- 2. Students are responsible for contacting the Preceptor one week prior to the start of the APPE.
- 3. All expenses, fees and/or fares incurred during the experience are the responsibility of the student.
- 4. Students are expected to be present at the practice site for a minimum of 8 hours per session.
- 5. Students are responsible for adhering to the APPE schedule and deadlines for assignments.
- 6. Students are expected to behave professionally at all times and should be respectful and courteous at all times.
- 7. Students should be proactive with their APPE rotation, which necessitates active participation and communication.
- 8. Students are encouraged to acknowledge when they do not know something, and seek help whenever necessary.
- 9. Advice or direction from a Preceptor should be viewed as a learning experience. Students should never publicly question the advice or directions of a Preceptor; rather these issues should be discussed in private. Students and Preceptors are encouraged to discuss differences or conflicts with the APPE Site Coordinator.
- 10. Students should take an active role in communicating with physicians, patients, and other healthcare professionals but only under the direct supervision & authorization of their Preceptor.
- 11. Students must abide by the laws and regulations that govern pharmacy practice and seek clarification from the Preceptor when necessary.
- 12. Students are required to submit assessment forms by the due date.

#### 14.9.10 Guidelines

All students are required to adhere to and sign the following Policies of APPE:

- 1. The student is required to qualify in all the courses offered in the prior semesters (1-9 Semesters) before enrolling for the APPE program.
- 2. Vaccination or the evidence of vaccination is mandatory before enrolling for the APPE program. Evidence of immunizations Varicella; Hepatitis B; MMR & TB Screening are required for all students involved in clinical activities.
- 3. It is mandatory to complete 7 rotations over 35 weeks to fulfill the APPE course requirements. Each rotation requires the completion of 5 credits in 5 weeks which is equivalent to 208 hours (40 hrs/week x 5 weeks + 1 day evaluation=208 hrs) of experiential training. Complete the rotation attendance requirements (208 hours) within the rotation time period.
  - The student is required to follow the hospital working timings under the supervision of the Preceptor in charge. The student must inform the preceptor in advance of any expected absence or tardiness. The duration of APPE program is described as follows.

8 hours	40	5 weeks	208 hours/	7 rotations=
per day	hours/week	(26 days)	rotation	(1456 hours)

- 4. Failure of the student to complete the hours of training or stipulated days of training or failure to secure minimum 70 marks for each rotation will be considered as a FAIL grade. The student will be required to repeat the rotation until the required competencies are fulfilled.
- 5. Daily activity and log book are required to be filled and duly verified/signed by the Preceptor in-charge. The report of each rotation along with the daily activity record/ Log book should be submitted to the college of Pharmacy at the end of each rotation. Trainees are required to responsibly maintain their portfolio and adhere to the rotation plan. The evidence of attendance should be maintained by the student as per the rules of the respective hospitals.
- 6. An exit exam will be conducted at the end of the APPE program. The exam will be a preparatory model of the common licensing exams like MOH, DHA, HAAD and NAPLEX. The marks obtained will be used to benchmark the educational standard and not used for the Pharm D grading.
- 7. A maximum of 10 days leave may be permitted on prior approval during the entire APPE training period. Medical leave with adequate medical certificates/admission may be considered as special consideration. Leave should be availed at the end of one rotation or at the beginning of the next rotation. All compensatory rotations should be completed only at the end of APPE program, without disturbing the rotation plan. Extension of rotations beyond stipulated time will attract a fine as applicable by the respective training institution.
- 8. The student is expected to meet their logistics expenses incurred during the APPE. No arrangements for accommodation will be provided by the college or the training institution. The student is responsible for arranging rotations outside UAE.
- 9. Medical Records are NOT to be removed from the health care facility or the unit where the patient is located. Confidentiality policies in force in respective institutions must be followed in obtaining medical records. The student should comply to the HIPAA rules and regulations stated in the following website.http://www.hhs.gov/ocr/privacy/hipaa/understanding/training/index.html
- 10. All students are expected to practice good personal hygiene (clean and well groomed) and wear professional attire while attending rotations. Students are required to adhere to site-specific dress codes.
- 11. Students should take an active role in communicating with physicians, patients, and other healthcare professionals but only under the direct supervision & authorization of their Preceptor.
- 12. Students must conduct themselves in a professional manner at all times.

# 14.9.11 Student Behavior and Academic Integrity

The student must become familiar with the academic policies, curriculum requirements, and associated deadlines as outlined in the University catalog. The academic advisor shall advise the student on all matters related to their program of study and will aid the student in the interpretation of policies whenever necessary.

However, it shall ultimately be the student's responsibility to meet all stated requirements for the degree and the policies related thereof. It is also the student's responsibility to actively utilize their campus email and the university website, observe etiquette, observe the policies on Internet use as published and made available in the Student handbook as it tends to be a major communication resource and is often the primary form of communication between students.

If a student commits a minor violation of site policies and procedures, the preceptor is asked to inform the student of the violation. The student shall be expected not to repeat the violation.

If a student commits a major violation of site policies and procedures or repeats a minor violation, the preceptor is asked to contact the APPE Site Coordinator to discuss the case.

# 14.9.12 Recording your experience: Consider ways to record your APPE experience

Keep a daily diary or a log book to record your daily clinical APPE training experience. This will help to review and discuss the different cases with your APPE site supervisor, APPE Site coordinator, Academic coordinator, other clinical faculty members as well as the other students to share their opinions and expertise.

In addition to the competency check sheets (1 per rotation), the student will maintain a record of examples of work completed at a given rotation. Students should document their achievement of the stated competencies. Examples that can be included in a portfolio are: patient profiles and care plans (maintaining patient confidentiality), patient presentations, in-service presentations or handouts, drug monographs, articles reviewed and presented, patient education material created by the student, ADR reporting form, Drug interaction reporting form, patient counseling form, intervention form, Medication error and incidence reporting form and other projects deemed appropriate by student or preceptor. The student should use tabbed dividers to separate work completed during each rotation. Under each tab, the student should include a competency check sheet for each rotation.

#### 14.9.13 Orientation

Students are to contact the preceptor prior to the first APPE visit to confirm arrangements. Students must provide the preceptor and APPE Site Coordinator with a copy of their respective eligibility documents once available.

Suggested Orientation Outline and Content:

- 1. Review of rotation outcomes
  - a. Preceptor's expectations and contact information
  - b. Student's expectations and contact information
  - c. Daily responsibilities (Students and Preceptors)
  - d. Assessment procedure and timeline
- 2. Orientation to the practice site: hours of operation, acceptable / prohibited electronic devices (cell phones), staff introductions and roles, etc.
- 3. Pharmacy department policies and procedures.
- 4. Available resources: drug information references, clinical specialists, etc.
- 5. Use of site resources: photocopier, computers, telephones, etc.

Use of pharmacy department equipment and safety requirements: refrigerators, counting machines, balances, etc.

#### 14.9.14 Written Report

This process of final preceptor evaluation starts after the student first does a self-assessment of his rotation by submission of a written report (3000-4000 words).

The report will include the outcomes achieved by the student during the rotation. The student will describe his experiences during the particular rotation and describe his view of the learning process. This report is mandatory and shall be evaluated by the Preceptor well in advance before the final evaluation begins. The student may list the skills and competencies he / she has accomplished during the experiential learning and the type of competencies he / she wishes to obtain in the long time continual learning.

The student is required to suggest or implement innovative ideas in the work area. The student will be provided due marks as reward for the individual contributions or quality improvement measures identified, suggested or implemented during the training rotation.

The student is also welcome to positively criticize the particular rotation with respect to the quality of the rotation and should suggest necessary improvement measures that may improve the quality of future training in that particular rotation.

The report may be handwritten or typed in A4 sized paper with signature, date and should not exceed 3000 words.

#### 14.9.15 Exit Examination

At the end of all the APPE rotations, the student is expected to appear for an End Point Assessment Exam. Exit exam is mandatory for all the students at the end of APPE rotations before the graduation.

The Exam will evaluate the scholarly status of the student in relation to the various licensing requirements of the country. This exam will be considered as a bench mark evaluation to assess the overall performance of the student in the Pharm D program. The exit exam will be designed according to the UAE Licencing board exams. The topics of the exam will include all the professional pharmacy practice subjects which include Pharmaceutical Calculations, Medicinal Chemistry, Drug Formulation, Complementary and Phytopharmacy,

Pharmacology, Clinical Pharmacy, and Pharmacotherapeutics. Students who score in the first three rank will be provided a special certificate of recommendation.

#### 14.9.16 Student Portfolio

The process for student outcomes development includes a competency check sheet and a student portfolio.

# 14.9.17 Competency Check Sheet

For each rotation, students will use a competency check sheet. The purpose of this form is to communicate to both students and preceptors the minimum competencies to be achieved and documented across all rotations during this year. Use of this form can assist students in developing skills and receiving feedback from preceptors. It is not expected that students will be able to demonstrate competence of all outcomes at all rotation sites. However, by the end of the ten-month clinical rotation period, students should have the opportunity to demonstrate the minimally expected performance of knowledge and skills in all areas. Therefore, this form is to be used by the student to help plan to achieve all competencies during the seven rotations.

In addition to the competency report (1 per rotation), the student will maintain a portfolio and notebook (Log-book) of examples of work completed at a given rotation. Students should document their achievement of the stated competencies. Examples that can be included in a portfolio are: patient profiles and care plans (maintaining patient confidentiality), patient presentations, in-service presentations or handouts, drug monographs, articles reviewed and presented, patient education material created by the student, ADR forms, Drug interaction reporting forms, patient counseling forms, intervention forms, Medication error and incidence reporting form and other projects deemed appropriate by student or preceptor. The student should use tabbed dividers to separate work completed during each rotation. Under each tab, the student should include a competency check sheet for each rotation. Preceptors working with students during the APPE program should thoroughly review the portfolio and the Competency Check Sheet to determine whether the student has achieved the student competencies. During this time, any areas of deficiency should be addressed, or if necessary, the course faculty should be consulted. At the end of the student's rotations, a copy of the Mid-Point Evaluation and the Final Evaluation should be sent to the Office of the Dean, College of Pharmacy.

#### 14.9.18 Portfolio Review Process

On the first day of each rotation, the student will provide his/her student portfolio to his/her preceptor. The student and preceptor should discuss the student's strengths and weaknesses, as well as review the competency check sheet to develop a plan for achievement of specific competencies during the rotation. The portfolio should be returned to the student to maintain during that first week.

# 14.9.19 Self-assessment

During the first week, the student should use the competency check sheet to assess his/her own development toward achieving the intended competencies. The form should be completed by the beginning of the last week of the rotation.

#### 14.9.20 Preceptor Assessment of Portfolio

The preceptor will again review the portfolio during the last week of the rotation. The student and preceptor should review together the competency check sheet and discuss areas where the student's skills have improved, as well as areas the student needs further skill development in subsequent rotations. Appropriate remarks should be made on the competency check sheet as well as the supporting documents so that the next preceptor may easily assess the student's level of performance.

#### 14.9.21 Final Evaluation of Portfolio

Students will review the student portfolio and discuss progress toward competency achievement. The student's future scheduled rotations will then be reviewed to be certain that the student will have the opportunity to achieve all student outcomes during the remaining assigned rotations. The student will receive a sheet documenting any areas of deficiency and the future rotations where these deficiencies should be satisfied.

# 14.9.22 Preparation for the Final Evaluation

During APPE program, students are expected to continue to develop skills to become self-directed lifelong learners. In preparation for the Midterm Portfolio Review, the student should conduct a self-assessment of competencies achieved and competencies remaining to be satisfied. During the discussion with the portfolio reviewer, the student should be prepared to discuss how they have achieved the competencies listed and support this with documentation in their portfolio. The Student Guide for the Competency Check Sheet Summary will provide assistance in this process.

Under the major heading of Provide Patient Care, one item under implementing the patient care plan relates to documenting interventions and outcomes. The student should have examples of chart notes (e.g. med history, patient counseling, pharmacokinetic recommendations, other monitoring), other forms to communicate recommendations, medication reconciliation forms, documentation of interventions in health system program, and ADR/ME reporting. Students do not necessarily need examples of every item listed but should have a variety of items to document their participation in patient care.

#### 14.9.23 Examples of Student Activities During APPE Rotations

- Formal patient case presentations
- Journal club presentations including review of pertinent articles for pharmacists
- Formal written drug information responses

- Pharmacy and therapeutics drug monographs
- Monitor drug interactions, Adverse event reports
- Formal in-service presentations regarding new treatments
- Topic discussions
- Formal research or writing projects
- Patient specific monitoring and evaluation
- Health promotion/disease prevention fair
- Grand rounds (medical or pharmacy)

# GRADING, ASSESSMENT, PROGRESSION AND COMPLETION POLICIES

# 15.0 Grading, Assessment, Progression and Completion Policies

# 15.1 Grading Policy

15.1.1: Grading Policy for the 2008 to 2010 Batches

Classification	Marks Scored in Percentage	Letter Grade	Grade Value
	90 - 100	Α	4
	85 - 89	B+	3.5
Pass	80 - 84	В	3
	75 - 79	C+	2.5
	70-74	C	2
Probation	60-69	D	1
Fail	< 60	F	0

# 15.1.2: Grading Policy from the 2011 Batch onwards

Classification	Marks scored in Percentage	Letter Grade	Grade Value
	90 - 100	Α	4
	85 - 89	B+	3.5
Pass	80 - 84	В	3
	75 - 79	C+	2.5
	70 - 74	С	2
Fail	< 70	F	0

# 15.2 Assessment Policy

Assessment shall be both formative and summative

#### 15.2.1 Formative Assessment:

This is a continuous process carried throughout the period of study and consists of weekly or end of unit quizzes, tutorials, interactive computer-based tests, and feedback during small group discussions.

#### 15.2.2 Summative Assessment:

Theory examination will be in the form of essays, SAQs, MCQs and EMIs; and MEQs. The practical examination will be in the form of experiments / laboratory exercises/ OSPEs and OSCEs. Viva Voce will form a part of the practical examination.

#### 15.3 Progression Policy

Normal duration of the program shall be 4 ½ years (9 semester) didactic and 35 weeks of Advanced Pharmacy Practice Experience (APPE). Each semester is made up of about 15 weeks. Maximum Permissible duration of the Pharm D course is 10 years.

The program is credit-based. 6-10 courses are offered in different semesters. Each course carries a specified number of credit hours. A student must earn a GPA of 2.0 or above in each

of the courses offered in a semester and a CGPA of 2.0 to successfully complete that semester.

Academic Probation is applicable to any student who scores **CGPA** less than **2.0** in any semester during the program study. A maximum of 2 retakes is available to complete the course in the semester where academic probation is indicated. Non-completion of the course in any semester within the specified retakes limit shall result in dismissal of the student from the program.

If in any of the courses he/she fails to earn a GPA of 2.0, and that course is a prerequisite for a course(s) in the subsequent semesters, he /she shall not be allowed to register for that course.

At any time the credit load in any semester should not exceed 24 credits. Students who have a CGPA of less than 2.0 shall not be permitted to register for new courses until they have successfully completed all previous failed courses.

Only those students who have successfully completed all the courses till 8 shall become eligible to register for semester 9.

Only those students who have successfully completed the semester 1 to 9 shall become eligible to commence their APPE.

A student who discontinues the academic program for any reason and rejoins the program at a later date, shall be governed by the rules, regulations, courses of study and syllabi in force at the time of his/her rejoining the program.

#### **15.4 Completion Policy**

All students are expected to study the program and course details provided in the student handbook and undergraduate catalog. For award of the degree all requirements under the terms of any catalog in effect at or after their admission must be met. Candidates must satisfy all university requirements and program requirements established by the faculty of pharmaceutical science. The individual programs may have higher standards and / or more restrictive requirements as compared to the university minimum requirements.

The university mandates the following general degree completion requirements in order for students to receive their degrees. Each graduate student must:

- Be continuously enrolled in the program from admission to graduation.
- Have satisfied all conditions of his or her admission, such as provisional admission.
- Successfully complete a comprehensive examination or equivalent as determined by the individual degree program.
- Submit a thesis or research project, if required by the academic program that meets the format requirements set forth in the College Thesis Manual.

The students shall fulfill the requirements of each course as prescribed and published and made available to the students. The student shall be responsible for attending all the classes and completing the requirements of the chosen program of study.

# Specific Completion Requirements of the Pharm D Program include:

- Completion of 204 credits
- A minimum CGPA of 2.0
- A minimum pass marks of 70% (Grade C) for each course
- A minimum marks of 60% (Grade D) for progression only (2008 2010 batches)

The Gulf Medical University confers degrees and issues statements of attestations on fulfilling all course completion requirements of the program for which the student is registered.

Only students who have successfully completed their degree requirements by the end of the program for which they applied to graduate are entitled for conferral of degrees. In witness of the degree conferred, a statement of graduation is entered in the permanent records of the graduates and their degrees are released. Such students can proceed to receive their degree certificates and participate in the convocation ceremony.

#### **15.5 Appeal Policy**

A candidate who fails in any subject in the professional examination can appeal for retotaling. No revaluation shall be allowed under any circumstances. Applications for retotaling should be made within 30 days after the publication of results. The Dean Assessment & Evaluation shall appoint a member of the examination board for review and retotaling. If any error is noticed, the correction and amendment shall be made by the Dean, Assessment & Evaluation.

#### **15.6 Attendance Policy**

The 100% attendance is mandatory for fulfillment of credit requirements. A student must attend all scheduled lectures, practical, tutorials, class tests or any other form of teaching learning activities. In case, if a student is unable to attend the classes due to medical reasons, renewal of residence permit abroad, Hajj leave etc. a waiver of up to a maximum of 20% attendance will be considered by the attendance review committee, subject to the submission of medical certificate or any other supporting documents related to the absence from the class. In case the attendance is below 80% in any course, this will be treated as nonfulfillment of the credit hour requirement and F grade will be awarded automatically and the student shall be asked to register again for the course.

#### **15.7 Continuous Assessment**

The students will be evaluated for their participation and performance in class, quizzes, tutorial, assignments, lab work, practical assessments, class tests and mid semester examinations, which shall contribute to both continuous and summative assessments.

# WEEKLY TEACHING SCHEDULE

# 16.0 Weekly Teaching Schedule

# 16.1 Semester – 1

Time	Sunday	Monday	Tuesday	Wednesday	Thursday	
08:30 - 09:30 AM	Mathematics for the Biological Sciences (L1)	Self-Study	Computer Concepts and Applications (L1)	Self-Study	General Chemistry (L1)	
09:30 - 10:30 AM	Principles of Human Anatomy and Physiology I (L1)	Self-Study	Composition and Modern English I (L1)	Self-Study	Self-Study	
10:30 – 11:00 AM			BREAK			
11:00 AM - 12:00 Noon	Principles of Human Anatomy	Computer Concepts and Applications (L2)	Pharmacy Orientation	Computer Concepts and	Principles of Human Anatomy and Physiology I (L2)	
12:00 - 01:00 PM	and Physiology I (P1)	Self-Study	Self-Study	Applications (P1)	Principles of Human Anatomy and Physiology I (L3)	
1:00 – 1:30 PM	BREAK					
01:30 - 02:30 PM	Self-Study	Composition and Modern English I (L2)	Self-Study	General Chemistry (L2)	General Chemistry (L3)	
02:30 - 03:30 PM	Mathematics for the Biological Sciences (L2)	Composition and Modern English I (L3)	Self-Study	Mathematics for the Biological Sciences (L3)	Self-Study	

L – Lecture, P - Practical

# 16.2 Semester – 2

Time	Sunday	Monday	Tuesday	Wednesday	Thursday
08:30 - 09:30 AM	Self-Study	General Pharmacognosy (L1)	Pharmaceutical Calculations and Solution Dosage Forms (L2)	Self-Study	Self-Study
09:30 - 10:30 AM	Pharmaceutical Organic Chemistry (L1)	Self-Study	Self-Study	Islamic Studies (L3)	Medical Terminology (L2)
10:30 – 11:00 AM			BREAK		
11:00 AM - 12:00 Noon	Pharmaceutical Calculations and	Islamic Studies (L1)	General Pharmacognosy (L2)	Pharmaceutical Organic Chemistry (L2)	Principles of Human Anatomy and Physiology II (L2)
12:00 - 01:00 PM	Solution Dosage Forms (P1)	Pharmaceutical Calculations and Solution Dosage Forms (L1)	Principles of Human Anatomy and Physiology II (L1)	Medical Terminology (L1)	Pharmaceutical Organic Chemistry (L3)
1:00 – 1:30 PM			BREAK		
01:30 - 02:30 PM	Self-Study	Self-Study	General Pharmacognosy	Principles of Human Anatomy	Pharmaceutical Organic Chemistry
02:30 - 03:30 PM	Self-Study	Islamic Studies (L2)	(P1)	and Physiology II (P1)	(P1)

L – Lecture, P - Practical

# 16.3 Semester – 3

Timings/Days	Sunday	Monday	Tuesday	Wednesday	Thursday
08:30-09:30 AM	Biochemistry-l	Pharmaceutics	Self-Study	Pharmacology	Pharmaceutical
09:30-10:30 AM	(P1) and Drug Stability (P1)	Pharmacology and Therapeutics- I (L1)	and Therapeutics- I (P1)	Analytical Chemistry (P1)	
10:30 - 11:00 AM			BREAK		
11:00 AM-12:00 PM	Pharmaceutics and Drug Stability (L1)	Composition and Modern English-II (L1)	UAE Society (L1)	UAE Society (L2)	UAE Society (L3)
12:00-01:00 PM	Pharmaceutical Analytical Chemistry (L1)	Biochemistry-I (L1)	Pharmaceutical Analytical Chemistry (L2)	Composition and Modern English-II (L3)	Biochemistry-I (L2)
1:00 – 1:30 PM			BREAK		
01:30-02:30 PM	Self-Study	Composition and Modern English-II (L2)	Pharmacology and Therapeutics- I (L2)	Self-Study	Pharmaceutics and Drug Stability (L2)
02:30-03:30 PM	Human Behavior and Socialization (L1)	Self-Study	Human Behavior and Socialization (L2)	Self-Study	Human Behavior and Socialization (L3)

L – Lecture, P - Practical

# 16.4 Semester - 4

Time	Sunday	Monday	Tuesday	Wednesday	Thursday
08:30 - 09:30 AM	Professional Communication Skills (L1)	Self-Study	Medicinal and Pharmaceutical Chemistry I (L1)	Pharmacology and Therapeutics II (L1)	Pharmacology and Therapeutics II (L2)
09:30 - 10:30 AM	Self-Study	Professional Communication Skills (L2)	Professional Communication Skills (L3)	Instrumental Analysis (L1)	Self-Study
10:30 - 11:00 AM			BREAK		
11:00 - 12:00 Noon	Biochemistry II (P1)	Medicinal and Pharmaceutical Chemistry I (L2)	Self-Study	Instrumental Analysis (L2)	Biochemistry II (L2)
12:00 - 01:00 PM	(F1)	Medicinal and Pharmaceutical Chemistry I (L3)	Pathology (L1)	Biochemistry II (L1)	Self-Study
1:00 - 1:30 PM	BREAK				
01:30 - 02:30 PM	Medicinal and	Pharmacology and	Self-Study	Pathology (L2)	Instrumental
02:30 - 03:30 PM	Pharmacalifical	Therapeutics II (P1)	Self-Study	Pathology (L3)	Analysis (P1)

L – Lecture, P - Practical

# 16.5 Semester – 5

Time	Sunday	Monday	Tuesday	Wednesday	Thursday
08:30 - 09:30 AM	Pharmacology and Therapeutics III (L1)	Design and	Basic Microbiology and Immunology (L1)	Medicinal and	Biostatics and
09:30 - 10:30 AM	Formulation of Biopharmaceutics		Pharmaceutical Chemistry II (P1)	Research Methodology (P1)	
10:30 – 11:00 AM			BREAK		
11:00 AM - 12:00 Noon	Design and Formulation of Dispersion Systems (L1)	Biopharmaceutics and	Basic Microbiology	Design and Formulation of Dispersion Systems (L2)	Self-Study
12:00 - 01:00 PM	Self-Study	Pharmacokinetics I (P1)		Biopharmaceutics and Pharmacokinetics I (L2)	Self-Study
1:00 – 1:30 PM			BREAK		
01:30 - 02:30 PM	Biostatics and Research Methodology (L1)	Medicinal and Pharmaceutical Chemistry II (L1)	Self-Study	Pharmacology and	Self-Study
02:30 - 03:30 PM	Biostatics and Research Methodology (L2)	Basic Microbiology and Immunology (L2)	Design and Formulation of Dispersion Systems (L3)	Therapeutics III (P1)	Medicinal and Pharmaceutical Chemistry II (L2)

L – Lecture, P - Practical

# 16.6 Semester – 6

Time	Sunday	Monday	Tuesday	Wednesday	Thursday
08:30 - 09:30 AM	Pathogenic Microbiology	Biopharmaceutics and	Pathogenic Microbiology and Antibiotics (L1)	Self-Study	Self-Study
09:30 - 10:30 AM	and Antibiotics (P1)	Pharmacokinetics II (P1)	Interpretation of Clinical Laboratory Data (L1)	Biopharmaceutics and Pharmacokinetics II (L2)	Complementary and Alternative Medicine (L1)
10:30 – 11:00 AM			BREAK		
11:00 AM - 12:00 Noon	Self-Study	Pharmaceutical Technology (L1)	Pathogenic Microbiology and Antibiotics (L2)	Health Care System and Pharmaceutical Care (L1)	Interpretation of Clinical Laboratory Data (L2)
12:00 - 01:00 PM	Self-Study	Bioassay and Drug Screening (L1)	Drug Information and Literature Evaluation (L2)	Self-Study	Complementary and Alternative Medicine (L2)
1:00 – 1:30 PM			BREAK		
01:30 - 02:30 PM	Pharmaceutical Technology	Drug Information and Literature Evaluation (P1)	Biopharmaceutics and Pharmacokinetics II (L1)	Self-Study	Pharmaceutical Technology (L2)
02:30 - 03:30 PM	(P1)		Interpretation of Clinical Laboratory Data (L3)	Self-Study	Health Care System and Pharmaceutical Care (L2)

L – Lecture, P - Practical

# 16.7 Semester – 7

Timings/Day s	Sunday	Monday	Tuesday	Wednesday	Thursday	
08:30-09:30 AM	OTC Drugs and Products	Self-Study	Clinical Pharmacy- Disease and therapeutic Management-	Clinical Pharmacokinectics and Therapeutic Drug Monitoring (L2)	Clinical Pharmacy- Disease and therapeutic Management-I (L2)	
09:30-10:30 AM	(P1)	Self-Study	I (P1)	OTC Drugs and Products (L2)	Communication Skills in Pharmacy Practice (L2)	
10:30 - 11:00 AM	BREAK					
11:00 AM- 12:00 PM	Sterile Dosage Forms (L1)	Self-Study	Communicatio n Skills in Pharmacy Practice (L1)	Pharmacoeconomics (L2)	Clinical	
12:00-01:00 PM	Pharmacoeconomics (L1)	OTC Drugs and Products (L1)	Sterile Dosage Forms (L2)	Self-Study	Pharmacokinectics and Therapeutic Drug Monitoring (P1)	
1:00 – 1:30 PM			BREA	K		
01:30-02:30 PM	Clinical Pharmacokinectics and Therapeutic Drug Monitoring (L1)	Sterile Dosage	Self-Study	Self-Study	Pharmacoeconomics (L3)	
02:30-03:30 PM	Clinical Pharmacy- Disease and therapeutic Management-I (L1)	Forms (P1)	Forms	Self-Study	Self-Study	Self-Study

L – Lecture, P - Practical

# 16.8 Semester - 8

Time	Sunday	Monday	Tuesday	Wednesday	Thursday
8:30 - 9:30 AM	Clinical Problems in Parenteral Nutrition and Intravenous Therapy (L1)	Medications Errors: Causes, Prevention and Current Issues (L1)	Ethics and the Modern World (L1)	Clinical Problems in Parenteral Nutrition and Intravenous Therapy (L2)	Drugs of Abuse and Clinical Toxicology (L2)
9:30 - 10:30 AM	Clinical Pharmacy - Disease and Therapeutics Management II (L1)	Clinical Pharmacy - Disease and Therapeutics Management II (L2)	Drugs of Abuse and Clinical Toxicology (L1)	Self-Study	Clinical Problems in Parenteral Nutrition and Intravenous Therapy (L3)
10:30 - 11:00 AM			BREAK		
11:00 AM - 12:00 Noon	Ethics and the Modern World (L2)	Self-Study	Professional Pharmaceutical Ethics and Legislations (L1)	Self-Study	Physical Assessment
12:00 - 01:00 PM	Self-Study	Medications Errors: Causes, Prevention and Current Issues (L2)	Professional Pharmaceutical Ethics and Legislations (L2)	Ethics and the Modern World (L3)	(P2)
1:00 – 1:30 PM	BREAK				
1:30 - 2:30 PM	Self-Study	Clinical Pharmacy - Disease and Therapeutics	Drugs of Abuse and Clinical	Physical Assessment (P1)	Self-Study
2:30 - 3:30 PM	Self-Study	Management II Toxicology (P1)	Toxicology (P1)		Self-Study

L – Lecture, P - Practical

# 16.9 Semester – 9

Time	Sunday	Monday	Tuesday	Wednesday	Thursday
08:30 - 09:30 AM	Class Test	Endocrinology / Rheumatology / OB/GYN	Infectious Disease / Hematology	Psychiatry / Neurology	Gastroenterology / Nutrition
09:30 - 10:30 AM	Ward Rounds	Ward Rounds	Ward Rounds	Ward Rounds	Ward Rounds
10:30 - 11:00 AM	BREAK				
11:00 AM - 12:00 Noon	Cardiology	Cardiology	Clinical Seminar	Infectious Disease / Hematology	Class Test
12:00 - 01:00 PM	Nuclear Pharmacy and Oncology	Cardiology	Clinical Seminar	Infectious Disease / Hematology	Renal Impairment and Drug Monitoring
1:00 – 1:30 PM	BREAK				
01:30 - 02:30 PM	Renal Impairment and Drug Monitoring	Nuclear Pharmacy and Oncology	Endocrinology / Rheumatology / OB/GYN	Psychiatry / Neurology	Gastroenterology / Nutrition
02:30 - 03:30 PM	Renal Impairment and Drug Monitoring	Nuclear Pharmacy and Oncology	Endocrinology / Rheumatology / OB/GYN	Psychiatry / Neurology	Gastroenterology / Nutrition

# LIST OF COURSE TEXTS, RECOMMENDED READINGS AND LEARNING RESOURCES

# 17.0 List of Course Texts, Recommended Readings and Learning Resources

#### Semester - 1

# GE 110: Composition and Modern English I

#### **Course Text:**

1. Blanchard K, Root C. Ready to Write 1: A First Composition Text, 3rd Edition. Pearson Education ESL; 2010. ISBN-10: 013-1363-301, ISBN-13: 978-013-1363-304.

# **Recommended Reading:**

1. Fawcett S. Grassroots with Readings: The Writer's Workbook, 11<sup>th</sup> Edition. Cengage Learning; 2014. ISBN-10: 128-5430-778, ISBN-13: 978-128-5430-775.

# **GE 112: Mathematics for the Biological Sciences**

#### **Course Texts:**

1. Arya JC, Lardner RW. Mathematics for the Biological Sciences, 1st Edition. Prentice-Hall; 1979. ISBN-10: 013-5624-398, ISBN-13: 978-013-5624-395.

# **Recommended Readings:**

- 1. Stewart J. Calculus: Early Transcendentals, 11th Edition. Wiley; 2015. ISBN-10: 111-8885-635, ISBN-13: 978-111-8885-635.
- 2. Nagle RK, Saff EB, Snider AD. Fundamentals of Differential Equations, 8th Ed. Pearson; 2011. ISBN-10: 032-1747-739, ISBN-13: 978-032-1747-730.
- 3. Salas SL, Etgen GJ, Hille E. Calculus: One and Several Variables, 10th Edition. Wiley; 2006. ISBN-13: 978-047-1698-043.
- 4. Anton H, Bivens IC, Davis Calculus Early Transcendental Single Variable, 10<sup>th</sup> Edition. New York: John Wiley and Sons; 2012. ISBN-10: 047-0647-68X, ISBN-13: 978-047-0647-684.

#### **GE 114: General Chemistry**

#### **Course Text:**

1. Masterton WL, Hurley CN, Neth EJ. Chemistry: Principles and Reactions, 7<sup>th</sup> Edition. Brooks Cole; 2011. ISBN-13: 978-111-1427-108.

- 1. Petrucci RH, Herring FG, Madura JD, Bissonnette C. General Chemistry: Principles and Modern Applications, 11<sup>th</sup> Edition. Pearson Prentice Hall; 2016. ISBN-10: 013-2931-281, ISBN-13: 978-013-2931-281
- 2. Denniston KJ, Topping JJ, Caret RL. General, Organic and Biochemistry, 8th Edition. McGraw-Hill College; 2013. ISBN-13: 978-007-3402-765.
- 3. Hein M, Arena S. Foundations of College Chemistry, 14th Edition. USA: Wiley; 2012. ISBN-13: 978-111-8133-552.

4. Ebbing D, Gammon SD. General Chemistry, 10th Edition. Cengage Learning; 2012. ISBN-13: 978-128-5051-376.

# **GE 120: Computer Concepts and Applications**

#### **Course Texts:**

1. Vermaat ME. Enhanced Discovering Computers (Shelly Cashman Series). Cengage Learning; 2014. ISBN-13: 978-128-5845-500.

# **Recommended Readings:**

- 1. Vermaat ME. Microsoft Office 365: Office 2016, Introductory. Course Technology; 2016. ISBN-10: 130-5870-018, ISBN-13: 978-130-5870-017.
- 2. Evans A, Martin K, Poatsy MA. Technology in Action Complete, 12th Edition. Pearson; 2015. ISBN-13: 978-013-3949-568.
- 3. Joos I, Nelson R, Smith MJ. Introduction to Computers for Healthcare Professionals, 6th Edition. Jones & Bartlett Learning; 2013. ISBN-13: 978-144-9697-242, ISBN-10: 144-9697-240.
- 4. Vermaat ME. Microsoft Office 2013: Introductory (Shelly Cashman Series). Cengage Learning; 2013. ISBN-13: 978-128-5166-025.

# PS 131: Principles of Human Anatomy and Physiology I

#### **Course Text:**

1. Marieb EN, Hoehn KN. Human Anatomy and Physiology, 9<sup>th</sup> Edition. Pearson New International Edition; 2014. ISBN-13: 978-129-2026-497.

#### **Recommended Readings:**

- 1. Guyton AC, Hall JE. Textbook of Medical Physiology, 13th Edition. Saunders; 2015. ISBN-10: 145-5770-051, ISBN-13: 978-145-5770-052.
- 2. Keith L. Moore. Clinical Oriented Anatomy, 7th Edition, Lippincott Williams and Wilkins; 2013. ISBN-13: 978-145-1119-459.
- 3. Crowley L. An Introduction to Human Disease: Pathology and Pathophysiology Correlations, 9th Edition. Jones & Bartlett Learning; 2012. ISBN-13: 978-144-9665-593.
- 4. Vander AJ, Sherman JH, Luciano DS. Human Physiology, 8<sup>th</sup> Edition. McGraw Hill; 2001. ISBN-10: 007-2908-017, ISBN-13: 978-007-2908-015.
- 5. Snell RS. Clinical Anatomy by Regions, 9th Edition. Lippincott Williams & Wilkins; 2012. ISBN-13: 978-145-1110-326. Chapter 4, pp. 113-128.

#### Semester - 2

#### **GE 124: Islamic Studies**

#### **Course Text:**

1. Zakaryya, Mohamed Abdel-Hady. Islamic Thought & Culture (Revised and Edited By Ahmed. M. Abdel-Hady), 4<sup>th</sup> Edition. UAE: Al-Falah Books; 2014. ISBN-13: 978-995-7170-707.

# **Recommended Reading:**

1. Seyyed Hossein Nasr and Oliver Leaman. History of Islamic Philosophy. Great Britain: Digital Printing, British Library Cataloguing Publication Data. ISBN-13: 978-041-5259-347.

# PS 112: Pharmaceutical Calculations and Solution Dosage Forms

#### **Course Text:**

- 1. Ansel HC, Stoklosa MJ. Pharmaceutical Calculations, 14<sup>th</sup> Edition. Wolters Kluwer Health; 2012. ISBN-13: 978-145-1186-802.
- 2. Zatz JL, Teixeira MG. Pharmaceutical Calculations, 4<sup>th</sup> Edition. John Wiley & Sons; 2005. ISBN-10: 047-1433-535, ISBN-13: 978-145-1120-363.

# **Recommended Readings:**

- 1. Aulton ME, Taylor KMG. Aulton's Pharmaceutics: The Design and Manufacture of Medicines, 4th International Edition. Churchill Livingstone; 2013. ISBN-10: 070-2042-919, ISBN-13: 978-070-2042-911.
- 2. Allen Jr. LV, Ansel HC. Ansels's Pharmaceutical Dosage Forms and Drug Delivery Systems, 10<sup>th</sup> Edition. Lippincott Williams and Wilkins; 2013. ISBN-10: 145-1188-765, ISBN-13: 978-145-1188-769.
- 3. Troy DB, Remington JP, Beringer P. Remington: The Science and Practice of Pharmacy, 21st Edition. Lippincott Williams & Wilkins; 2006. ISBN-13: 978-078-1746-731.
- 4. Ansel HC, Stocktorn SJP. Pharmaceutical Calculations, 15th Edition. Wolters Kluwer Health; 2016. ISBN-10: 149-6300-718, ISBN-13: 978-149-6300-713.

#### PS 121: Pharmaceutical Organic Chemistry

#### **Course Texts:**

- 1. Morrison R, Boyd RE. Organic chemistry, 7th Edition. New York: Allyn and Bacon, Inc.; 2014. ISBN-13: 978-020-5058-389.
- 2. Soloman TWG, Fryhle CB. Organic Chemistry, 10<sup>th</sup> Edition. New Jersey: John Wiley & Sons; 2011. ISBN-13: 978-047-0524-596.

#### **Recommended Readings:**

- 1. Soloman TWG, Fryhle CB. Organic Chemistry: International Student Version, 11th Edition. Wiley; 2013. ISBN-10: 111-8323-793, ISBN-13: 978-111-8323-793.
- 2. Hart H, Hadad CM, Crained LE, Hart DJ. Organic Chemistry: A Short Course, 13<sup>th</sup> Edition. Boston: Houghton Mifflin Company; 2012, ISBN-13: 978-111-1425-562.
- 3. Bruice PY. Organic Chemistry, 6<sup>th</sup> Edition. New York: Pearson Publications; 2011. ISBN-13: 978-032-1697-684.

#### PS 122: General Pharmacognosy

#### **Course Text:**

1. Evans WE. Trease and Evans' Pharmacognosy, 16<sup>th</sup> Edition. Saunders; 2009. ISBN-13: 978-070-2029-332.

# **Recommended Reading:**

1. Robbers JE, Speedie MK, Tyler VE. Pharmacognosy and Pharmacobiotechnology. Williams and Wilkins; 1996. ISBN-13: 978-068-3085-006.

# PS 132: Medical Terminology

#### **Course Text:**

1. Ansel HC, Stockton SJP. Pharmaceutical Calculations, 15th Edition. LWW; 2016. ISBN-10: 149-6300-718, ISBN-13: 978-149-6300-713.

# **Recommended Readings:**

- 2. Enrlich A, Schroeder CL. Medical Terminology for Health Professions, 8th Edition. Cengage Learning; 2016. ISBN-13: 978-130-5634-350.
- 3. Gylys BA, Wedding ME. Medical Terminology: A Body Systems Approach, 7<sup>th</sup> Edition. FA Davis; 2012. ISBN-13: 978-080-3635-753.

# PS 133: Principles of Human Anatomy and Physiology II

#### **Course Text:**

1. Marieb EN, Hoehn KN. Human Anatomy and Physiology, 9th Edition. Pearson New International Edition; 2014. ISBN-13: 978-129-2026-497.

- 1. Hall JE. Guyton and Hall Textbook of Medical Physiology, 13th Edition. Saunders; 2015. ISBN-13: 978-145-5770-052.
- 2. Silverthorn DU. Human Physiology: An Integrated Approach, 7th Edition. Pearson; 2015. ISBN-13: 978-032-1981-226.
- 3. Fox S. Human Physiology, 14th Edition. McGraw-Hill; 2015. ISBN-10: 007-7836-375, ISBN-13: 978-007-7836-375.
- 4. Keith L. Moore. Clinical Oriented Anatomy, 7th Edition, Lippincott Williams and Wilkins; 2013. ISBN-13: 978-145-1119-459.
- 5. Crowley L. An Introduction to Human Disease: Pathology and Pathophysiology Correlations, 9th Edition. Jones & Bartlett Learning; 2012. ISBN-10: 144-9665-594, ISBN-13: 978-144-9665-593.
- 6. Richard S. Snell. Clinical Anatomy by Regions, 9th Edition, Lippincott Williams & Wilkins; 2012. ISBN-13: 978-145-1110-326.
- 7. Vander AJ, Widmaier EEA. Human Physiology: The Mechanisms of Body Function, 12th Edition. McGraw-Hill; 2010. ISBN-13: 978-007-7131-579.

### **GE 126: UAE Society**

#### **Course Text:**

1. Mohammad Tohail Aseed and Yousef Mohamad Shorab. Emirates Society, 2nd Edition. Al Falah Books; 2011. ISBN-13: 978-995-7170-981.

#### **Recommended Readings:**

1. Abu Bashaa, F. H. The Social and Political Environment and its Effects on the Establishment of the State of Emirates. Emirates Centre for Research and Documents; 2002. ISBN-10: 994-8050-002

#### **GE 128: Human Behavior and Socialization**

#### **Course Texts:**

- 1. Myers DG. Psychology, 10th Edition. USA: Worth Publishers; 2011. ISBN-10: 142-9261-781 ISBN-13: 978-142-9261-784
- 2. Macionis JJ. Sociology, 14th Edition. Pearson; 2012. ISBN-10: 020-5196-039, ISBN-13: 978-020-5196-036.
- 3. Park K. Park's Textbook of Preventive and Social Medicine, 22nd Edition. Banarsidas Bhanot-Jabalpur; 2013. ISBN-10: 938-2219-021, ISBN-13: 978-938-2219-026.

- 1. Myers DG, DeWall CN. Psychology, 11th Edition. USA: Worth Publishers; 2015. ISBN-10: 146-4140-812, ISBN-13: 978-146-4140-815.
- 2. Schultz DP, Schultz SE. A History of Modern Psychology, 11th Edition. Cengage Learning; 2015. ISBN-10: 130-5630-041, ISBN-13: 978-130-5630-048.
- 3. Robbins SP, Judge TA. Essentials of Organizational Behavior, 13th Edition. Pearson; 2015. ISBN-10: 013-3920-81X, ISBN-13: 978-013-3920-819.
- 4. Feldman RS. Essentials of Understanding Psychology, 11th Edition. McGraw-Hill Education; 2014. ISBN-10: 007-7861-884, ISBN-13: 978-007-7861-889.
- 5. Coon D, Mitterer JO. Psychology: Modules for Active Learning, 13th Edition. Cengage Learning; 2014. ISBN-10: 128-5739-280, ISBN-13: 978-128-5739-281.
- 6. Kalat JW. Introduction to Psychology, 10th Edition. Cengage Learning, 2013. ISBN-10: 113-3956-602, ISBN-13: 978-113-3956-600.
- 7. Willis K, Elmer S. Society, Culture and Health: An Introduction to Sociology for Nurses, 2<sup>nd</sup> Edition. Oxford University Press; 2011. ISBN-10: 019-5574-621, ISBN-13: 978-019-5574-623.
- 8. Taylor K, Nettleton S, Harding G. Sociology for Pharmacists: An Introduction, 2nd Edition. CRC Press; 2003. ISBN-10: 041-5274-885, ISBN-13: 978-041-5274-883.

# GE 130: Composition and Modern English II

#### **Course Texts:**

1. Blanchard K., Root C. Ready to Write 1: A First Composition Text, 3rd Edition. Pearson Education ESL; 2010. ISBN-10: 013-1363-301.

#### **Recommended Readings:**

- 1. Blanchard K, Root C. Ready to Write More: From Paragraph to Essay, 3rd Edition. New York: Pearson Publication; ISBN-13: 978-013-1363-342.
- 2. Fawcett S. Evergreen: A Guide to Writing with Readings, 10th Edition. New York: Houghton Mifflin Company; 2013. ISBN-13: 978-113-3946-687.
- 3. Fawcett S. Grassroots with Readings: The Writer's Workbook, 11<sup>th</sup> Edition. Cengage Learning; 2014. ISBN-10: 128-5430-778, ISBN-13: 978-128-5430-775.

#### PS 211: Pharmaceutics and Drug Stability

#### **Course Text:**

1. Sinko PJ. Martin's Physical Pharmacy and Pharmaceutical Sciences, 6<sup>th</sup> Edition. Lippincott Williams and Wilkins; 2011. ISBN 13: 978-160-9134-020.

# **Recommended Readings:**

- 1. Aulton ME, Taylor KMG. Aulton's Pharmaceutics: The Design and Manufacture of Medicines, 4<sup>th</sup> International Edition. Churchill Livingstone; 2013. ISBN-10: 070-2042-919, ISBN-13: 978-070-2042-911.
- 2. Allen Jr. LV, Ansel HC. Ansel's Pharmaceutical Dosage Forms and Drug Delivery Systems, 10<sup>th</sup> Edition, Lippincott Williams and Wilkins; 2014. ISBN-10: 146-9855-682, ISBN-13: 978-146-9855-684.
- 3. Khar RK, Vyas SP, Ahmad FJ, Jain GK. Lachman/Lieberman's The Theory and Practice of Industrial Pharmacy, 4<sup>th</sup> Edition. CBS Publishers; 2013. ISBN: 978-812-3922-898.

#### PS 221: Pharmaceutical Analytical Chemistry

#### **Course Text:**

1. Skoog DA, West DM, Holler FJ, Crouch SR. Fundamentals of Analytical Chemistry, 8th Edition. Brooks Cole; 2003. ISBN-13: 978-003-0355-233.

- 1. Christian GD, Dasgupta PK, Schug KA. Analytical Chemistry, 7th Edition. Wiley; 2013. ISBN-13: 978-047-0887-578.
- 2. Skoog DA, West DM, Holler FJ, Crouch SR. Fundamentals of Analytical Chemistry, 9th Edition. Cengage Learning; 2013. ISBN-10: 049-5558-281, ISBN-13: 978-049-5558-286.

- 3. Hansen S, Pedersen-Bjergaard S, Rasmussen K. Introduction to Pharmaceutical Chemical Analysis, 1<sup>st</sup> Edition. John Wiley & Sons Inc.; 2011. ISBN-10: 111-9954-339, ISBN-13: 978-111-9954-330.
- 4. Beckett AH, Stenlake JB. Practical Pharmaceutical Chemistry. Continuum, 4<sup>th</sup> Edition. Bloomsbury Academic; 2001. ISBN-13: 978-048-5113-235.

# PS 231: Pharmacology and Therapeutics I

#### **Course Text:**

1. Katzung BG, Trevors AJ. Basic and Clinical Pharmacology, 13<sup>th</sup> Edition. McGraw-Hill Medical; 2014. ISBN-10: 007-1825-053, ISBN-13: 978-007-1825-054.

# **Recommended Readings:**

- 1. Rang HP, Ritter JM, Flower RJ, Henderson G. Rang and Dale's Pharmacology, 8th Edition. Churchill Livingstone; 2015. ISBN-13: 978-070-2053-627.
- 2. Brunton L, Chabner B, Knollman B. Goodman and Gilman's The Pharmacological Basis of Therapeutics, 12<sup>th</sup> Edition. McGraw-Hill Medical; 2011. ISBN-13: 978-007-1624-428.

# PS 232: Biochemistry I

#### **Course Text:**

1. Vasudevan DM, Sreekumari S, Vaidyanathan K. Textbook of Biochemistry for Medical Students, 7<sup>th</sup> Edition. Jaypee Brothers Medical Pub; 2013. ISBN-13: 978-935-0905-302.

#### **Recommended Readings:**

- 1. Rodwell VW, Bender DA, Botham KM, Kennelly PJ, Weil PA. Harper's Illustrated Biochemistry, 30<sup>th</sup> Edition. McGraw-Hill Education; 2015. ISBN-13: 978-0071-825-344. Available on access medicine.
- 2. Satyanarayana U. Biochemistry, 4<sup>th</sup> Edition. New Delhi, Elsevier Health Sciences APAC; 2013. ISBN-13: 978-8131-237-137•

# Semester - 4

#### **GE 210: Professional Communication Skills**

#### **Course Text:**

1. Zarefsky D. Public Speaking: Strategies for Success, 6<sup>th</sup> Edition. Pearson. ISBN-10: 020-5638-325.

#### **Recommended Reading:**

1. Zarefsky D. Public Speaking: Strategies for Success, 8th Edition. Pearson; 2016. ISBN-10: 013-4319-974, ISBN-13: 978-013-4319-971.

2. Lucas S. The Art of Public Speaking, 12th Edition. McGraw-Hill; 2014. ISBN-10: 007-3523-917, ISBN-13: 978-007-3523-910.

# PS 222: Instrumental Analysis

#### **Course Text:**

1. Skoog DA, West DM. Fundamentals of Analytical Chemistry, 8<sup>th</sup> Edition. Brooks Cole; 2003. ISBN-13: 978-003-0355-233.

#### **Recommended Readings:**

- 1. Skoog DA, West DM. Fundamentals of Analytical Chemistry, 9th Edition. Cengage Learning; 2013. ISBN-13: 978-049-558-286.
- 2. David G. Watson. Pharmaceutical Analysis: A Textbook for Pharmacy Students and Pharmaceutical Chemists, 3rd Edition. Edinburgh: Churchill Livingstone; 2012. ISBN-13: 978-070-2046-216.
- 3. Kasture AV, Mahadik KP, Wadodkar SG. Pharmaceutical Analysis (Instrumental Methods), Volume II, 7<sup>th</sup> Edition. Niralli Prakashan: 2008. ISBN-13: 978-818-5790-084.

# PS 223: Medicinal and Pharmaceutical Chemistry I

#### **Course Texts:**

- 1. Silvermann R. The Organic Chemistry of Drug Design and Drug Action, 3<sup>rd</sup> Edition. Cambridge: Academic Press; 2014, ISBN-13: 978-012-6437-324.
- 2. John MB, John HB, Wilson and Gisvold's Textbook of Organic Medicinal and Pharmaceutical Chemistry, 12<sup>th,</sup> Edition. New York: JB Lippincott; 2012. ISBN-13: 978-078-1734-813.

#### **Recommended Readings:**

- 1. Thomas LL, David AW, Foye's Principles of Medicinal Chemistry, 7th Edition. Philadelphia: Lippincott Williams and Wilkins; 2013, ISBN-13: 978-145-1175-721.
- 2. Donald JA, David PR, Burger's Medicinal Chemistry, Drug Discovery, and Development, 7<sup>th</sup> Edition. Hoboken: John Wiley and Sons; 2010. ISBN-13: 978-047-1266-945.

#### PS 233: Pathology

#### **Course Text:**

1. Kumar V, Abbas A K, Aster J C: Robbins Basic Pathology, 9<sup>th</sup> Edition. Saunders; 2013. ISBN-13: 978-080-8924-326. Chapters 1-8.

#### **Recommended Reading:**

1. Damjanov I, Linder J. Anderson's Pathology, 10<sup>th</sup> Edition. Mosby; 2009. ISBN-13: 978-080-1672-361.

# PS 234: Pharmacology and Therapeutics II

#### **Course Text:**

1. Katzung BG, Trevors AJ. Basic and Clinical Pharmacology, 13<sup>th</sup> Edition. McGraw-Hill Medical; 2014. ISBN-10: 007-1825-053, ISBN-13: 978-007-1825-054

#### **Recommended Readings:**

- 1. Rang HP, Dale MM, Ritter JM, Flower RJ, Henderson G. Rang and Dale's Pharmacology, 8th Edition. Churchill Livingstone; 2015. ISBN-13: 978-070-2053-627.
- 2. Brunton L, Chabner B, Knollman B. Goodman and Gilman's The Pharmacological Basis of Therapeutics, 12<sup>th</sup> Edition. McGraw-Hill Medical; 2011. ISBN-13: 978-007-1624-428.

# PS 235: Biochemistry II

#### **Course Text:**

1. Vasudevan DM, Sreekumari S, Vaidyanathan K. Textbook of Biochemistry for Medical Students, 7<sup>th</sup> Edition. Jaypee Brothers Medical Pub.; 2013. ISBN-13: 978-935-0905-302.

#### **Recommended Readings:**

- 1. Rodwell VW, Bender DA, Botham KM, Kennelly PJ, Weil PA. Harper's Illustrated Biochemistry, 30th Edition. McGraw-Hill Education; 2015. ISBN-13: 978-0071-825-344. Available on Access Medicine.
- 2. Satyanarayana U. Biochemistry, 4th Edition. New Delhi: Elsevier Health Sciences APAC; 2013. ISBN-13: 978-8131-237-137.

#### Semester - 5

#### PS 212: Design and Formulation of Dispersion Systems

# **Course Text:**

1. Patrick JS. Martin's Physical Pharmacy and Pharmaceutical Sciences, 6<sup>th</sup> Edition. Lippincott Williams and Wilkins; 2011. ISBN 13: 978-160-9134-020.

- 1. Aulton ME, Taylor KMG. Aulton's Pharmaceutics: The Design and Manufacture of Medicines, 4th International Edition. Churchill Livingstone; 2013. ISBN-10: 070-2042-919, ISBN-13: 978-070-2042-911.
- 2. Allen Jr. LV, Ansel HC. Ansel's Pharmaceutical Dosage Forms and Drug Delivery Systems, 10th Edition, Lippincott Williams and Wilkins; 2014. ISBN-10: 146-9855-682, ISBN-13: 978-146-9855-684.
- 3. Khar RK, Vyas SP, Ahmad FJ. Lachman/Lieberman's The Theory and Practice of Industrial Pharmacy, 4<sup>th</sup> Edition. CBS Publishers; 2013. ISBN: 978-812-3922-898.

# PS 312: Biopharmaceutics and Pharmacokinetics I

#### **Course Texts:**

- 1. Shargel L, Yu A, Wu-Pong S. Applied Biopharmaceutics and Pharmacokinetics, 5<sup>th</sup> Edition. McGraw-Hill; 2012. ISBN-13: 978-007-1375-504.
- 2. Perrie Y, Rades T. FASTtrack Pharmaceutics: Drug Delivery and Targeting. Pharmaceutical Press; 2012. ISBN-13: 978-085-7110-596.

# **Recommended Reading:**

- 1. Shargel L, Yu A, Wu-Pong S. Shargel & Yu's Applied Biopharmaceutics and Pharmacokinetics, 7th Edition. McGraw-Hill; 2015. ISBN-10: 007-1830-936, ISBN-13: 978-007-1830-935.
- 2. Brahmankar DM, Jaiswal SB. Biopharmaceutics and Pharmacokinetics: A Treatise. Vallabh Prakashan; 2011. ISBN-13: 978-818-5731-032.

# PS 313: Biostatistics and Research Methodology

#### **Course Text:**

1. Hulley SB, et al. Designing Clinical Research, 4<sup>th</sup> Edition. LWW; 2013. ISBN-13: 978-160-8318-049, ISBN-10: 160-8318-044.

# **Recommended Readings:**

- 1. Daniel WW, Cross CL. Biostatistics: A Foundation for Analysis in the Health Sciences, 10th Edition. USA: John Wiley and Sons Inc.; 2005. ISBN-13: 978-111-8302-798. ISBN-10: 111-8302-796.
- 2. Dawson B, Trapp RG. Basic and Clinical Biostatistics, 4th Edition. Lange Medical Books/McGraw –Hill Medical Publishing Division; 2004. ISBN-13: 978-007-1410-175, ISBN-10: 007-1410-171.

#### PS 321: Medicinal and Pharmaceutical Chemistry II

#### **Course Texts:**

- 1. Silvermann R. The Organic Chemistry of Drug Design and Drug Action, 3<sup>rd</sup> Edition. Cambridge: Academic Press; 2014, ISBN-13: 978-012-6437-324.
- 2. John MB, John HB, Wilson and Gisvold's Textbook of Organic Medicinal and Pharmaceutical Chemistry, 12<sup>th</sup> Edition. New York: JB Lippincott; 2012, ISBN-13: 978-078-1734-813.

- 1. Donald JA, David PR, Burger's Medicinal Chemistry, Drug Discovery, and Development, 7<sup>th</sup> Edition. Hoboken: John Wiley and Sons; 2010, ISBN-13: 978-047-1266-945.
- 2. Thomas LL, David AW, Foye's Principles of Medicinal Chemistry, 7<sup>th</sup> Edition. Philadelphia: Lippincott Williams and Wilkins; 2013, ISBN-13: 978-145-1175-721.

# PS 331: Pharmacology and Therapeutics III

#### **Course Text:**

1. Katzung B, Trevor A. Basic and Clinical Pharmacology, 13<sup>th</sup> Edition. McGraw-Hill Medical; 2014. ISBN-13: 978-007-1825-054.

# **Recommended Readings:**

- 1. Brunton L, Chabner B, Knollman B. Goodman and Gilman's The Pharmacological Basis of Therapeutics, 12<sup>th</sup> Edition. McGraw-Hill Medical; 2011. ISBN-13: 978-007-1624-428.
- 2. Rang HP, Dale MM, Ritter JM, Flower RJ, Henderson G. Rang & Dale's Pharmacology, 8th Edition. Churchill Livingstone; 2015. ISBN-13: 978-070-2053-627.

# PS 332: Basic Microbiology and Immunology

#### **Course Texts:**

- 1. Levinson W. Review of Medical Microbiology and Immunology, 13th Edition. US: McGraw Hill; 2014. ISBN-13: 978-007-1818-117.
- 2. Ananthanarayan R, Paniker CKJ. Ananthanarayan and Paniker's Textbook of Microbiology, 9th Edition. India: Universities Press; 2013. ISBN-13: 978-817-3718-892.

# **Recommended Readings:**

- 1. Levinson W. Review of Medical Microbiology and Immunology, 14th Edition. US: McGraw Hill; 2016. ISBN-10: 007-1845-747, ISBN-13: 978-007-1845-748.
- 2. Denyer SP, Hodges N, Gorman SP, Gilmore B. Hugo and Russell's Pharmaceutical Microbiology, 8<sup>th</sup> Edition. US: Wiley- Blackwell; 2011. ISBN-13: 978-144-4330-632.

#### Semester - 6

# PS 314: Biopharmaceutics and Pharmacokinetics II

#### **Course Texts:**

- 1. Rowland M, Tozer T. Clinical Pharmacokinetics and Pharmacodynamics: Concepts and Applications, 4<sup>th</sup> Edition. Lippincott Williams and Wilkins; 2011. ISBN-13: 978-078-1750-097.
- 2. Shargel L, Wu Pong S, Yu ABC. Applied Biopharmaceutics & Pharmacokinetics, 5<sup>th</sup> Edition. McGraw-Hill; 2005. ISBN-10: 007-1375-503, ISBN-13: 978-007-1375-504.
- 3. Notari RE. Biopharmaceutics and Clinical Pharmacokinetics: An Introduction, 4<sup>th</sup> Edition. CRC Press; 1986. ISBN-10: 082-4775-236, ISBN-13: 978-082-4775-230.

- 1. Brahmankar DM, Jaiswal SB, Prakashan V. Biopharmaceutics and Pharmacokinetics: A Treatise, 2nd Edition. Delhi: Vallabh Prakashan; 2009. ISBN-13: 978-818-5731-476.
- 2. Burton ME, Evans WE, Schentag JJ, Jusko WJ. Applied Pharmacokinetics: Principles of Therapeutic Drug Monitoring, 4th Edition. Lippincott Williams & Wilkins; 2005. ISBN-13: 978-078-1744-317, ISBN-10: 078-1744-318.

3. Gibaldi M, Perrier D. Pharmacokinetics, 2nd Edition. Philadelphia: Lippincott Williams & Wilkins; 1986. ISBN-10: 082-4710-428, ISBN-13: 978-082-4710-422.

# PS 315: Pharmaceutical Technology

#### **Course Texts:**

- 1. Khar RK, Vyas SP, and Ahmad FJ. Lachman/Liberman's The Theory and Practice of Industrial Pharmacy, 4<sup>th</sup> Edition. CBS Publishers and Distributors; 2013. ISBN-13: 978-812-3922-898.
- 2. Ghosal SK, Sanyal SK, Datta S. Introduction to Chemical Engineering. Tata McGraw Hill; 2001. ISBN-13: 978-007-4601-402.

# **Recommended Reading:**

1. Allen Jr. LV, Ansel HC. Ansel's Pharmaceutical Dosage Forms and Drug Delivery Systems, 10th Edition. Lippincott Williams and Wilkins; 2014. ISBN-10: 146-9855-682, ISBN-13: 978-146-9855-684.

# PS 322: Complementary and Alternative Medicine

#### **Course Texts:**

1. Mills S, Bone K. Principles and Practice of Phytotherapy: Modern Herbal Medicine, 2<sup>nd</sup> Edition. New York: Elsevier; 1999. ISBN-10: 044-3060-169, ISBN-13: 978-044-3060-168.

#### **Recommended Readings:**

- 1. Ara DM, John AB. The Review of Natural Products, 8th Edition. Lippincott Williams & Wilkins; 2014. ISBN-10: 157-4393-685, ISBN-13: 978-157-4393-682.
- 2. Bone K, Mills S. Principles and Practice of Phytotherapy: Modern Herbal Medicine, 2nd Edition. Churchill Livingstone; 2013. ISBN-10: 044-3069-921, ISBN-13: 978-044-3069-925.
- 3. Kayne SB. Complementary and Alternative Medicine, 2<sup>nd</sup> Edition. Pharmaceutical Press; 2008. ISBN-10: 085-3697-639, ISBN-13: 978-085-3697-633.
- 4. Phyllis AB. Prescription for Nutritional Healing, 5th Edition. Avery Publishing Group; 2010. ISBN-10: 158-3334-009, ISBN-13: 978-158-3334-003.
- 5. Volker S, Rudolf H, Varro ET. Rational Phytotherapy: A Physicians Guide to Herbal Medicine, 4<sup>th</sup> Edition. Germany: Springer; 2001. ISBN-13: 978-364-2980-954.
- 6. Kayne SB. Complementary Therapies for Pharmacists. United Kingdom: Pharmaceutical Press; 2002. ISBN-10: 085-3694-303, ISBN-13: 978-085-3694-304.

# PS 333: Interpretation of Clinical Laboratory Data

#### **Course Text:**

1. Fischbach F, Dunning MB. A Manual of Laboratory and Diagnostic Tests, 9th Edition. Lippincott Williams and Wilkins; 2014. ISBN-13: 978-145-1190-892.

## **Recommended Readings:**

- 2. Dipiro JT, Talbert RL. Yee G. Wells B. Pharmacotherapy-A Pathophysiologic Approach, 9th Edition. McGraw-Hill Medical; 2014. ISBN-13: 978-007-1800-532.
- 3. Pagana KD, Pagana TJ. Mosby's Manual of Diagnostic and Laboratory Tests, 5th Edition. Mosby; 2013. ISBN-13: 978-032-3089-494.
- **4.** Wilson DD. McGraw-Hill's Manual of Laboratory & Diagnostics Tests, 1<sup>st</sup> Edition. McGraw Hill Professional; 2007. ISBN-10: 007-1481-524, ISBN-13: 978-007-1481-526.
- 5. Lee M, et al. Basic Skills in Interpreting Laboratory Data, 5th Edition. American Society of Health-System Pharmacists; 2013. ISBN-13: 978-158-5283-439.

## PS 334: Pathogenic Microbiology and Antibiotics

#### **Course Texts:**

- 1. Levinson W. Review of Medical Microbiology and Immunology, 13<sup>th</sup> Edition. US: McGraw Hill; 2014. ISBN-13: 978-007-1818-117.
- 2. Ananthanarayan R, Paniker CKJ. Ananthanarayan and Paniker's Textbook of Microbiology, 9th Edition. India: Universities Press; 2013. ISBN-13: 978-817-3718-892.
- 3. Katzung BG, Trevors AJ. Basic and Clinical Pharmacology, 13<sup>th</sup> Edition. US: McGraw-Hill Medical; 2014. ISBN-10: 007-1825-053, ISBN-13: 978-007-1825-054. Available from: http://accessmedicine.mhmedical.com.

## **Recommended Readings:**

- 1. Levinson W. Review of Medical Microbiology and Immunology, 14th Edition. US: McGraw Hill; 2016. ISBN-13: 978-007-1818-117.
- 2. Brunton L, Chabner B, Knollman B. Goodman and Gilman's The Pharmacological Basis of Therapeutics, 12th Edition. McGraw-Hill Medical; 2011. ISBN-13: 978-007-1624-428.

## PS 335: Bioassay and Drug Screening

#### **Course Texts:**

- 1. Siddiqui HH. Bioassay of Drugs. Globalmedik; 2008. ISBN-10: 819-0401-122, ISBN-13: 978-890-401-128.
- 2. Gupta SK. Drug Screening Methods: Preclinical Evaluation of New Drugs, 2<sup>nd</sup> Edition. Jaypee Brothers Medical Publishers (P) Ltd; 2009. ISBN-13: 978-818-4486-186.

#### **Recommended Reading:**

1. Shlafer M. Pharmacology: Pretest Self-Assessment and Review, 14th Edition. McGraw-Hill; 2013. ISBN-10: 007-1791-469, ISBN-13: 978-007-1791-465.

#### PS 341: Healthcare System and Pharmaceutical Care

#### **Course Texts:**

1. McCarthy RL, Schafermeyer KW. Introduction to Health Care Delivery: A Primer for Pharmacists, 5th Edition. Jones and Bartlett Learning; 2011. ISBN-13: 978-144-9644-888.

- 1. Plake KS, Schafermeyer KW, McCarthy RL. McCarthy's Introduction to Health Care Delivery: A Primer for Pharmacists, 6th Edition. Jones and Bartlett Learning; 2016. ISBN-10: 128-4094-103, ISBN-13: 978-128-4094-107.
- 2. Rees JA, Smith I, Watson J. Pharmaceutical Practice, 5<sup>th</sup> Edition. Churchill Livingstone; 2014. ISBN-10: 070-2051-438, ISBN-13: 978-070-2051-432.
- 3. Cipolle RJ, Strand L, Morley P. Pharmaceutical Care Practice: The Patient-Centered Approach to Medication Management, 3<sup>rd</sup> Edition. McGraw-Hill Medical; 2012. ISBN-13: 978-007-1756-389.
- 4. Holdford DA, Brown TR. Introduction to Hospital and Healthcare System Pharmacy Practice, 1<sup>st</sup> Edition. ASHP. Bethesda; 2010. ISBN-13: 978-158-5282-371.

## PS 342: Drug Information and Literature Evaluation

#### **Course Texts:**

1. Malone P, Kier K, Stanovich J. Drug Information A Guide for Pharmacists, 5th Edition. McGraw-Hill Medical; 2014. ISBN-13: 978-007-1804-349.

## **Recommended Reading:**

- 1. Dawson B, Trapp RG. Basic and Clinical Biostatistics, 4<sup>th</sup> Edition. McGraw Hill Publication; 2004. ISSN: 1045-5523. ISBN-10: 007-1410-171, ISBN-13: 978-007-1410-175. Available
  - from: http://accessmedicine.mhmedical.com/content.aspx?bookid=356andsectionid=40086281.
- 2. Abate MA Blommel ML. Remington Education: Drug Information and Literature Evaluation, 1<sup>st</sup> Edition. Pharmaceutical Press; 2013. ISBN-13: 978-808-5710-664.

#### Summer Term – 1

## PS 343: Community Pharmacy Training I

#### **Course Texts:**

- 1. American Pharmacist Association (AhPA) Drug Information Handbook: A Clinically Relevant Resource for All Healthcare Professionals, 23<sup>rd</sup> Edition. Lexi Comp; 2014. ISBN-13: 978-159-1953-302.
- 2. Malone P, Kier K, Stanovich J. Malone MJ. Drug Information: A Guide for Pharmacists, 5<sup>th</sup> Edition. McGraw Hill Medical; 2014. ISBN-13: 978-007-1804-349.

- 1. Lexicomp. Drug Information Handbook: A Clinically Relevant Resource for All Healthcare Professionals, 25th Edition. Lexi Comp; 2016. ISBN-10: 159-1953-537, ISBN-13: 978-159-1953-531.
- 2. DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM. Pharmacotherapy A Pathophysiologic Approach, 9th Edition. McGraw-Hill Medical; 2014. ISBN-10: 007-1800-530, ISBN-13: 978-007-1800-532.
- 3. Krinsky DL, Ferreri SP. Handbook of Nonprescription Drugs, 18th Edition. American Pharmacists Association; 2014. ISBN-13: 978-158-2122-250.

- 4. Dandan RH, Brunton L. Goodman and Gilman Manual of Pharmacology and Therapeutics, 2nd Edition. McGraw-Hill Professional; 2013. ISBN-13: 978-007-1769-174
- 5. Griffith HW. Complete Guide to Prescription and Nonprescription Drugs. Perigee Trade; 2012. ISBN-13: 978-039-9537-677.
- 6. Nathan A. Non Prescription Medicines, 4th Edition. Pharmaceutical Press; 2010. ISBN-13: 978-085-3698-869.

#### Semester - 7

## PS 311: Sterile Dosage Forms

#### **Course Texts:**

- 1. Ochoa PS, Vega JA. Concepts in Sterile Preparations and Aseptic Technique. Jones and Bartlett Learning; 2014. ISBN-13: 978-144-9678-647; ISBN-13: 978-128-4035-728.
- 2. Akers MJ. Sterile Drug Products: Formulation, Packaging, Manufacturing and Quality, 1<sup>st</sup> Edition. CRC Press; 2010. ISBN-13: 978-142-0020-564; ISBN-13: 978-084-9339-936.

## **Recommended Reading:**

1. Troy DB, Remington JP, Beringer P. Remington: The Science and Practice of Pharmacy, 22<sup>nd</sup> Edition. Lippincott Williams and Wilkins; 2013. ISBN-13: 978-085-7110-626.

## PS 411: Clinical Pharmacokinetics and Therapeutic Drug Monitoring

#### **Course Text:**

1. Rowland M, Tozer T. Clinical Pharmacokinetics, 4<sup>th</sup> Edition. Lippincott Williams and Wilkins; 2011. ISBN-13: 978-078-1750-097.

## **Recommended Reading:**

1. Dipiro JT, Spruill WJ, Wade WE, Blouin RA, Pruemer PA. Concepts in Clinical Pharmacokinetics, 6<sup>th</sup> Edition. American Society of Health-System Pharmacists; 2014. ISBN-10: 158-5283-878, ISBN-13: 978-158-5283-873.

## **PS 414: OTC Drugs and Products**

#### **Course Text:**

1. Nathan A. Non-Prescription Medicines, 4<sup>th</sup> Edition. United Kingdom: Pharmaceutical Press; 2010. ISBN-13: 978-085-3698-869.

- 2. Nathan A. Non-Prescription Medicines, 4<sup>th</sup> Edition. United Kingdom: Pharmaceutical Press; 2010. ISBN-13: 978-085-3698-869.
- 3. Gomella L, Haist S, Adams A. Clinician's Pocket Reference 2016, 7th Edition. New York: McGraw-Hill; 2016. ISBN-13: 978-125-9586-057.
- 4. Rafiq RA, Riyadh MA, Hiba BE, Hanaa NH. A Guide to OTC Medication: Therapeutic Management of Common Illness. Riyadh: Al-Ashban; 2005, ISBN-10: 996-0497-631.

#### **PS 445: Pharmacoeconomics**

#### **Course Texts:**

2. Arnold RJG, Pharmacoeconomics from Theory to Practice (Drug Discovery Series), 1<sup>st</sup> Edition. New York: CRC Press; 2010. ISBN-13: 978-142-0084-221.

#### **Recommended Reading:**

- 1. Dipiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM. Pharmacotherapy: A Pathophysiologic Approach, 9<sup>th</sup> Edition. McGraw-Hill Education / Medical; 2014. ISBN-13: 978-007-1800-532.
- 2. Rascati KL. Essentials of Pharmacoeconomics. Baltimore, MD: Lippincott Williams and Wilkins, 2<sup>nd</sup> Edition, 2015. ISBN-13: 978-145-1175-936.

## **PS 441: Communication Skills in Pharmacy Practice**

#### **Course Text:**

1. Beardsley R S, Kimberlin C L, Tindall W N. Communication Skills in Pharmacy Practice: A Practical Guide for Students and Practitioners, 6<sup>th</sup> Edition. Philadelphia: Lippincott Williams and Wilkins; 2011. ISBN-13: 978-160-8316-021.

#### **Recommended Reading:**

1. Berger B. Communication Skills for Pharmacist: Building Relationships, Improving Patient Care, 3rd Edition. Improving Patient Care. Washington, DC: American Pharmacist Association; 2009. ISBN-13: 978-158-2121-321.

## PS 443: Clinical Pharmacy- Disease and Therapeutic Management I

#### **Course Texts:**

- 1. Dipiro JT, Talbert RL, Yee G, Matzke G, Wells B, Posey L. Pharmacotherapy: A Pathophysiologic Approach, 9<sup>th</sup> Edition. McGraw-Hill Education / Medical; 2014. ISBN-13: 978-007-1800-532.
- 2. Walker R, Whittlesea C. Clinical Pharmacy and Therapeutics, 5th Edition. Churchill Livingstone; 2011. ISBN-13: 978-070-2042-935.
- 3. Helms RA, Quan DJ, Herfindal ET, Gourley DR. Textbook of Therapeutics Drug and Disease Management, 8<sup>th</sup> Edition. Lippincott Williams and Wilkins; 2006. ISBN-10: 078-1757-347, ISBN-13: 978-078-1757-348.

- 1. Alldregde BK, Corelli RL, Ernst ME, Guglielmo Jr. BJ, et al. Koda-Kimble and Young's Applied Therapeutics: The Clinical Use of Drugs, 10<sup>th</sup> Edition. LWW; 2012. ISBN-13: 978-160-9137-137.
- 2. Brunton L, Chabner B, Knollman B. Goodman and Gilman's The Pharmacological Basis of Therapeutics, 12th Edition. McGraw-Hill Medical; 2011. ISBN-13: 978-007-1624-428.

#### Semester – 8

#### PP 446: Physical Assessment

#### **Course Text:**

1. Ball JW, Dains JE, Flynn JA, Solomon BS, Stewart RW. Seidel's Guide to Physical Examination, 8th Edition. Missouri, USA: Mosby; 2014. ISBN-13: 978-032-3112-406.

#### PS 415: Professional Pharmaceutical Ethics and Legislations

#### **Course Texts:**

- 1. MOH Pharmacy Law, UAE at www.moh.gov.ae.
- 2. Healthcare Professional Qualification Requirements 2014. Available at www.haad.ae.

## **Recommended Reading:**

1. Veatch R, Haddad A. Case Studies in Pharmacy Ethics, 2nd Edition. Oxford University Press; 2008. ISBN-13: 978-019-5308-129.

## PS 431: Drugs of Abuse and Clinical Toxicology

#### **Course Text:**

1. Klaassen CD. Casarett and Doull's Toxicology: The Basic Science of Poisons, 7th Edition. New York: McGraw-Hill Medical Publishing Division; 2008. ISBN-13: 978-007-1470-513.

## **Recommended Reading:**

1. Klaassen CD. Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Edition. New York: McGraw-Hill Medical Publishing Division; 2013. ISBN-10: 007-1769-234, ISBN-13: 978-007-1769-235.

#### GE 140: Ethics and the Modern World

#### **Course Texts:**

- 1. Fraedrich J, Ferrell L, Ferrell O C. Ethical Decision Making in Business- A Managerial Approach, 9th Edition. Cengage Learning; 2013. ISBN-13: 978-111-1826-611.
- 2. Ferrell O C, Thorne D M, Ferrell L. Social responsibility and Business, 4<sup>th</sup> Edition. Cengage Learning; 2011. ISBN-13: 987-053-8466-868, ISBN -10: 053-8466-863.
- 3. Reynolds G. Ethics in Information Technology, 1<sup>st</sup> Edition. Thomson/Course Technology; 2003. ISBN-10: 061-9062-770, ISBN-13: 978-061-9062-774.
- 4. Ashcroft RE, Dawson A, Draper H, McMillan J. Principles of Health Care Ethics, 2<sup>nd</sup> Edition. Wiley; 2007. ISBN-10: 047-0027-134, ISBN-13: 978-047-0027-134. Bonnett Foddy and Julian Savulescu. Ethics of Performance Enhancement in Sports: Drugs and Gene Doping.

## **Recommended Readings:**

- 1. Medical Ethics and Performance Enhancing Drugs, Carlos R Hamilton, American Medical Association Journal of Ethics, Vol. 7, no11, Nov 2005.
- 2. Reynolds G. Ethics in Information Technology, 4th Edition. Thomson/Course Technology, 2011. ISBN-10: 111-1534-128, ISBN-13: 978-111-1534-127.
- 3. Ferrell L, Fraedrich J, Ferrell O C. Business Ethics: Ethical Decision and Cases, 10th Edition. Cengage Learning; 2014. ISBN-10: 128-5423-712, ISBN-13: 978-128-5423-715.
- 4. Velasquez MG. Business ethics: Concepts and Cases, 7<sup>th</sup> Edition. Pearson; 2011. ISBN-10: 020-5017-665, ISBN-13: 978-020-5017-669.

## PS 444: Clinical Pharmacy - Disease and Therapeutic Management II

#### **Course Texts:**

- 1. Dipiro JT, Talbert RL, Yee G, Matzke G, Wells B, Posey L. Pharmacotherapy: A Pathophysiologic Approach, 9<sup>th</sup> Edition. McGraw-Hill Education / Medical; 2014. ISBN-13: 978-007-1800-532.
- 2. Walker R, Whittlesea C. Clinical Pharmacy and Therapeutics, 5th Edition. Churchill Livingstone; 2011. ISBN-13: 978-070-2042-935.

## **Recommended Readings:**

- 1. Alldregde BK, Corelli RL, Ernst ME, Guglielmo Jr. BJ, et al. Koda-Kimble and Young's Applied Therapeutics: The Clinical Use of Drugs, 10th Edition. LWW; 2012. ISBN-13: 978-160-9137-137.
- 2. Brunton L, Chabner B, Knollman B. Goodman and Gilman's The Pharmacological Basis of Therapeutics, 12th Edition. McGraw-Hill Medical; 2011. ISBN-13: 978-007-1624-428.

## PS 416: Clinical Problems in Parenteral Nutrition and Intravenous Therapy

#### **Course Text:**

1. ACI-NSW Agency for Clinical Nutrition. Parenteral Nutrition Pocketbook: For Adults. Agency for Clinical Innovation. Australia; 2011. ISBN-13: 978-174-1876-062. (Downloadable from Website).

#### **Recommended Readings:**

- 1. Mirtallo JM. Parenteral Nutrition Therapy. McMahon Publishing, New York. 2008. Available at:
  - http://www.pharmacypracticenews.com/download/Parenteral\_PPN\_PGo7016\_WM.pdf
- 2. Baxter KE. Stokley's Drug Interactions, 10<sup>th</sup> Edition. London: Pharmaceutical Press; 2013. ISBN-13: 978-085-7110-619.

## PS 447: Medication Errors: Cause, Prevention and Current Issues

#### **Course Text:**

1. Cohen MR. Medication Errors, 2nd Edition. American Pharmacists Association; 2007. ASIN: B008UB96ME, ISBN-10: 158-2120-927, ISBN-13: 978-158-2120-928.

## **Recommended Reading:**

1. Rantucci MJ, Stewart C, Stewart I. Focus on Safe Medication Practices, 1<sup>st</sup> Edition. William and Wilkins; 2009. ISBN -13: 978-078-1770-781, ISBN-10: 078-1770-785.

#### Summer Term - 2

#### **PS 448: Community Pharmacy Training II**

#### **Course Texts:**

- 1. Lexicomp. Drug Information Handbook: A Clinically Relevant Resource for All Healthcare Professionals, 25th Edition. Lexi Comp; 2016. ISBN-13: 978-159-1953-531.
- 2. Nathan A. Non-Prescription Medicines, 4th Edition. Pharmaceutical Press; 2010. ISBN-13: 978-085-3698-869.
- 3. Krinsky DL, Berardi RR. Handbook of Nonprescription Drugs: An Interactive Approach to Self-Care, 17th Edition. American Pharmacists Association; 2011. ISBN-13: 978-158-2121-604.

## **Recommended Readings:**

- 1. Krinsky DL, Ferreri SP, Hemstreet B, Hume AL. Handbook of Nonprescription Drugs: An Interactive Approach to Self-Care, 18th Edition. American Pharmacists Association; 2014. ISBN-10: 158-2122-253, ISBN-13: 978-158-2122-250.
- 2. Malone P, Kier K, Stanovich J. Drug Information A Guide for Pharmacists, 5th Edition. McGraw-Hill Medical; 2014. ISBN-13: 978-007-1804-349.
- 3. Alldregde BK, Corelli RL, Ernst ME, Guglielmo Jr. BJ, et al. Koda-Kimble and Young's Applied Therapeutics: The Clinical Use of Drugs, 10th Edition. LWW; 2012. ISBN-13: 978-160-9137-137.

## Semester - 9

#### PP 542: Pathophysiology and Pharmacotherapy Course: Cardiology

#### **Course Text:**

1. DiPiro J, Talbert RL, Yee G, Wells B, Posey LM. Pharmacotherapy A Pathophysiologic Approach, 9th Edition. McGraw-Hill Medical; 2014. ISBN-13: 978-007-1800-532.

- 1. Alldregde BK, Corelli RL, Ernst ME, Guglielmo Jr. BJ, et al. Koda-Kimble and Young's Applied Therapeutics: The Clinical Use of Drugs, 10th Edition. LWW; 2012. ISBN-13: 978-160-9137-137.
- 2. McCance KL, Huethe SE. Pathophysiology: The Biologic Basis for Disease in Adults and Children, 7th Edition. Mosby; 2013. ISBN-13: 978-032-3088-541.
- 3. Brunton L, Chabner B, Knollman B. Goodman and Gilman's The Pharmacological Basis of Therapeutics, 12th Edition. McGraw-Hill Professional; 2010. ISBN-13: 978-007-1624-428.

## PP 543: Pathophysiology and Pharmacotherapy Course: Psychiatry and Neurology

#### **Course Text:**

1. DiPiro J, Talbert RL, Yee G, Wells B, Posey LM. Pharmacotherapy A Pathophysiologic Approach, 9th Edition. McGraw-Hill Medical; 2014. ISBN-13: 978-007-1800-532.

## **Recommended Readings:**

- 1. Walker R and Whittlesea C. Clinical Pharmacy and Therapeutics, 5<sup>th</sup> Edition. Elsevier 2012, ISBN: 978-0-7020-4293-5, International ISBN-13: 978-070-2042-942.
- 2. Shergel L, Mutwick AH, Souney PF, Swanson LN. Comprehensive Pharmacy Review, 8th Edition. LWW; 2007: ISBN-13: 978-145-1117-042.
- 3. Brunton L, Chabner B, Knollman B. Goodman and Gilman's The Pharmacological Basis of Therapeutics, 12th Edition. McGraw-Hill Professional; 2010. ISBN-13: 978-007-1624-428

## PP 544: Pathophysiology and Pharmacotherapy Course: Gastroenterology and Nutrition

#### **Course Text:**

1. DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM. Pharmacotherapy: A Pathophysiologic Approach, 9<sup>th</sup> Edition. McGraw-Hill Education / Medical; 2014. ISBN-13: 978-007-1800-532.

## **Recommended Readings:**

- 1. Cipolle RJ, Strand L, Morley P, Cipolle R. Pharmaceutical Care Practice: The Clinician's Guide, 3rd Edition. McGraw-Hill Medical; 2012. ISBN-10: 007-1756-388, ISBN-13: 978-00-71756-389.
- 2. Schwinghammer T, Koehler J. Pharmacotherapy Casebook: A Patient-Focused Approach, 9th Edition. McGraw-Hill Medical; 2014. ISBN-13: 978-007-1830-133.
- 3. Brunton L, Chabner B, Knollman B. Goodman and Gilman's The Pharmacological Basis of Therapeutics, 12th Edition. McGraw-Hill Professional; 2010. ISBN-13: 978-007-1624-428.

## PP 545: Pathophysiology and Pharmacotherapy Course: Renal Impairments and Drug Monitoring

#### **Course Texts:**

- 1. DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM. Pharmacotherapy: A Pathophysiologic Approach, 9<sup>th</sup> Edition. McGraw-Hill Education / Medical; 2014. ISBN-13: 978-007-1800-532.
- 2. Brunton L, Chabner B, Knollman B. Goodman and Gilman's The Pharmacological Basis of Therapeutics, 12<sup>th</sup> Edition. McGraw-Hill Professional; 2010. ISBN-13: 978-007-1624-428.

#### **Recommended Readings:**

1. Schwinghammer T, Koehler J. Pharmacotherapy Casebook: A Patient-Focused Approach, 9th Edition. McGraw-Hill Medical; 2014. ISBN-13: 978-007-1830-133.

- 2. Xu QA, Madden TL. Analytical Methods for Therapeutic Drug Monitoring and Toxicology, 1st Edition. Wiley; 2011. ISBN-13: 978-047-0455-616.
- 3. Schumacher G. Therapeutic Drug Monitoring, 1st Edition. Appleton and Lange; 1995. ISBN-13: 978-083-8589-465.
- 4. Schwinghammer TL. Pharmacotherapy Casebook: A Patient-Focused Approach, 6<sup>th</sup> Edition. McGraw-Hill Medical; 2005. ISBN-13: 978-007-1433-600.

# PP 546: Pathophysiology and Pharmacotherapy Course: Endocrinology, Rheumatology, Obstetrics and Gynecology

#### **Course Text:**

1. DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM. Pharmacotherapy: A Pathophysiologic Approach, 9<sup>th</sup> Edition. McGraw-Hill Education / Medical; 2014. ISBN-13: 978-007-1800-532.

## **Recommended Readings:**

- 1. Cipolle RJ, Strand L, Morley P, Cipolle R. Pharmaceutical Care Practice: The Clinician's Guide, 2nd Edition. McGraw-Hill Medical; 2014. ISBN-13: 978-007-1362-597.
- 2. Hansten PD, Horn JR. Drug Interaction Analysis and Management, 9th Edition. Lippincott Williams and Wilkins; 2014. ISBN-13: 978-157-4393-644.
- 3. Hochberg MC, Silman AJ, Smolen JS, WeinBlatt ME. Rheumatology, 6th Edition. Mosby; 2014. ISBN- 13: 978-032-3091-381.
- 4. Brunton L, Chabner B, Knollman B. Goodman and Gilman's The Pharmacological Basis of Therapeutics, 12<sup>th</sup> Edition. McGraw-Hill Medical; 2011. ISBN-13: 978-007-1624-428.
- 5. Gardner D, Shoback D. Greenspan's Basic and Clinical Endocrinology, 9th Edition. McGraw-Hill Medical; 2011. ISBN-13: 978-007-1622-431.

# PP 547: Pathophysiology and Pharmacotherapy Course: Infectious Diseases and Hematology

#### **Course Text:**

1. DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM. Pharmacotherapy: A Pathophysiologic Approach, 9<sup>th</sup> Edition. McGraw-Hill Education / Medical; 2014. ISBN-13: 978-007-1800-532.

- 1. Cipolle RJ, Strand L, Morley P, Cipolle R. Pharmaceutical Care Practice: The Clinician's Guide, 2nd Edition. McGraw-Hill Medical; 2014. ISBN-13: 978-007-1362-597.
- 2. Hansten PD, Horn JR. Drug Interaction Analysis and Management, 9th Edition. Lippincott Williams and Wilkins; 2014. ISBN-13: 978-157-4393-644.
- 3. Brunton L, Chabner B, Knollman B. Goodman and Gilman's the Pharmacological Basis of Therapeutics, 12th Edition. McGraw-Hill Professional; 2011. ISBN-13: 978-007-1624-428.
- 4. Schwinghammer TL. Pharmacotherapy Casebook: A Patient-Focused Approach, 6th Edition. McGraw-Hill Medical; 2005. ISBN-13: 978-007-1433-600.

#### PP 548: Pathophysiology and Pharmacotherapy Course: Nuclear Pharmacy and Oncology

#### **Course Texts:**

- 1. DiPiro J, Talbert RL, Yee G, Wells B, Posey LM. Pharmacotherapy A Pathophysiologic Approach, 9th Edition. McGraw-Hill Medical; 2014. ISBN-13: 978-007-1800-532.
- 2. Alldregde BK, Corelli RL, Ernst ME, Guglielmo Jr. BJ, et al. Koda-Kimble and Young's Applied Therapeutics: The Clinical Use of Drugs, 10th Edition. LWW; 2012. ISBN-13: 978-160-9137-137.

## **Recommended Readings:**

- 1. Cipolle RJ, Strand L, Morley P, Cipolle R. Pharmaceutical Care Practice: The Clinician's Guide. 2nd Edition. McGraw-Hill Medical; 2014. ISBN-13: 978-007-1362-597.
- 2. Hansten PD, Horn JR. Drug Interaction Analysis and Management, 9th Edition. Lippincott Williams and Wilkins; 2014. ISBN-13: 978-157-4393-644.
- 3. Bast Jr. RC, Croe CM, Hait WM, Hong WK, Kufe DW, et al. Holland-Frei Cancer Medicine, 9th Edition. Wiley-Blackwell; 2016. ISBN-13: 978-111-8934-692.
- 4. Brunton L, Chabner B, Knollman B. Goodman and Gilman's the Pharmacological Basis of Therapeutics, 12th Edition. McGraw-Hill Professional; 2011. ISBN-13: 978-007-1624-428.
- 5. Genaro AR. Remington: The Science and Practice of Pharmacy, 19th Edition. Lippincott Williams and Wilkins; 1995. ISBN-13: 978-091-2734-040.

## PP 549: Clinical Seminar

#### **Course Texts:**

- 1. Nathan A. Non Prescription Medicines, 4<sup>th</sup> Edition. Pharmaceutical Press; 2010. ISBN-13: 978-085-3698-869.
- 2. Krinsky DL, Berardi RR. Handbook of Nonprescription Drugs, 17<sup>th</sup> Edition. American Pharmacists Association; 2011. ISBN-13: 978-158-2121-604.
- 3. American Pharmacist Association (AhPA) Drug Information Handbook: A Clinically Relevant Resource for All Healthcare Professionals, 23rd Edition. Lexi Comp; 2014. ISBN-13: 978-159-1953-302.

#### **Recommended Readings:**

- 1. Malone P, Kier K, Stanovich J, Malone MJ. Drug Information: A Guide for Pharmacists, 5<sup>th</sup> Edition. McGraw-Hill Medical; 2014. ISBN-13: 978-007-1804-349.
- 2. Alldregde BK, Corelli RL, Ernst ME, Guglielmo Jr. BJ, et al. Koda-Kimble and Young's Applied Therapeutics: The Clinical Use of Drugs, 10th Edition. LWW; 2012. ISBN-13: 978-160-9137-137.

\*GMU Online Resources and Databases. Available at: www.gmu-elibrary.com/resources from http://www.gmu.ac.ae/mygmu/.

**DEAN'S MERIT LIST** 

## 18.0 Dean's Merit List

2015 Batch			
S. No.	Reg. No.	Name	CGPA
1	2015PH18	Naseeha Vallathupady Abdul Jalal	3.91
2	2015PH22	Nasiruddin Muhammad Sulayman	3.71
3	2015PH06	Dalia Yousef Mohamed Al Saeedy	3.70

2014 Batch			
S. No.	Reg. No.	Name	CGPA
1	2014PH26	Fatiha Hammed	4.00
2	2014PH28	Abir Al-Azi	3.97
3	2014PH22	Aya Dzhakha	3.90

2013 Batch			
S. No.	Reg. No.	Name	CGPA
1	2013PH01	Mahya Haji Mahmoudi	3.98
2	2013PH33	Ayisha	3.90
	2013PH35	Fatima Bukar Ngorgi Afandi Shehu	
3	2013PH09	Zainab Abdulaziz Kaita	3.84

2012 Batch			
S. No.	Reg. No.	Name	CGPA
1	2011PH11	Saba Naeem	3.93
2	2012PH10	Zara Anwar	3.83
3	2012PH21	Rina Rosalia	3.80

2011 Batch			
S. No.	Reg. No.	Name	CGPA
1	2011PH33	Layla Ali Abdulhusain Mohamed Abdulla Alaali	3.84
2		Rizah Anwar Assadi	3.79
	2011PH05	Samiullah Shabbir Ahmad	
3	2011PH14	Reham Khaled Fawzi Abu Hijjleh	3.70
	2011PH18	Mariyam Imtiaz	





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