THUMBAY
Growth Through Innovation

جامعة الخليج الطبية

GULF MEDICAL UNIVERSITY

EDUCATION • HEALTHCARE • RESEARCH

GRADUATE CATALOG

(Academic Year 2016-2017)

www.gmu.ac.ae

CONTENT

1. INTRODUCTION

The GMU Graduate Catalog is meant to provide information and guidelines on the various services and graduate programs of the University. It contains sections covering admission procedures, general rules and regulations, student support services, curriculum details, departments and grading policies. Each section has a content list so that you can refer quickly to areas of particular interest to you. Every effort has been made to provide accurate and up-to-date information.

2. ACADEMIC CALENDAR

2016	Day	Events
FALL SEMESTER		
Nov 20	Sun	**Fall Semester begins** 1st Semester **MS CP, MPH & M Tox** Students Orientation Re-opening for the returning 3rd & 4th Semester **MS CP, MPH & M Tox** students
Nov 30	Wed	**Martyr's Day Holiday**
Dec 02	Fri	**National Day Holiday**
Dec 08	Thu	*End of Add and Drop period*
Dec 11	Sun	***Al Moulid Al Nabawi Holiday**
Dec 11 – 29	Sun – Thu	**Fall Semester Break for the 1st & 3rd Semester MS CP, MPH & M Tox *students***
2017		
Jan 01	Sun	***New Year Holiday***
Feb 05	Sun	***Mid Semester Examinations for the 1st & 3rd Semester* MS CP, MPH & M Tox *begins***
Mar 02	Thu	**Annual Sports Day**
Mar 10	Fri	**GMU Global Day**
Mar 11	Sat	**GMU Literary Day**
Mar 26 – Apr 06	**Sun - Thu**	**Spring Semester Break for the *1st, 3rd & 4th Semester* MS CP, *MPH & M Tox Students***
Apr 23	Sun	***End Semester Examinations for the 1st Semester* MS CP, 1st & 3rd Semester MPH & M Tox *begins***
Apr 24	Mon	***Israa Al Mihraj Holiday**
Apr 30	Sun	***End Semester Examinations for the 3rd Semester* MS CP *begins***
May 07 – 18	Sun – Thu	***Semester Break for the 1st & 3rd Semester* MS CP, MPH & M Tox *students***
May 10	Wed	*Announcement of **1st & 3rd** semester **MS CP, MPH & M Tox** results*
May 14	Sun	***Oral Defense of Thesis 4th Semester* MS CP & M Tox students**
May 18	Thu	*Announcement of 4th semester **MS CP & M Tox** results*

SPRING SEMESTER

May 21	Sun	***Spring Semester begin for the 2nd & 4th Semester* MS CP, MPH & M Tox *students***
May 27	Sat	****Holy month of Ramadan Starts***
Jun 08	Thu	*End of Add and Drop period*
Jun 25 - 27	Sun - Tue	****Eid Al Fitr Holiday***
July 16	Sun	***Mid Semester Examinations for the 2nd Semester* MS CP, MPH & M Tox *begins***
July 30 – Sep 07	Sun – Thu	**Summer Vacation & Eid Al Adha Holidays**
Sep 10	Sun	**Classes resume after Summer Vacation**
Nov 05	Sun	***End Semester Examinations for the 2nd Semester* MS CP, MPH & M Tox *begins***
Nov 12	Sun	***Oral Defense of Thesis 4th Semester* MS CP, MPH & M Tox students**
Nov 14	Tue	*Announcement of 4th semester **MS CP, MPH & M Tox** results*
Nov 19	Sun	*Announcement of 2nd semester **MS CP, MPH & M Tox** results*

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

******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.

3. GOVERNANCE AND LEADERSHIP

THE BOARD OF GOVERNORS

Patron:

1) **Mr. B. Ahmed Haji Mohiudeen,** Chairman, B.A. Group - Mangalore, India

Chairman:

2) **Mr. Thumbay Moideen,** Founder President, Board of Governors, Gulf Medical University - Ajman, UAE

3) **Prof. Hossam Hamdy,** Chancellor of Gulf Medical University - Ajman, UAE

Member / Secretary:

4) **Prof. Gita Ashok Raj,** Provost, Gulf Medical University - Ajman, UAE

Members:

5) **Prof. John Richard Raymond**, President & CEO, Medical College of Wisconsin, USA

6) **Dr. Lorenzo M. Leoni**, Managing Partner TiVenture (Agire Invest) Switzerland

7) **Dr. Mohammed Amin Al Awadi**, Assistant Undersecretary for Training & Planning – Ministry of Health, Bahrain

8) **Prof. Nadia Badrawi**, Vice - President and Founder – ANQAHE - Cairo, Egypt

9) **Dr. K. R. Shetty,** Former Principal & Prof. of Neurology, Kasturba Medical College - Mangalore, India

10) **Dr. Tayeb A. Kamali,** Director General, Education and Training, Ministry of Interior - Abu Dhabi, UAE

11) **Prof. Salem Chouaib,** Gustave Roussy, Villejuif – France

12) **Mr. Feroz Allana,** Director, IFFCO Group of Companies - Sharjah, UAE

13) **Mr. Akbar Moideen**, Vice President - Healthcare Division, Thumbay Group - Ajman, UAE.

EXTERNAL ADVISORY BOARD

Chairman:

1) **Mr. Thumbay Moideen**, Founder President, Gulf Medical University, Ajman, UAE

Member/Secretary:

2) **Prof. Gita Ashok Raj**, Provost, Gulf Medical University, Ajman, UAE

Members:

3) **Prof. Raja Bandaranayake**, Consultant and Visiting Professor, Medical Education, Australia

4) **Prof. Ed Peile**, Professor Emeritus of Medical Education, Warwick Medical School, University of Warwick, UK

5) **Dr. Agoston S'zel,** Rector – Semmelweis University, Budapest –Hungary

6) **Prof. Wojciech Zaluska**, Dean of II Faculty of Medicine with English Division - Medical University of Lublin - Lublin, Poland

7) **Dr. Ola Ghaleb Al Ahdab,** Pharmaceutical Advisor and Training and Development Project Manager, Registration and Drug Control Department, Ministry of Health, UAE

8) **Dr. Maryam S. Jaffar,** Head of Dental Services, Ministry of Health and Prevention, Dubai, UAE

4. HISTORIC PREAMBLE

The Gulf Medical University is a private University that has evolved from the Gulf Medical College, which came into existence by Decree No. 1, dated 28 January 1998, issued by His Highness Sheikh Humaid Bin Rashid Al-Nuaimi, Ruler of Ajman and Member of the Supreme Council, UAE.

5. 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.

6. 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.

7. INSTITUTIONAL GOALS

1. To provide high quality academic **programs** in Medicine and Allied Health Sciences that is recognized in and across the globe.
2. To provide a dynamic **curriculum** that fosters student centered learning, critical thinking, team work and life-long learning.
3. To enhance **learning environment** that fosters ethics, humanism, social and cultural values and service to community.
4. To provide opportunities to observe, perform and practice basic clinical/ **professional skills** competently with an understanding of basic and clinical sciences within the health care delivery system.
5. To provide and enhance instructional delivery and **student support services** that address students' needs.
6. To provide opportunities and develop physical **facilities for research** by faculty and students.
7. To enhance the professional and personal **development of faculty, staff and students.**
8. To establish **academic partnerships** with regional and international universities and hospitals engaged in health sciences education.
9. To extend **health care facilities** of high clinical and ethical standards to the local population and people from other Emirates.
10. To establish and strengthen the **institutional processes** that enhances the quality and effectiveness of the programs.

8. STATEMENT OF VALUES

The vision statement and the ten areas of commitment shall provide direction for GMU and inspire the university community to stretch beyond its present level of institutional effectiveness.

Gulf Medical University shall affirm the following values and beliefs:

1. **Commitment to Students:** Each student is individually important and has unique needs and goals. The university shall support students in clarifying their lifelong goals, provide personalized attention and service, assist them in developing their talents and skills, recognize their culture, heritage and lifetime experience, and challenge them to become independent, lifelong learners.
2. **Commitment to Educational Excellence:** Effective teaching brings quality to learning and success is measured by the success of the students. The university shall provide and be accountable for the quality of its educational programs and student support services.

3. **Commitment to Access and Diversity**: The University shall offer equal access to education through an open door admissions policy and maintain the diversity of the community it serves.
4. **Commitment to Faculty and Staff:** Everyone contributes to institutional success by working as a team member towards common goals. All members of the university community will have the opportunity to grow through professional development.
5. **Commitment to a Quality Campus Environment:** A safe, and clean learning environment that is characterized by integrity, clear communications, an open exchange of ideas, appreciation for personal worth, involvement in decision-making and respect for all individuals.
6. **Commitment to the Community:** As members of a larger community, the university shall play an important role in enhancing the quality of life for all members of the community and support opportunities for health development and growth.
7. **Commitment to Effective Use of Resources:** The University shall use resources effectively to provide quality education and research services to students and the community.
8. **Commitment to Research Initiatives:** The University shall pursue excellence in biomedical research that shall have an impact on education and the outcome of clinical care.
9. **Commitment to Health Care Services:** The University shall support health care practice that incorporates the latest advances in knowledge in a manner that supports education and research for the benefit of the community.
10. **Commitment to Effective Governance:** Carry out the responsibilities as the governing body of the University by monitoring and reviewing the operations of the University in a planned manner.

9. LICENSE AND RECOGNITION

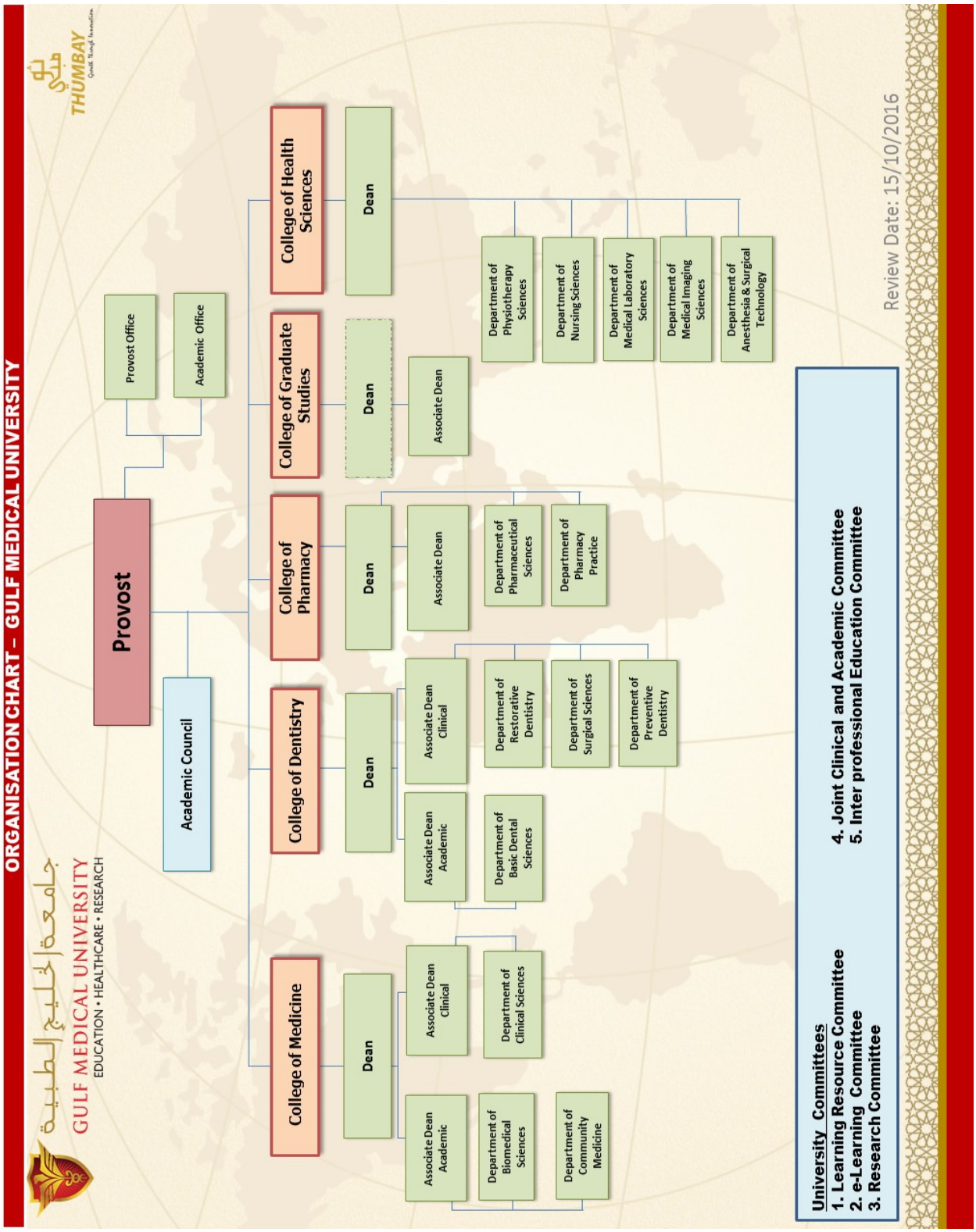
Gulf Medical University is a Commission for Academic Accreditation (CAA) licensed; Private, Higher Education Institute located in Ajman the Northern Emirates of UAE offering Bachelor and Master level programs in Medicine and Allied Health Sciences. All programs offered by the Gulf Medical University have received initial accreditation from the Commission for Academic Accreditation, Ministry of Education – Higher Education Affairs, 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	Associate Degree in Preclinical Sciences (ADPCS)	01/01/2014
13	Bachelor of Health Sciences – Medical Laboratory Sciences (BHS-MLS)	01/06/2014
14	Bachelor of Health Sciences – Medical Imaging Sciences (BHS-MIS)	01/06/2014
15	Bachelor of Health Sciences – Anesthesia & Surgical Technology (BHS-AST)	01/06/2014
16	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

10. ORGANIZATION CHART



11. UNIVERSITY RESOURCES & SERVICES

The GMU Information and Learning Centre provide 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.

11.1 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 21st century for life-long learners to achieve excellence in undergraduate, graduate and professional studies.

11.2 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.

11.3 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.

11.3.1 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.

11.3.2 Library Resources

- Books
- E-Books (Access Medicine)
- Journals (Online)
- Journals (Hard copy)
- CDs
- Video Tapes
- Online Databases:
  Proquest, Access Medicine, Cochrane, UpToDate, USMLEasy, Micromedex

11.3.3 Library Orientation

During the Library Orientation Program at the beginning of each academic year, the library staff member/s provides 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.

11.3.4 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.

11.3.5 Scanning and Printing

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

11.3.6 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.

11.3.7 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.

11.3.8 Cataloguing

The GMU library follows the Anglo-American 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".

11.3.9 Online Public Access Catalogue (OPAC)

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

11.3.10 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.

11.4 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 department chairs, 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 Gulf Medical College Hospital and Research Centre and the affiliated MoH 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, comparison with similar institutions, and direct feedback from all users.

11.5 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.

11.6 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.

11.7 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.

11.8 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. 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.

11.9 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.

11.10 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.

11.11 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.

11.12 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.

11.13 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.

11.14 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.

11.15 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.

11.16 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 high-performance corporate servers that experience heavy loads.

11.17 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.

11.18 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.

11.19 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.

11.20 Procedures for IT Support for faculty-owned and student-owned hardware & software

- IT Department shall provide limited hardware and software support for faculty-owned 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 up gradation 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.
- 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.
- 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 Systems of the University.
- IT personnel shall provide onsite-service to student-owned and faculty-owned devices only in the IT support office/s designated for the purpose.

12. GMU PHYSICAL FACILITIES

12.1 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. 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.

12.2 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 examinations, 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 valuation 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).

12.3 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.

12.4 Masjid

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

12.5 Mail Box

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

12.6 GMU Hostel

Separate hostel facilities for male and female students are provided on request. Resident wardens in the hostels take care of student's needs. Indoor games and Internet facilities are available for recreation and study.

12.7 Transportation

Bus facilities, to commute from residences 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.

12.8 Class Room & Laboratory Protocols

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.

12.9 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.

12.10 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.

12.11 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 is punishable offences.

12.12 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.

13. STUDENT SERVICES

13.1 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 Graduate 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.

13.2 Counseling Services

13.2.1 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
- A student presents a danger to himself / herself or to another person. Student's meeting with a counselor shall be encouraged to discuss any concerns that they have about confidentiality of personal information.

13.2.2 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.

13.2.3 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 that can't be explained such as sudden shifts in mood / behavior.

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.

13.3 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, Graduate

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, Well Baby contests sponsored by GMU and its affiliated hospitals is encouraged and provides opportunities for learning in community – oriented settings.

13.4 GMU Graduate Student Council

The GMU Graduate Student Council comprises of representatives elected from the various academic programs.

13.4.1 Goal

To meet the needs of the diverse graduate population at GMU, and to form one cohesive graduate voice on campus.

13.4.2 Objective

- To serve as the official representative body of students in the various Programs of the College of Graduate Studies.
- To provide a forum for discussion of issues internal and external of concern to graduate students.
- To represent graduate student interests before GMU faculty and administration.
- To organize, promote, and conduct activities beneficial to graduate student life.
- To disseminate information of interest to students in various Graduate Programs
- To provide support and assistance to other GMU Student Organizations.
- To select graduate students for appointment to faculty and university committees.
- To provide a common association among graduate students in all divisions and departments of the College of Graduate Studies

13.4.3 Composition

The Graduate Student Council shall consist of students duly elected as representatives for each Master's Program offered by the College of Graduate Studies.

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/Associate Dean of Student Affairs.

- The Dean/Associate 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/
- Associate Dean of Student Affairs where they will sign a formal document accepting their duties and responsibilities as elected members of the student council
- The elected representatives from the student council will represent in different committee
- The University reserves the right to remove student representatives from their office on disciplinary grounds and/or inadequate performance.

13.4.4 Representation

GMU Student Council 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.

13.4.5 Duties and Responsibilities of Student Representatives

To interact with other students in the class and collect data on matters pertaining to the teaching program, examinations and student welfare measures.

- To bring to the notice of the faculty, Associate Dean or the Dean any matter relating to student activities, which require modifications or corrective measures.
- To attend meetings of Graduate Student Council with the Associate Deans and the Dean at regular intervals. The members of the Council are expected to come prepared with the agenda for such meetings so that all relevant points can be discussed in an orderly manner.
- To identify any personal problem of the students which requires immediate or urgent intervention, and bring this to the notice of the faculty, associate Deans or the Dean
- To recommend effective measures relating to student activities (academics, discipline and welfare).
- To act as a healthy and reliable link between the Graduate students on one hand and the members of faculty and administration on the other.

13.4.6 Graduate Council Student Executive Board

The elected Representatives, made up of one Student from each Program, constitute members of the Executive Board as well, as the number of Graduate Programs is restricted at present, to only three. With the addition of more Programs, the Executive Board will comprise of a General Secretary, Joint Secretary, Coordinator and Treasurer.

13.4.6.1 Terms of Office

Representatives shall serve a term of office concurrent with the academic year. New representatives shall take office at the first meeting of the fall term and remain in office until the beginning of the next fall term.

13.4.6.2 Vacancies

If, for any reason, a vacancy occurs in an appointed position, nominations for that position shall be opened immediately by the General Secretary, and the vacancy shall be filled at any time by majority vote of the Executive Board

13.4.6.3 Removal

The university reserves the right to remove any student representative from their elected office on disciplinary grounds and /or inadequate performance

Also, Individuals serving in appointed positions may be removed from office for dereliction of duties or abuse of power by majority vote of the Executive Board.

13.4.7 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.

13.4.8 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.

13.5 Career Service Office

The University has a full time Career Counselor.

13.6 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 graduates 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).

13.7 Financial Aid Office

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

Refer to Section 17.17 under Financial Aid and Scholarships in this document for further details.

13.8 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 .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.

13.9 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:

- First Aid Service at GMU
- Referral to Thumbay Hospitals
- Coordination between GMU & Thumbay Hospitals
- 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.

13.10 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: (TC:6911) • Anti HBs • Varicella IgG & IgM • Rubella IgG & IgM • Mumps IgG & IgM • Measles IgG & IgM	b. Infectious Screen Panel (TC:6250) • HIV • HCV • HBsAg	c. Vaccinations • BCG, HBV and Tetanus are mandatory • Appropriate vaccines recommended by clinicians are 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 non-communicable 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 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 keep him/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 17.11 Fees for other services of this catalog.

13.11 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.

13.12 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.

13.13 Student Research Policy

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 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.

13.13.1 Definitions

GMU conducts research of both a Social/Behavioral nature, as well as biomedical research both in the university and all its affiliated hospitals. As such, the organization follows the Geneva Convention regulations regarding human subject's 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.

13.13.2 Ethics Committee

The Ethics Committee is established 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, postgraduate research 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

13.13.3 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 write a detailed protocol for the proposed activity, this 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 Investigators 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 anonymity has been made
- Confidentiality of participant 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]

13.14 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 centre by university vehicles.

14. STUDENT'S RIGHTS AND RESPONSIBILITIES

14.1 Student 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.

14.1.1 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.

14.1.2 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;
- 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;

14.1.3 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.

14.1.4 Right to Contribute to University Governance and Curriculum

Students will have the right:

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

14.2 Student 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 and 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, staff, 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.

14.3 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 students' 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.

14.4 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.

14.5 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.

14.6 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.

15. CORPORATE AGREEMENTS

Gulf Medical University (GMU) has established agreements with Ministry of Health (MoH) and Health Authority Abu Dhabi (HAAD) for the clinical training of Gulf Medical University students.

GMU has also established arrangements with Ajman Municipality and Ajman Forensic Laboratory for the clinical training of students in the Master's Program.

16. ADMISSION POLICY, REQUIREMENTS AND PROCEDURES

16.1 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.

16.2 General Admission Requirements

- 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 Education - Higher Education Affairs, UAE.
- Eligible applicants shall be evaluated on the basis of preparedness, ability, aptitude, academic credentials, communication skills, motivation and integrity.
- Applicants shall first be screened for eligibility for the program applied for before being interviewed by the Program Director or Department Chair.
- Applicant shall be a graduate of an accredited school in the UAE or a graduate of an IMED-listed medical school outside the UAE or a graduate of an Allied Health Sciences Program as applicable.
- The Admission Committee shall interview the individuals for their preparedness, ability, aptitude, academic credentials, communication skills, motivation and integrity.
- No applicant shall be discriminated on the basis of sex, race, age, religion, color, national origin or disability status.
- The University shall develop and set additional admission requirements for each program with input from respective program faculty members.
- The University shall require the submission of official transcripts of credit/s earned from all institutions of higher education previously attended.

16.3 Full Admission Requirements

- Applicants for Master's programs offered by the University shall have a recognized Baccalaureate degree earned in a discipline appropriate for the prospective graduate degree with a cumulative grade point average of 3.0 on a 4.0 scale or its established equivalent.
- The Applicant must have proficiency in spoken and written English. The applicant must have passed the English language proficiency test such as TOEFL, IELTS or PTE Academic. A minimum score of 550 TOEFL (213 CBT, 79 iBT), 6.0 IELTS Academic, PTE A (50-57), Cambridge ESOL (52) or any other standardized internationally recognized test approved by the Commission for Academic Accreditation (CAA), Ministry of Education - Higher Education Affairs, UAE with the following exceptions:

  a) Native speaker of English who has completed his / her undergraduate education in an English-medium institution and in a country where English is the official language.
  b) Applicant with an undergraduate qualification from an English-medium institution who can provide evidence of acquiring a minimum TOEFL score of 500 on the Paper-Based test, or its equivalent on another standardized test approved by the Commission for Academic Accreditation (CAA), Ministry of Education - Higher Education Affairs, UAE at the time of admission to his / her undergraduate program.

16.4 Conditional Admission Requirements

1. A student with a recognized baccalaureate degree and a TOEFL score of 530 on the Paper based test, (197 on the Computer based or 71 on the Internet based test) or its equivalent on another standardized test approved by Commission for Academic Accreditation (CAA), Ministry of Education – Higher Education Affairs, UAE may be admitted conditionally to a Master's program. Such student must meet the following requirements during the period of conditional admission or be subject to dismissal from the program:

   a) The student must achieve a TOEFL score of 550 or its equivalent by the end of the first semester.
   b) The student must achieve an overall GPA of 3.0 on a 4.0 point scale or its established equivalent in the first nine credit hours of credit-bearing courses taken for the Master's program.

2. A student with a recognized baccalaureate degree with a CGPA below 3.0 on a 4.0 scale, or its established equivalent, and who meets the English language requirements for general admission requirements may be admitted conditionally. Such student must

meet the following requirements during the period of conditional admission or be subject to dismissal from the program:

a) The student can take a maximum of 9 credit hours in the first semester.
b) The student must achieve an overall GPA of 3.0 on a 4.0 point scale or its established equivalent in the first nine credit hours of credit-bearing courses taken for the Master's program.

Documents required at the time of submitting application for Graduate Admission

- Application Form dully filled by the applicant.
- Attested Copy of the baccalaureate degree.
- Attested Copy of the transcript.
- 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.
- A true copy of applicant's passport.
- Fifteen recent passport-size [35 mm wide by 45 mm high] photographs of self.
- Relevant academic and professional experience certificate.
- Equivalency certificate issued by the Ministry of Education – Higher Education Affairs, UAE for the baccalaureate degree.

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 is required to submit a Medical Fitness Certificate issued from Thumbay Hospital Ajman, UAE within two weeks from the date of admission.

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.

16.5 Minimum Requirements for Admission into the Master of Science in Clinical Pathology Program

The following are the minimum requirements for admission into the Master of Science in Clinical Pathology Program in GMU:

- Bachelor degree in Medicine (MBBS, M.B.Ch.B), from a University / Institute listed in WHO directory of medical schools.
- Distinct undergraduate performance of GPA of 3 on a 4-point scale, or equivalent grade ("B").
- English language proficiency test such as TOEFL, IELTS or PTE Academic. A minimum score of 550 TOEFL (213 CBT, 79 iBT) 6.0 IELTS Academic, PTE A (50-57), Cambridge ESOL (52) or any other standardized internationally recognized test approved by the Commission for Academic Accreditation (CAA), Ministry of Education - Higher Education Affairs, UAE.
- The candidate must show capability to pursue an academic career and research.

  Desirable:

  - Relevant academic and professional experience.
  - A score of (B) in the MBBS subjects of Pathology, Microbiology, and Biochemistry.

16.6 Minimum Requirements for Admission into the Master in Public Health Program

The following are the minimum requirements for admission into the Master in Public Health Program in GMU:

- Bachelor degree in Medicine or Allied Health disciplines from a College or University / Institute listed in WHO directory of medical schools.
- Distinct undergraduate performance of GPA of 3.0 on a 4.0 point scale, or equivalent grade ("B").
- English language proficiency test such as TOEFL, IELTS or PTE Academic. A minimum score of 550 TOEFL (213 CBT, 79 iBT) 6.0 IELTS Academic, PTE A (50-57), Cambridge ESOL (52) or any other standardized internationally recognized test approved by the Commission for Academic Accreditation (CAA), Ministry of Education – Higher Education Affairs, UAE.
- The candidate must show capability to pursue an academic career and research.

  Desirable:

  - Relevant academic and professional experience (working experience in health related fields).

- In the MBBS holding subject, Public Health & Community Medicine score is B or equivalent.

16.7 Minimum Requirements for Admission into the Toxicology Program

The following are the minimum requirements for admission into the Toxicology Program in GMU:

- Bachelor degree in Medicine or Allied Health disciplines from a College or University / Institute listed in WHO directory of medical schools. Students who have not studied Health Sciences, will be instructed to take some additional courses (non-credit) like Anatomy, Physiology and Histology before / during the course.
- Distinct undergraduate performance of GPA of 3.0 on a 4.0 point scale, or equivalent grade ("B").
- English language proficiency test such as TOEFL, IELTS or PTE Academic. A minimum score of 550 TOEFL (213 CBT, 79 iBT) 6.0 IELTS Academic, PTE A (50-57), Cambridge ESOL (52) or any other standardized internationally recognized test approved by the Commission for Academic Accreditation (CAA), Ministry of Education – Higher Education Affairs, UAE.

  Desirable:

  - Relevant academic and professional experience.
  - B grade or equivalent in the relevant subjects such as Biochemistry, Pharmacology, Physiology etc.

16.8 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.

16.9 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 graduate programs applied.
- Only students who are in good academic standing (a minimum cumulative grade point average of 3.0 on a 4.0. scale, or equivalent) for transfer to a graduate program of study similar to that from which the student is transferring shall be accepted 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 graduate program credits only for courses relevant to the degree that provide equivalent learning outcomes and in which the student earned a grade of B (3.0 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, Ministry of Education – Higher Education Affairs, UAE before admission

16.10 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 re-admission and may be re-admitted 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 3.0 can be re-admitted, provided they meet all the other requirements.

16.11 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.

17. STUDENT FINANCE

17.1 Student Finance Policy

The University publishes in the Graduate 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 entitled 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.

17.2 Tuition Fees* (Academic Year 2016 – 2017)

Program	Tuition Fees
Master of Science in Clinical Pathology (MS CP) – 1st & 2nd Year	AED 70,000
Master in Toxicology (M Tox) - 1st & 2nd Year	AED 70,000

Master in Public Health (MPH) – 1st & 2nd Year	AED 70,000
Master of Physical Therapy (MPT)	AED 70,000
Masters in Human Reproductive Biology (MHRB)	AED 75,000
Diploma in Toxicology (Dip Tox)	AED 70,000

* 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. 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.

17.3 Hostel Fees

17.3.1 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

17.3.2 Men's Hostel (Ajman)

Single Room - A	AED 25,000 per year + AED 1000/- Security deposit
Sharing Room	AED 19,000 per year + AED 1000/- Security deposit

17.4 Utility Charges

Utility Charges	AED 1,100 (AED 100 per month for 11 months)

17.5 Evaluation Fees

Program	Fees
Master of Science in Clinical Pathology (MS CP)	AED 2,000
Master in Toxicology (M Tox)	AED 2,000
Master in Public Health (MPH)	AED 2,000
Master of Physical Therapy (MPT)	AED 2,000
Masters in Human Reproductive Biology (MHRB)	AED 2,000
Diploma in Toxicology (Dip Tox)	AED 2,000

17.6 Examination Fees

Program	End Semester Examination	Re-sit Examination
Master of Science in Clinical Pathology (MS CP)	AED 2,000 per semester	AED 2,000 per course
Master in Toxicology (M Tox)	AED 2,000 per semester	AED 2,000 per course
Master in Public Health (MPH)	AED 2,000 per semester	AED 2,000 per course
Master of Physical Therapy (MPT)	AED 2,000 per semester	AED 2,000 per course
Masters in Human Reproductive	AED 2,000 per semester	AED 2,000 per course

Biology (MHRB)		
Diploma in Toxicology (Dip Tox)	AED 2,000 per semester	AED 2,000 per course

17.7 Course Repeaters Fees

Program	Fees
MS CP	AED 3,889 per credit
M Tox	AED 3,590 per credit
MPH	AED 3,182 per credit
Dip Tox	AED 3,590 per credit

17.8 Examination Fees - Course Repeaters

Program	Fees
MS CP	AED 2,000 per course
M Tox	AED 2,000 per course
MPH	AED 2,000 per course
MPT	AED 2,000 per course
MHRB	AED 2,000 per course
Dip Tox	AED 2,000 per course

17.9 Visa Charges

Types of Service	Fees
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

17.10 Caution Deposit

Program	Fees
MS CP	AED 1,500 (Refundable)
M Tox	AED 1,500 (Refundable)
MPH	AED 1,500 (Refundable)
MPT	AED 1,500 (Refundable)
MHRB	AED 1,500 (Refundable)
Dip Tox	AED 1,500 (Refundable)

17.11 Graduation Fees

Program	Fees
Graduation Fees	AED 1,500

All graduates are required to make the payment of AED 1,500/- towards graduation fee to receive the degree in person at the convocation ceremony or in absentia from the Office of the Registers and Records, GMU.

17.12 Living Expense for International Students

Program	Fees
Living Expense for International Students	AED 5,500

17.13 Fees for other Services

Description	Fees
Graduation Fees	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

17.14 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

17.15 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.

17.16 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.

17.17 Financial Aid and Scholarships

Two or more children of the same family are entitled each to a 5% sibling subsidy 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.

17.17.1 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.

17.18 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	0% 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.

17.19 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 re-admission 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.

18. ACADEMIC CREDIT

The academic credit provides a basis to measure the amount of engaged learning time expected of a typical student. One credit is defined as equivalent to 1 hour theory, 2 hours practical or 3 hours clinical per week for 15 weeks.

19. ACADEMIC TERMINOLOGY

Academic Calendar	Listing of all official dates and timelines for the academic year
Academic Year	Period of time from the first day of the first class of the first semester till the last day of the second semester.
Admission	Acceptance into an academic program as a student
Advisor	Faculty member assigned to assist the student
Alumni	Graduates of the Gulf Medical University, Ajman
AST	Anesthesia & Surgical Technology
Bachelor degree	The degree obtained at the end of an undergraduate degree program
BHS	Bachelor of Health Science
BPT	Bachelor in Physical Therapy
BBMS	Bachelor of Biomedical Sciences
Course	A study unit which may include lectures, seminars, clinics, laboratory work to facilitate learning.
Concentration	Concentrations are best thought of as a grouping of courses which represent a sub-specialization within in the major field of study.
CME	Continuing Medical Education
CRRI	Compulsory Resident Rotating Internship
Curriculum	The term refers both to the range of courses offered by an institution and to set of related courses constituting an area of specialization.

Credit hour	One credit hour is defined as equivalent to 1 hour theory or 2 hours practical / clinics per week for 15 weeks.
College	An academic unit of the university
Department	An academic unit of the college
Higher Diploma	A post-graduate qualification resulting from a program of study of a minimum of about 23 credits
Dip Tox	Diploma in Toxicology
Dismissal	Removal of a student from the college due to unacceptable conduct or unsatisfactory academic performance
DMD	Doctor of Dental Medicine
Electives	Courses which are not compulsory for students. Electives may be free-selected by the student from any course offerings, or restricted-chosen from a pre-determined list of options.
Extracurricular	Activities that are a part of the student life but not a part of curriculum of any academic program
Fees	Charges for a program, course or service
Full-time	Requiring more than 18 or more credit hours per semester
Graduate	A student who has completed his / her undergraduate program and is now pursuing a post-graduate program
Internship	A period of compulsory practical on-the job training
Major	The major is the field of study in which a student specializes at the baccalaureate level.
Minor	A minor is a separate field of study outside the major or concentration in which a student has a secondary area of specialization, requiring less course work than the major.
MBBS	Bachelor of Medicine & Bachelor of Surgery
MIS	Medical Imaging Sciences

MHRB	Masters in Human Reproductive Biology
MLS	Medical Laboratory Science
MS	Master of Science
MS CP	Master of Science in Clinical Pathology
MPH	Master in Public Health
MPT	Master of Physical Therapy
MTox	Master in Toxicology
NS	Nursing Science
Program	The set of courses and other formally established learning experiences which together lead to a qualification.
Part-time	A program of study involving at least 8 credits per semester
Pharm D	Doctor of Pharmacy
Pre-requisite	A course that has to be completed before another course can be taken
Probation	A warning regarding potential dismissal
Registration	Process of enrolling in a program or course
Required course	Courses necessary to be completed for completion of the academic program
Semester	A semester is a period of time, typically a minimum of 15 – 18 weeks
Track	A track is a narrow area within the major field, which the student may choose to follow, but which does not lead to a specialized award or degree and is not listed on the diploma or degree certificate.
Transcript	A copy of the students' academic record
Teaching Schedule	List of classes, timings and other details needed to take the course
Undergraduate	A student registered for a Bachelor's degree program
Withdrawal	Leaving the college officially without completing the program

20. GENERAL EDUCATION POLICY

The following goals of general education speak for the breadth, integration, and scaffolding of knowledge, skills, and attitudes that are embedded in the purpose statement of the institute. The goals of general education shall:

- Focus on the essential attitudes and behaviors that promote reflection and encourage life-long learning, wellness, and engagement with ideas, issues, and new experiences.
- Foster the development of critical thinking; the need to continually update their knowledge and translate the advances in medicine in the delivery of healthcare practice to the benefit of the health of the community; and a capacity for attaining individual perspective on one's own life through self-examination and the study of others.
- Engage students in activities that strengthen their ability to read, write, speak, listen, and think effectively using the English language as the primary medium of instruction and communication in their professional practice.
- Provide students with opportunities to examine and reflect upon moral and ethical problems and issues.
- Enable students to use technology in order to access and manipulate information competently.
- Enable students to understand and appreciate the ways social and cultural differences and similarities structure human experiences and knowledge in Islamic studies, history and culture and the social or behavioral sciences. As an important aspect of general education, students shall understand multicultural dimensions of the world in which we live, especially the experiences of people of Arabic descent.
- Emphasize study in breadth and encourage students to explore the ways scientific inquiry in the health sciences can provide solution to the issues of health and promote wellness in their own lives and to render service to the community that they will serve in the practice of their professions after graduation.

MASTER OF SCIENCE IN CLINICAL PATHOLOGY [MS CP]

21. Master Of Science in Clinical Pathology (MS CP)

21.1 Overview

The Master of Science in Clinical Pathology Program Level 9 in the NQF Emirates Standards (National Qualification Framework) is a 2-year program aimed to provide educational experience designed to develop competencies in clinical pathology and the program prepares the MS CP graduates for further Ph.D. / MD studies; resident trainee positions in clinical pathology, teaching assistantship in medical colleges; research assistantship in universities, research centers and biomedical corporations (R&D); after three years in the field as manager of laboratories or as Clinical Pathology practitioners after licensure passage.

The fundamental goal of the Master of Science in Clinical Pathology program is to provide the training and guidance that allow the student to acquire the knowledge and to develop the skills and aspects of competence needed to approach patient care through the use of laboratory service, investigation, and data interpretation.

The program shall be integrated to provide all clinical pathology elements that a beginner level pathologist practitioner requires in the areas of: communication skills and information technology; medical microscopy; clinical microbiology; immunology and immunogenetics; molecular pathology including cytogenetics; hematology and transfusion medicine. Courses in Biostatistics and Research Ethics and Research Methods will enable the students to design research protocols for testing their hypotheses through an investigatory and analytical thinking approach. The didactic courses of all elements of the training will be concentrated during first year of the program to optimize use of faculty members' time and help students to lay strong theoretical foundations of clinical pathology. Integrated community-based practice of clinical laboratory medicine with additional elements of informatics, cost management and systems based practices are important elements of the educational program during the hospital-based rotations in second year of the program. The last semester will be devoted to research work in any one subspecialty leading to submission of a thesis.

21.2 Vision

Our vision is to create a center of excellence for training medical graduates in clinical pathology based on scientific evidence for early diagnosis and develop research skills to face the future challenges in patient care.

21.3 Mission

Our mission is to provide a quality work environment that fosters unity, respect for diversity, teamwork and professional growth. We are committed to:

- Provide the highest quality education, training and research experience.
- Demonstrate application of the diagnostic evidence into clinical practice for early diagnosis, prophylaxis and treatment of diseases.

21.4 Goals and Objectives

The fundamental goal of the Master of Science in Clinical Pathology program is to provide the training and guidance that allow the student to acquire the knowledge and to develop the skills and aspects of competence needed to approach patient care through the use of laboratory service, investigation, and data interpretation.

21.5 Program Learning Outcomes

This program requires developing competencies in the 7 areas mentioned below to the level expected of a specialist beginner. Toward this end, this program defines the specific knowledge, skills, and aspects of competence required and provides educational experiences, as needed, in order for the trainees to develop and demonstrate the competencies.

A. Knowledge

On Completion of this program, the student will be able to:

A1: Apply knowledge about established and evolving biomedical, clinical and cognate sciences (epidemiological and socio-behavioral) to clinical pathology practice in the areas of communication skills and information technology; medical microscopy; clinical microbiology; clinical immunology and immunogenetics; molecular diagnostic and cytogenetics; biostatistics; clinical chemistry; hematology and transfusion medicine; laboratory management; research methods and ethics.

B. Skills

On Completion of this program, the student will be able to:

B1: Provide pathology services that are of optimal value with an awareness and responsiveness to the larger context and system of health care and the ability to access system resources.

B2: Participate in clinical or laboratory research, research seminars or other Intradepartmental scholarly activity with an inquisitive attitude.

C. Aspects of Competence

Autonomy & Responsibilities

On Completion of this program, the student will be able to:

C1a: Demonstrate a satisfactory level of diagnostic competence and assist in the management of patients in the context of clinical pathology services as a beginner in the specialty.

C1b: Demonstrate a commitment to carry out professional responsibilities, adhering to ethical principles, and being sensitive to the needs of a diverse patient population.

Role in Context

On Completion of this program, the student will be able to:

C2: Use interpersonal and communication skills for effective information exchange with team members including clinicians, patients, patients' family members, and laboratory staff in the workplace.

Self-Development

On Completion of this program, the student will be able to:

C3: Evaluate one's diagnostic and consultative competence to seek and integratescientific evidence for improving one's professional competence.

21.6 Program Structure

Master of Science in Clinical Pathology (MS CP)

This program requires to develop competencies in the 7 areas below to the level expected of a specialist beginner. Toward this end, this program defines the specific knowledge, skills, and an attitude required and provides educational experiences, as needed, in order for the trainees to develop and demonstrate the competencies

The MS CP program is being offered as a 36-credit program.

Courses	Credit Hours
General Education	5

Clinical Pathology Courses	31
Total	**36**

21.7 Plan of Study

SEMESTER – 1 [FALL]					
Course Code	**Title**	**Credit Hour**	**Lectures [Contact Hours]**	**Activity [Contact hours per week]**	**Pre-Requisite**
CP 300	Communication and Information Technology	1	-	2	None
CP 301	Medical Microscopy: Blood, Urine and Other Body Fluids	2	1	2	None
CP 302	Clinical Microbiology	2	1	2	None
CP 303	Molecular Diagnostics and Cytogenetics	3	1	4	None
CP 304	Clinical Immunology and Immunogenetics	3	1	4	None
BS 302	Biostatistics	2	1	2	None
Semester Credit Hours		**13**			

SEMESTER – 2 [SPRING]					
Course Code	**Title**	**Credit Hour**	**Lectures [Contact Hours]**	**Activity [Contact hours per week]**	**Pre- Requisite**
CP 305	Clinical Chemistry	4	3	2	None
CP 306	Hematology and Transfusion Medicine	3	2	2	None
CP 307	Laboratory Management	2	1	2	CP 300
RM 303	Research Ethics and Research Methods	2	1	2	BS 302
Semester Credit Hours		**11**			

SEMESTER – 3 [FALL]					
Course Code	**Title**	**Credit Hour**	**Lectures [Contact Hours]**	**Activity [Contact hours per week]**	**Pre- Requisite**
CP 308	Hospital Laboratory Rotations	6	-	30 hr.	CP 300 to CP 307 and BS

					302
Semester Credit Hours		**6**			

SEMESTER – 4 [SPRING]					
Course Code	**Title**	**Credit Hour**	**Lectures [Contact Hours]**	**Activity [Contact hours per week]**	**Pre- Requisite**
CP 399	Thesis	6	-	30 hr.	CP 300 – CP 308 and BS 302
Semester Credit Hours		**6**			
Total Credit Hours		**36**			

21.8 Course Descriptions

Semester –1

CP 300: Communication and Information Technology

During this course, the lessons on communication and IT skills will be conducted throughout the semester in the multimedia lab and the skills laboratories. It serves to introduce the student to the latest trends in e-learning and to lay the foundation to self- directed learning and development of one's interpersonal skills in communication. The course introduces the learner to the five communication principles that enhance interpersonal communication between self and other individuals in small and large group settings. As health delivery systems become more and more team-oriented, increasing competence in this area will help the student as a member of the health care team to work with other health professionals effectively in the delivery of quality healthcare services in the future.

CP 301: Medical Microscopy: Blood, Urine and Other Body Fluids

In this course, the students will concentrate on the study of cell populations in blood, urine and other body fluids and will learn to distinguish cellular patterns in various nonmalignant states. Training will be facilitated through a mix of didactic lectures, bench work, and review of slides and discussions of results of blood, urine and body fluid analyses in the appropriate clinical context. This course serves to introduce the students to the practice of observing safety measures in the clinical laboratories and the risk to one's health following accidental exposure to chemical and biomedical hazardous wastes.

CP 302: Clinical Microbiology

The course will be presented using bench instruction, demonstration and didactic lectures. Lectures will include discussions of case histories that will include participation of the students. The practical bench training will follow procedures followed in the diagnostic laboratory. A mandatory reading list will accompany each bench. The didactic phase will cover background and theory as well as an overview of infectious diseases and the identification of their causative agents.

CP 303: Molecular Diagnostics and Cytogenetics

The course includes both didactic as well as laboratory instruction in the most widely used techniques in molecular biology that are applied for molecular diagnostics and cytogenetics. The student will become familiar with tissue culture techniques utilized in cytogenetics studies of various tissues, staining techniques in the study of chromosomes, principles of karyotyping and cytogenetics nomenclature, and methods & applications of molecular cytogenetics techniques. The student will be also familiarized with the technical aspects of molecular biology and the fundamental biology that provides the basis for the use of these techniques in the diagnosis of disease.

CP 304: Clinical Immunology and Immunogenetics

In this course, the clinical practice and science of immunodiagnostics has been integrated with methods of clinical immunology laboratory testing. Students will be trained in the use and interpretation of immunology tests utilizing the case study approach. Actual cases and published case studies will be reviewed and analyses presented. Case records will be reviewed from first contact, through the differential diagnostic process, to final diagnosis, disposition and current follow-up.

BS 302: Biostatistics

This course will equip the students with advanced knowledge in the application of descriptive and inferential statistics in medical research. The focus will be on numerical computation and interpretation of outcome from a given data set. This course will help students to develop advanced skills in analyzing and interpreting data from Health and Allied Health settings through classroom demonstrations and 'hands on' experience with MS Excel for data management and Statistical Package for Social Sciences (SPSS) for data analysis. This course will give focus to communicating complex statistical information effectively.

Semester – 2

CP 305: Clinical Chemistry

The aim of the clinical chemistry course is to provide the student with a comprehensive and sound theoretical background and the relevant practical skills necessary to appreciate the contemporary issues in diagnostic biochemistry and use this competency in conducting biomedical research.

CP 306: Hematology and Transfusion Medicine

This course will provide a broad based knowledge in both Laboratory Hematology and Transfusion Medicine. The course emphasizes the practice of pathology concerned with the study and diagnosis of human diseases involving the hematopoietic tissues and cells. The student's experience in morphologic hematology integrates morphologic observation and laboratory methodology, including flow cytometry and hematopathology, in the investigation of RBC, WBC, platelet and coagulation disorders. The Transfusion Medicine component covers the basic principles of blood groups, compatibility testing, blood component therapy, adverse effects of transfusion, blood donor collection & screening, and the relevant quality assurance & regulatory aspects.

CP 307: Laboratory Management

The goals of laboratory management training in clinical pathology are to provide the student with knowledge of some of the basic tools used in laboratory management and to provide opportunities for student to participate in the administration of the various laboratories within clinical pathology. The students will be given access to the Laboratory and Hospital Information Management Systems, and throughout the course opportunities to gain an insight into how data is entered and how patient information is accessed during patient care. An insight will be gained into how to set up a new laboratory procedure (or evaluate an existing procedure) including evaluation of the procedure, write up of the procedures and introduce the procedure into the laboratory. This includes a cost accounting of the procedure. The student will also study laboratory quality control and laboratory safety policies.

RM 303: Research Ethics and Research Methods

This course offers an overview of the different approaches, considerations and challenges involved in medical research. This course provides an opportunity to the students to advance their understanding of the principles of quantitative research, developing a research question, choosing study subjects, method of exposure measurement, study designs, planning for data management and analysis. The course also focuses on the

ethical and legal principles pertaining to research, research fraud, academic misconduct, confidentiality and conflict of interest. The course covers international, national and institutional guidelines regarding research in human, animals and vulnerable populations.

Semester – 3

CP 308: Hospital Laboratory Rotations

The student will be posted for rotation for 3 weeks in the subspecialties clinical chemistry, including toxicology & cytogenetics, microbiology, medical microscopy, cytopathology and histopathology, hematology and transfusion medicine, immunology, and laboratory management, which have been integrated to concentrate the experiential learning of clinical pathology in this semester. The student will be familiarized with the daily routine laboratory work in each of the above laboratories, and guided to interpret & evaluate the results of various tests done. They will be able to observe their supervisors/ laboratory specialists participating in patient care consultations. The students will be given one day a week for independent study to allow them to work with a faculty member in pursuit of a particular field of study in clinical pathology. At the end of the semester a research protocol will be submitted for further study in the last semester.

Semester – 4

CP 399: Thesis

The student will be oriented & guided into their research area of interest as part of independent study during the laboratories rotations. Although the student will need to acquire knowledge of various research methodologies so that he/she can address his/her research area from different perspectives, the student will be encouraged to keep his/her research focus more narrow than broad. The general criteria should be taken in consideration in selecting the research topic.

21.9 Thesis/Research Project

Research proposals shall be submitted at the end of third semester at the end of the clinical laboratory rotations. The students will be given one day a week for independent study to allow them to work with a faculty member in pursuit of a particular field of study in clinical pathology. At the end of the semester a research protocol will be submitted for further study in the last semester.

A university research thesis handbook with details on procedures for selection of topics, supervision, health and safety matters, thesis production, assessment and the allocation of responsibilities of all parties involved is currently under development.

MASTER IN PUBLIC HEALTH [MPH]

22. Master in Public Health (MPH)

22.1 Overview

The Master's program Level 9 in the NQF Emirates Standards (National Qualification Framework) in Public Health is a two-year program spanning four semesters. The MPH program is being offered as a 44-credit program. The core curriculum will be covered in the first three semesters (34 credit hours). In the fourth semester, the student will have an Integrated Practicum in the field he/she selects. In this semester, the student will also complete an independent research project (thesis). On successful completion of the courses and thesis the student will be awarded the MPH degree.

The graduate program in Public Health aims at providing knowledge, skills and aspects of competence to all health professionals who wish to pursue a career in Public Health and to those who are already working in this area to further improve their career opportunities. The Program is designed to provide opportunities to gain advanced and up-to-date knowledge and skills that will equip the graduates not only for managerial and leadership positions in the field of Public Health but also for pursuing academic careers in institutes of higher education and research centers.

22.2 Vision

The vision of the Master Public Health Program is to prevent diseases, promote health, and protect the well-being of the community through education, research and public health practices.

22.3 Mission

The Master in Public Health program shall strive to make an impact on the practice of public health in the region through the preparation of competent professionals who are capable of leadership in the public health services, education and research, dedicated to enhance health status and quality of life in local, regional, and global communities.

22.4 Goals and Objectives

The Master in Public Health program shall:

1. Provide instruction in the specialized knowledge and competencies in the five areas basic to public health (social and behavior sciences, biostatistics, epidemiology, environmental health science, and public health management) to practice the essential public health services.

2. Provide an opportunity to integrate the advances of research and evidence based practices, and contributes to scientific knowledge through independent and collaborative research projects and publications.

3. Provide an opportunity to develop professional skills and competencies required to analyze the regional needs, programs and policies in public health services, education and research, and to contribute in policy making and program planning.

4. Collaborate with appropriate community health professionals and organizations to provide, enhance or support service activities to meet the health needs of the different sections of the community.

22.5 Program Learning Outcomes

A. Knowledge

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

A1: Demonstrate highly specialized knowledge of the theoretical concepts, health policies, agencies, sources of information and strategic guidelines related to promoting and maintaining health and equitable health care in the community.
A2: Integrate advance knowledge of principles and procedures involved in epidemiology, surveillance and monitoring of important public health issues.
A3: Demonstrate highly specialized knowledge in the core areas specific to Public Health; Biostatistics, Epidemiology, Social and Behavioral Sciences, Health Policy and Management, Environmental and Occupational Health.
A4: Demonstrate critical awareness of the health services, factors affecting equity of health and healthcare in the community and assessment of interrelationships between these factors.

B. Skills

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

B1: Select and retrieve valid information from a wide variety of sources to be utilized in research, problem solving and community education
B2: Propose innovative solution for prevalent and emerging public health issues based on theoretical models from different disciplines and identifying appropriate target groups and stakeholders.
B3: Plan and conduct a research on an identified public health problem using appropriate methodology, demonstrating originality and self-direction in interpreting the results and drawing conclusions.
B4: Communicate effectively highly complex public health information to professional and lay audience using specialized communication and information technology skills.

B5: Critically evaluate health services, interventions, and outcomes related to public health.

C. Aspects of Competence

Autonomy & Responsibility

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

C1a: Take responsibility to develop, manage innovative need-based public health program independently which empowers the community considering laws and regulation and respecting cultural sensitivity.

Role in Context

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

C2a: Take responsibility to work effectively, independently and with professional team to participate in public health program and solve public health problems.

Self-Development

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

C3a: Conduct continuous self-evaluation and develop professional knowledge and competencies for contribution in evidence based and ethical decision making.

22.6 Program Structure

The program defines the specific knowledge, skills, and attitude required, and provides educational experiences for the trainees to develop and demonstrate the competencies.

The MPH program is being offered as a 44-credit program.

Courses	Credit Hours
General Education	6
Public Health Courses	38
Total	**44**

22.7 Plan of Study

SEMESTER – 1 [FALL]					
Course Code	**Course Title**	**C H**	**L H**	**N L H**	**Pre-Requisite**
MPH 201	Introduction to Public Health	1	1	0	None
MPH 202	Epidemiology and Demography	3	2	2	None
MPH 203	Epidemiology of Communicable and Non Communicable Diseases	3	2	2	None
MPH 204	Social and Behavioral Sciences	3	2	2	None
Semester Credit Hours		**10**			

SEMESTER – 2 [SPRING]					
Course Code	**Course Title**	**C H**	**L H**	**N L H**	**Pre-Requisite**
MPH 205	Biostatistics	3	2	2	None
MPH 206	Environmental Health	3	2	2	None
MPH 207	Health Services	4	2	4	None
MPH 208	Health Promotion Practice	3	1	4	None
Semester Credit Hours		**13**			

SEMESTER – 3 [FALL]					
Course Code	**Course Title**	**C H**	**L H**	**N L H**	**Pre- Requisite**
MPH 209	Research Methods and Ethics	3	2	2	None
MPH 210	Public Health Program Management	4	2	4	None
MPH 211	Occupational Health	4	2	4	None
Semester Credit Hours		**11**			

SEMESTER – 4 [SPRING]					
Course Code	**Course Title**	**C H**	**L H**	**N L H**	**Pre- Requisite**
MPH 212	Integrated Practicum	4	-	8	None
MPH 213	Thesis	6	-	24	MPH 201 to MPH 211
Semester Credit Hours		**10**			
Total Credit Hours		**44**			

22.8 Course Description

Semester – 1

MPH 201: Introduction to Public Health

This is an initial course covered in the first three weeks of the program. It focuses on the key concepts in public health and the role of the public health professionals. It provides an overview of the various areas in public health and the scope therein. It takes lessons from the global experience in the past to the current issues which require attention. It emphasizes the importance of public health and encourages the student to pay attention to the core knowledge areas in the context of the totality.

MPH 202: Epidemiology and Demography

The course provides the concepts, perspectives of epidemiology and demography. It provides highly specialized knowledge in the field of public health epidemiology, emphasizing methods for assessing factors associated with the distribution and etiology of health and disease. Skills include methods for identifying and evaluating sources of health information, calculation of key epidemiologic measures, epidemiological investigation techniques, and evaluation of the strengths and weaknesses of different study designs.

This course is intended for the students to acquire technical expertise in the field of demographical methods in relation to Public Health, and health service need. It includes calculation of vital statistics rates such as fertility rates and mortality rates and the role of these rates in public health. It covers population estimation, construction of population pyramids, migration, population aging, population transition and construction of life table.

MPH 203: Epidemiology of Communicable and Non Communicable Diseases

This course provides an overview and understanding of the fundamentals and trends of communicable and non-communicable diseases. Emphasis will be placed on the diseases that are a public health problem in the region, that produce an adverse impact on morbidity, disability or mortality, that could be specifically targeted for control, elimination or eradication, that have an epidemic potential and new or re-emerging infectious diseases. The course will provide a basic overview of the infectious disease process, including disease agents, transmission routes, immunity and public health significance. The course focuses on principles of infectious disease epidemiology, financial, medical, and social effects, principles of prevention at primary, secondary and tertiary levels.

The course also provides an up-to-date epidemiological perspective on important chronic non-communicable diseases; concepts include distribution, determinants, diagnosis; prognosis and quality of care measures, screening, treatment modalities and surveillance measures. The

course will also review current and proposed prevention and control measures and related issues in non-communicable diseases.

MPH 204: Social and Behavioral Sciences

This course will equip the student with both the theoretical and empirical foundations of medical sociology, social and cultural determinants of health, social problems and its impact on the health of populations, importance of a balanced state of mind in health promotion and disease prevention, use of behavioral sciences to understand and intervene upon current public health problems; imparts the skills required in the application of behavioral science to current public health problems.

Semester – 2

MPH 205: Biostatistics

This course will equip the student with advanced knowledge in the application of descriptive and inferential statistics in public health context. The focus will be on numerical computation and interpretation of outcome from a given data set. This course will help students to develop advanced skills in analyzing and interpreting data from Health, Allied Health, Public Health settings through classroom demonstrations and 'hands on' experience with MS Excel for data management and statistical analysis software such as Statistical Package for Social Science (SPSS) for analysis. This course will give focus to communicating complex statistical information effectively.

MPH 206: Environmental Health

This course provides an overview of environmental health, the variety and extent of environmental issues affecting human health, effects of exposure to biological and chemical agents, radiation, noise, excessive heat and cold, air pollution, water pollution, effects of global warming, and relevant environmental regulations and risk assessment strategies.

MPH 207: Health Services

This course will include the health services provided in the UAE and compare it with the services provided in other countries. The student will know the functioning and practice at the primary health center, referral levels and health care provided to the various groups such as Maternal and Child health, School health services, rural health services, and geriatric health services.

This course also examines the definition of quality in healthcare from the perspective of providers, health planners, and consumers. It focuses on evaluating health care using routine

data, evaluating health care technologies, evaluating health care processes and health care outcomes.

MPH 208: Health Promotion Practice

This course is designed to help students learn how to apply the theoretical frameworks of health promotion toward step-by-step practical approaches for engaging with individuals, families, groups and communities. As a practice planning course, students will explore health promotion strategies among different sections of the community for various health behaviors. They will be addressed bearing in mind the political, social, and economic influences and examining the future of health promotion in the context of health disparities by gender, ethnicity, and rural and urban, socio-economic classes. The course seeks to enable the students to integrate and apply the theoretical knowledge from all the courses in the program, in planning health promotion in the public health contexts.

Semester – 3

MPH 209: Research Methods and Ethics

The course focuses on principles of qualitative and quantitative research, developing a research question; choosing study subjects, measurement methods, study designs; planning for data management and analysis; and principles of writing and analyzing a research paper. The course also focuses on basic ethical and legal principles pertaining to research, and also presents issues in the ethical conduct of research, including data management, research fraud, academic misconduct, confidentiality and conflict of interest. The course covers international, national and institutional guidelines regarding research in human beings, animals and vulnerable populations.

MPH 210: Public Health Program Management

This course translates the key concepts, principles and methods in public health policy development, assessment, evaluation, economics, management and quality into practice. It provides opportunity to link the political, economic, professional, social and legislative issues together, and develop leadership skills in public health management in the context of a multidisciplinary approach in a multicultural context.

MPH 211: Occupational Health

This course focuses on occupational health hazards. Industrial exposures, which may produce work-related disorders and diseases, are explored including their management in the primary setting, referral service and rehabilitation. It covers industrial hygiene and control of occupational health and safety hazards, which includes administrative, training and engineering measures; safety, prevention, ergonomics; and systematic

approaches to the evaluation and management of work-related injury and illness. It covers occupational health policies, the legal aspects and welfare management.

Semester – 4

MPH 212: Integrated Practicum

The Integrated Practicum Course encompass the knowledge, techniques and skills acquired during the previous semesters in epidemiology and demography, biostatistics, Social and behavioral sciences, Environmental health, Health services, Health promotion, Public health management, Occupational Health, Research and ethics into real life practice in a public health setup. This Course will enable the student to gain hands on practical experience under the direct supervision and guidance of a qualified preceptor in public health in order to apply the acquired knowledge into practice.

The integrated practicum course will also enhance the acquired competencies in previous semesters and helps the student to develop other competencies related public health practice. This practicum requires the collaboration of the public health facility/facilities, the University, the faculty and the postgraduate student. Within the integrated practicum the emphasis is placed on the development of professionalism, leadership, managerial competence in a public health system.

The integrated practicum focuses on the synthesis and application of the core and interdisciplinary cross-cutting areas of public health in solving problems identified during the practicum period which will facilitate smooth transition from being a student of public health to becoming a public health professional.

MPH 213: Thesis

A requirement of the Master in Public Health degree is the satisfactory completion of an independent research project. The project will serve as a culminating experience to demonstrate application of the knowledge acquired in the graduate program. Thesis will be based on original research in the field of Public Health; study will be within the resources and the time available to the student and should conform to accepted scientific and ethical standards.

In the third semester, the student would have prepared the study protocol in the Research Methods and Ethics course (MPH 209). In the fourth semester, the student will conduct the study delineated in his/her protocol.

All research projects must be human-based and involve data analysis. The data may consist of existing data sets or data collected by the student specifically for the research project. The completed project will be presented orally on an allotted day to

demonstrate understanding of the topic and ability to defend the study design and interpretation of results.

22.9 Thesis /Research Project

Research proposals shall be submitted at the end of third semester. The students will be given one day a week for independent study to allow them to work with a faculty member in pursuit of a particular field of study in public health. At the end of the semester a research protocol will be submitted for further study in the last semester.

A university research thesis handbook with details on procedures for selection of topics, supervision, health and safety matters, thesis production, assessment and the allocation of responsibilities of all parties involved are currently under development.

DIPLOMA / MASTER IN TOXICOLOGY
[DIP TOX / M TOX]

23. Diploma / Master in Toxicology (Dip Tox/ M Tox)

23.1 Overview

The Master in Toxicology (Level 9 in QFE standards) is offered in four semesters, over two years, for a total of 39 Credits. There are four courses and a Laboratory Rotation in the first semester for 11 Credits; three courses and a Laboratory Rotation in the second semester for 13 Credits; in the third semester there are three courses for 9 credits, with the final semester of 6 credits for Thesis work. Rotations take place in Toxicology, Histopathology and Molecular Biology Laboratories. The Diploma in Toxicology (Level 8 in QFE standards) is offered in two semesters for a total of 24 credits (the same applies to MS toxicology first two semesters).

The Diploma / Master program in Toxicology, offered by the GMU, is designed to provide the candidates with a good foundation of knowledge and skills in all aspects of Toxicology in order to prepare competent professionals and researchers, capable and dedicated, who will effectively contribute to the advancement of health care system in the UAE.

23.2 Vision

Our vision is to be one of the leading organizations in UAE for Toxicology Program by providing high quality education and training to undertake research in multiple areas of clinical and environmental safety.

23.3 Mission

Our program provides accessible, high-quality education in Toxicology that equips students with intellectual and professional skills, ethical principles with a global perspective. In particular, we

- Provide comprehensive and structured curricula in Toxicology training
- Arrange industrial visits and provide platform for innovative research pertaining to human and environmental safety

23.4 Goals and Objectives

By the end of this Program graduate students should be able to:

- Describe the vital processes to which the major classes of chemical agents are subjected within the body and the general principles by which they induce their toxicity
- Explain the cellular and molecular mechanisms occurring in organ systems and whole body when affected by these chemical classes.

- Use their knowledge of cellular mechanisms to predict and design therapeutic management of acute intoxications.
- Demonstrate awareness of the concepts of environmental toxicology and risk assessment
- Find sources of information describing chemicals clinically encountered and analyze such information.
- Demonstrate awareness of the rules and regulations that protect public and personal health and ensure safety
- Integrate knowledge and develop critical thinking skills as they solve toxicology related problems.

23.5 Program Learning Outcomes

A. Knowledge

On completion of this program, graduates will be able to:

A1: Integrate the vital processes to which the major classes of chemical agents are subjected within the body and the general principles by which they induce their toxicity.
A2: Illustrate the cellular and molecular mechanisms occurring in organ systems and whole body when affected by these chemical classes.
A3: Apply the concepts in environmental toxicology and risk assessment.
A4: Analyze information from various sources describing toxicity of chemicals and their management.

B: Skills

On completion of this program, graduates will be able to:

B1: Apply knowledge of cellular mechanisms to predict and design therapeutic management of acute intoxications.
B2: Interpret the rules and regulations that protect public and personal health and ensure safety.
B3: Develop a plan to solve/protect toxicological problems related to public health.
B4: Conduct biomedical research meeting the scientific, experimental, ethical, and legal requirements.
B5: Plan, detect, assess, and prevent the toxicity of xenobiotics and substance of abuse.
B6: Plan and execute experimental studies concerning toxicity and safety. assessments in accordance with good laboratory practices.
B7: Collate, interpret and communicate toxicological information.
B8: Undertake best evidence-based practice in biomedical research.
B9: Conduct a research project in a chosen specialized field of toxicology.

C: Aspects of Competence

C1: Autonomy and Responsibilities

On completion of this program, graduates will be able to:

C1a: Monitor the risk factors and health hazards resulting from exposure to toxic agents in the environment and work out strategies for promoting health care and safety in the society

C1b: Plan appropriate safety measures to protect the general population against poisoning in the prevailing social-cultural set up.

C2: Role in Context

On completion of this program, graduates will be able to:

C2a: Propose solutions and provide expert guidance on health related issues concerning chemical toxicity.

C2b: Interact with various team members and regulatory bodies for promoting health in the community.

C3: Self Development

On completion of this program, graduates will be able to:

C3a: Update current toxicology guidelines and recent advances enhancing health safety.

C3b: Motivated to be life-long leaners to implement innovative health safety practices.

23.6 Program Structure

Diploma in Toxicology (Dip Tox)

The Diploma in Toxicology program is of 12 months' duration. During this period, the students take up only stipulated number of courses without undertaking research project. The course work counts for 24 credit hours of theory and practical work.

Master in Toxicology (M Tox)

The Master in Toxicology Program is of 24 months' duration and includes taught courses and a Research Project with a total of 39 credit hours of theory and practical work.

Writing the research proposal and conducting preliminary studies for the Research Project.

Conducting the practical part of the Research Project and writing the Thesis (6 CH)

Courses	Credit Hours
General Education	4
Toxicology Courses	35
Total	**39**

23.7 Plan of Study

23.7.1 Plan of Study for Diploma in Toxicology

SEMESTER – 1 [FALL]					
Course Code	**Course Title**	**Credit Hours**	**Lectures [Contact Hours]**	**Activity [Contact hours per week]**	**Pre-Requisite**
TX 201	Pharmacokinetics	2	2	0	None
TX 202	Organ and System Toxicology	3	2	2	None
RM 303	Research Ethics and Research Methods	2	1	2	None
BS 302	Biostatistics	2	1	2	None
TX 208	Laboratory Rotation - 1	2	0	20	None
Semester Credit Hours		**11**			

SEMESTER – 2 [SPRING]					
Course Code	**Course Title**	**Credit Hours**	**Lectures [Contact Hours]**	**Activity [Contact Hours per week]**	**Pre-Requisite**
TX 203	Environmental Toxicology	3	2	2	None
TX 204	Recognition and Detection of Acute and Chronic Toxicity	4	2	4	None

TX 205	Molecular and Cellular Mechanisms of Toxicity	4	3	2	None
TX 209	Laboratory Rotation - 2	2	0	20	None
Semester Credit Hours		**13**			
Total Credit Hours = [11 + 13]		**24**			

23.7.2 Plan of Study for Master in Toxicology

SEMESTER – 1 [FALL]					
Course Code	**Course Title**	**Credit Hours**	**Lectures [Contact Hours]**	**Activity [Contact hours per week]**	**Pre-Requisite**
TX 201	Pharmacokinetics	2	2	0	None
TX 202	Organ and System Toxicology	3	2	2	None
RM 303	Research Ethics and Research Methods	2	1	2	None
BS 302	Biostatistics	2	1	2	None
TX 208	Laboratory Rotation - 1	2	0	20	None
Semester Credit Hours		**11**			

SEMESTER – 2 [SPRING]					
Course Code	**Course Title**	**Credit Hours**	**Lectures [Contact Hours]**	**Activity [Contact hours per week]**	**Pre-Requisite**
TX 203	Environmental Toxicology	3	2	2	None
TX 204	Recognition and Detection of Acute and Chronic Toxicity	4	2	4	None
TX 205	Molecular and Cellular Mechanisms of Toxicity	4	3	2	None
TX 209	Laboratory Rotation - 2	2	0	20	None
Semester Credit Hours		**13**			

SEMESTER – 3 [FALL]					
Course Code	**Course Title**	**Credit Hours**	**Lectures [Contact Hours]**	**Activity [Contact hours per week]**	**Pre-Requisites**
TX 301	Pharmacological and Clinical Aspects of Toxicology	4	2	4	TX 201 to TX 209
TX 302	Carcinogenesis	3	2	2	TX 201 to TX 209
TX 303	Modern Techniques in Toxicology	2	2	0	TX 201 to TX 209
Semester Credit Hours		**9**			

SEMESTER – 4 [SPRING]					
Course Code	**Course Title**	**Credit Hours**	**Lectures [Contact Hours]**	**Activity [Contact hours per week]**	**Pre-Requisites**
TX 399	Thesis	6	0	30	TX 201 – TX 303; RM 303 & BS 302
Semester Credit Hours		**6**			
Total Credit Hours = [11 + 13 + 9 + 6]		**39**			

23.8 Course Description

Semester -1

TX 201: Pharmacokinetics

The course describes the disposition of foreign compounds within the body of living organisms. It covers the methods used to study xenobiotic metabolism; their absorption, distribution and excretion, and includes the application of molecular biology techniques to drug metabolism and pharmacogenetics. The major metabolic pathways are described including Phase I and phase II reactions. The effect of species, age, sex and nutrition on these reactions is included. Metabolism and distribution are discussed as a basis for the toxicity of a range of xenobiotics.

TX 202: Organ and System Toxicology

This course describes the adverse effects of drugs, non-therapeutic chemicals, toxicants and other agents in our environment on blood and blood forming tissues, immune system, liver, kidney, reproductive system, nervous system, ocular and visual system, heart and vascular system, skin and endocrine system. This study explains the physiological and biochemical functions of these organs and the consequence of direct or indirect damage caused to these organs by various toxicants and drugs.

RM 303: Research Ethics and Research Methods

This course offers an overview of the different approaches, considerations and challenges involved in medical research. This course provides an opportunity to the students to advance their understanding of the principles of quantitative research, developing a research question, choosing study subjects, method of exposure measurement, study designs, planning for data management and analysis. The course also focuses on the ethical and legal principles pertaining to research, research fraud, academic misconduct, confidentiality and conflict of interest. The course covers international, national and institutional guidelines regarding research in human, animals and vulnerable populations.

BS 302: Biostatistics

This course will equip the student with advanced knowledge in the application of descriptive and inferential statistics in medical research. The focus will be on numerical computation and interpretation of outcome from a given data set. This course will help students to develop advanced skills in analyzing and interpreting data from Health and Allied Health settings through classroom demonstrations and 'hands on' experience with MS Excel for data management and Statistical Package for Social Science (SPSS) for data analysis. This course will give focus on communicating complex statistical information effectively.

TX 208: Laboratory Rotation – 1

The purpose of the Laboratory Rotation is to provide the student with the opportunity to experience different laboratory environments and different experimental approaches and in so doing, assist him or her in choosing a laboratory for thesis work. Currently four laboratories are available for the Student rotation:

1. GMU Histopathology Lab
2. GMU Biochemistry Lab
3. GMU Toxicology Lab

4. GMU Molecular Biology Lab

Assuming that five Diploma and five Master Students will be there, then one Diploma and one Master will be posted in each Lab. The student will spend four weeks in each Lab in the first semester which will count for a total fifteen weeks of rotation. In the second semester, another four weeks will be spent by the Student in each Lab. A teaching coordinator will be appointed in each Lab who will report directly to the program coordinator and provide supervision for the Students in each Lab rotation.

Semester - 2

TX 203: Environmental Toxicology

The course centers on environmental aspects of toxicology. Environmental toxicology considers the measurement and impact of pollutants. Air, water and land contamination is investigated including assessment procedures, regulatory aspects and environmental control and remediation. It also deals with occupational exposures and occupational diseases.

TX 204: Recognition and Detection of Acute and Chronic Toxicity

This course emphasizes the basic concepts of acute and chronic intoxication and seeks to acquaint the student with the skills necessary to identify the basic features of toxicity with different chemical hazards. It covers the topics of toxicant's dose, dose-effect relationship, the bio-mechanisms that govern the action of toxicants within the human body, the various physical and chemical properties and the health effects produced by several groups of toxicants. The exposure scenarios and the analytical tests performed to determine the level of toxicity are defined. The major aim is to integrate basic biochemistry and pharmacology knowledge with clinical application.

TX 205: Molecular and Cellular Mechanisms of Toxicity

The course describes molecular mechanisms of toxicity, including the induction of necrosis and apoptosis, by such mechanisms as covalent binding, oxidative toxicity, lipid peroxidation, aberrant Ca^{2+} status, receptor interactions and altered gene expression. The role of enzyme inhibitors in toxicity is discussed. The course involves the study of pathological responses to toxicity, including specific damage to particular organs. Specialized topics such as immunotoxicity and in vitro toxicity testing are included. Students will recognize acute and chronic inflammation, necrosis, neoplasia, atrophy and hypertrophy, which will be demonstrated by histology.

TX 209: Laboratory Rotation – 2

The purpose of the Laboratory Rotation is to provide the student with the opportunity to experience different laboratory environments and different experimental approaches and in so doing, assist him or her in choosing a laboratory for thesis work. Currently four laboratories are available for the Student rotation:

1. GMU Histopathology Lab
2. GMU Biochemistry Lab
3. GMU Toxicology Lab
4. GMU Molecular Biology Lab

Assuming that five Diploma and five Master Students will be there, then one Diploma and one Master will be posted in each Lab. The student will spend four weeks in each Lab in the first semester which will count for a total fifteen weeks of rotation. In the second semester, another four weeks will be spent by the Student in each Lab. A teaching coordinator will be appointed in each Lab who will report directly to the program coordinator and provide supervision for the Students in each Lab rotation.

Semester – 3

TX 301: Pharmacological and Clinical Aspects of Toxicology

This 18 week course consists of lectures in clinical pharmacology and lectures in clinical toxicology. The module covers the principles of pharmacodynamics and clinical pharmacology trials; drug development; the effects of poisoning with a wide range of pharmacological and chemical agents; environmental poisoning and relevant aspects of physiology, pathology and clinical chemistry.

TX 302: Carcinogenesis

The genotoxic and epigenetic mechanisms of carcinogenesis are covered extensively in this course in an attempt to understand the contribution of the known and the emerging hallmarks of malignancy in the transformation of an initiated cell to a malignant cell. The molecular basis of targeted therapies for cancers and the challenges faced due to continuing evolution and adaptation of the tumors to the cytotoxic drugs will be dealt with in brief.

TX 303: Modern Techniques in Toxicology

In this course, the students will learn the principal, application and uses of various sophisticated instruments in toxicology. They will learn the principles and applications of PCR, microarray, western blot, southern blot techniques in toxicology, The students will be exposed to the basic principles and applications of proteomics, genomics and metabonomics in the field of toxicology. The principles and applications of nanomaterials, their toxicity and methods involved in the toxicity of nanomaterials will be taught to the students. The manifestation of toxicity in relation to the structure of the chemical and evaluation of toxicity based on the structure-activity relationships will be taught to the students.

Semester – 4

TX 399: Research project (Thesis)

This takes place over one year and is an opportunity for the student to select a research topic from their area of interest. Projects can be based in the college, a research institute, a hospital, and an environmental agency or in industry in this country or overseas. They can be laboratory based, computer based or literature/survey based. So a wide variety of exciting opportunities are available but in all cases students will investigate a toxicological problem in depth and write a detailed report of their findings for submission.

Research/Dissertation/ Thesis:

The student is required to submit a thesis for the partial fulfillment of the requirements for M Sc. Degree. Thesis should be based on original research in the field of toxicology, the scope of the study should be within the resources and the time available to the student and should confirm to accepted scientific and ethical standards

In the third semester the student prepares the study protocol and gets it approved. In the fourth semester the student will conduct the study delineated in his protocol. An advisory committee comprising a principal advisor from the Department of Public Health and Community Medicine and 2 other internal and / or external co-advisors from the related field will guide him. After completion of thesis, the student must defend it before the examination committee.

23.9 Thesis/Research Project

The student is required to submit a thesis for the partial fulfillment of the requirements for M Sc. Degree. Thesis should be based on original research in the field of toxicology, the scope of the study should be within the resources and the time available to the student and should confirm to accepted scientific and ethical standards.

In the third semester the student prepares the study protocol and gets it approved. In the fourth semester the student will conduct the study delineated in his protocol. An advisory committee comprising a principal advisor from the Department of Public Health and Community Medicine and 2 other internal and / or external co-advisors from the related field will guide him. After completion of thesis, the student must defend it before the examination committee.

Master of Physical Therapy [MPT]

24. Master of Physical Therapy (MPT)

24.1 Overview

Master of Physical therapy is designed as a 2 years full time program under the College of Graduate Studies, GMU. This program is designed to enhance the clinical and research skills of the candidates who have completed their Bachelor studies in Physical Therapy and emphasizes on advanced trends in the clinical practice and evidence based approach to patient care with a curriculum that meets international standards. This program prepares the scholars for further PhD / DPT studies, teaching or research assistantships, employed as higher ranked therapists in hospitals or clinics either in the government or the private sectors, Rehabilitation / Sports Medicine Centers in the country or abroad as a beginner in the specialty.

The key feature of this program is the curriculum which is designed to enrich the clinical skills in all components of Physical therapy ranging from Musculo Skeletal, Neurological, Cardio-Respiratory, General Medical and Surgical, Gynecological, Pediatric Rehabilitations etc. The didactic courses of all elements of training will be concentrated during I and II semesters and this help the students to have a strong theoretical foundation of clinical Physical therapy. The second year of this program are devoted for clinical rotations, research and dissertation activities.

24.2 Goals

This program of studies leading to the degree of Master of Clinical Physical therapy (MPT) has been developed to produce Physical therapy professional who is a capable clinical practitioner, critical thinker, administrator and advocate. With critical enquiry and evidence-based practice as the foundation, the program promotes the acquisition of advanced academic knowledge, skills and behaviors that are essential for a primary health care provider in a complex and continually evolving health care environment.

24.3 Program Learning Outcomes and Objectives

By the end of the course the graduate of the Master of Clinical Physical Therapy (MPT) program will be able to:

1 **Incorporate the knowledge from foundational and clinical sciences with advanced physical therapy practice**

1.1 Distinguish between normal and abnormal findings through the application of the competencies in the fields of biomedical, behavioral and clinical sciences when undertaking physical therapy management

1.2 Use a general and systems approach to explain the indication for physical therapy intervention in health promotion and rehabilitation

2 Evaluate the patient information appropriate in physical therapy practice and derive a detail problem list and precise diagnosis

2.1 Collect relevant information through history taking and review of medical records
2.2 Examine, grade and document medical and clinical status of body systems
2.3 Perform applicable tests and measures needed for appropriate patient evaluation
2.4 Analyze the data collected through patient evaluation to derive relevant problem lists and arrive at precise diagnosis
2.5 Integrate the patient evaluation data to develop physical therapy protocols and reassess the prognosis

3 Design, compare, scrutinize and execute advanced physical therapy protocols in the delivery of care and justify them based on evidence-based practice

3.1 Design a plan of management that is safe, effective and patient/client- centered
3.2 Involve patient/client, family members, payers and other professionals in planning of care
3.3 Select and apply appropriate physical therapy interventions consistent with physical therapy practice guidelines and re-assess the treatment outcome using appropriate outcome tools
3.4 Substantiate the selection, practice and prognosis through the highest level of evidence-based practice

4 Undertake physical therapy practice as demanded of a member of the rehabilitation team

4.1 Apply management principles when dealing with the other members of the healthcare delivery team
4.2 Apply basic principles of finance, business and marketing to maintain one's practice in compliance with the standards of the regulatory bodies
4.3 Be aware of one's limitations and promptly seek consultation with another team member considering the best interest of the patient
4.4 Be aware of the different modalities of management and refer the client to another health professional when physical therapy alone will not resolve the health problem of the client

5 Communicate commendably at all times with clients, fellow practitioners, interdisciplinary team members, payers and policymakers

5.1 Use the principles and strategies of communication effectively in planning and preparing health education materials and when interacting with payers and policymakers

5.2 Choose verbal, nonverbal, or written communication methods of communication that match the age, gender and culture and professional relationship between patient/client and other members of the health care delivery team

5.3 Be aware of the effect of one's communication approach and strategies on patient/client and other members of the health care delivery team

5.4 Demonstrate awareness of the effects of culture and language upon interpersonal communication between patient/client and other members of the health care delivery team

5.5 Be willing to adapt one's communication strategies to match the needs of the patient/client and other members of the health care delivery team

6 Undertake practice of the physical therapy profession incorporating ethical learning, standard practice, ideal approach and desirable attitude

6.1 Observe and execute professional code of conduct as applicable to physical therapy practice

6.2 Demonstrate integrity in all dealings with patients/clients in the delivery of care

6.3 Comply with all legal requirements as applicable to physical therapy practice in UAE

6.4 Consider all resources that are appropriate and available to the individual patient/ client in the planning and delivery of care

6.5 Exhibit concern for patient's well-being above all other considerations

7 Promote health, fitness and wellness both at the level of the individual and the community, based on the principles of education

7.1 Advocate for health and fitness needs in UAE

7.2 Be involved in the various community education activities concerned with promotion of health and fitness

7.3 Educate and promote community efforts to prevent disease, impairment and health risks considering the age, gender, culture as applicable to physical therapy practice

7.4 Identify gaps in health awareness and health risk factors in the community to develop and provide relevant information to all through appropriate channels

7.5 Be an integral part of a network of local schools, government agencies, professional organizations, businesses in the health sector and individuals to provide consultation in physical therapy practices

8 Evaluate one's physical therapy skills on the basis of current scientific evidence

8.1 Continue to access current information to update one's knowledge and critically justify guidelines published by professional physical therapy organizations

8.2 Integrate and reflect the new information in the delivery of care so that the patient/client will be able to benefit from the latest advances in the field of physical therapy

9 Undertake research investigations on problems requiring research analysis and communicate the conclusions or solutions in the most pertinent format

9.1 Conduct scientific studies to contribute to the development of the physical therapy profession

9.2 Plan, conduct and participate in research activities to develop new knowledge and skills

9.3 Deal with the challenges of complex issues related to physical therapy and arrive at newer ideas and views of problem solving

9.4 Compare, validate and devise scientific approaches to solve research problems

24.4 Plan of Study

SEMESTER – 1 [FALL]					
Course Code	**Title**	**C H**	**L H**	**N L H**	**Pre-Requisite**
MPT-PSM 301	Physical Therapy in Musculo Skeletal Conditions	4	2	4	None
MPT-SPR 301	Sports Rehabilitation	1	1	0	None
MPT-PSD 301	Physical Therapy in Systemic and Psychomatic Disorders	4	2	4	None
MPT-ERG 301	Ergonomics	1	1	0	None
MPT-PMK 301	Patho-mechanics and Kinesiology	2	1	2	None
MPT-EPN 301	Exercise Physiology & Nutrition	2	1	2	None
Semester Credit Hours		**14**			

SEMESTER – 2 [SPRING]					
Course Code	**Title**	**C H**	**L H**	**N L H**	**Pre-Requisite**
MPT-PND 301	Physical Therapy in Neurological Disorders	4	2	4	None
MPT-PPD 301	Physical Therapy in Pediatric Disorders	1	1	0	None
MPT-PCR 301	Physical Therapy in Cardio Vascular & Respiratory Conditions	4	3	2	None
MS-RM 401	Research Methodology	2	1	2	Nil
MS-BS 304	Biostatistics	2	1	2	Nil
Semester Credit Hours		**13**			

SEMESTER – 3 [FALL]					
Course Code	**Title**	**C H**	**L H**	**N L H**	**Pre-Requisite**
MPT-CLR 401	Clinical Rotations	6	0	30	Successful completion of all courses from Semester 1 & 2
Semester Credit Hours		**6**			

SEMESTER – 4 [SPRING]					
Course Code	**Title**	**C H**	**L H**	**N L H**	**Pre-Requisite**
MPT-THS 501	Thesis	6	0	30	MPT-CLR 401
Semester Credit Hours		**6**			
Total Credit Hours		**39**			

24.5 Course Description

Semester – 1

MPT-PSM 301: Physical Therapy in Musculoskeletal Disorders

This course provides the learner with the knowledge regarding the advanced assessment techniques, standard evaluation scales and principles of physical therapy management for musculoskeletal disorders. This course gives the student the additional skills needed to assess and treat complex musculoskeletal dysfunctions using physical therapy techniques. The student will gain knowledge and develop skills to use different soft tissue techniques, special orthopedic physical therapy approaches, taping and strapping techniques in the rehabilitation of various musculoskeletal disorders of upper extremity, lower extremity and spine. There will be emphasis placed on developing the knowledge and skills related to rehabilitation following different orthopedic surgeries.

MPT-SPR 301: Sports Rehabilitation

This course imparts knowledge regarding the principles of assessment and rehabilitation skills related to sports injuries. This course imparts the knowledge, skills and attitudes needed to assess and manage sports injuries by the use of appropriate physical therapy interventions. The course emphasizes on identification of commonly occurring sports injuries, its mechanisms, treatment, rehabilitation and prevention. This course also highlights the importance of nutrition and pharmacology in sports rehabilitation.

MPT-PSD 301: Physical Therapy in Systemic and Psychosomatic Disorders

This course emphasizes on theoretical, physiological and behavioral basis to manage common systemic and psycho-somatic conditions in physical therapy. This course includes case based learning incorporating standardized assessment tool and clinical decision making skills. Students must demonstrate efficient physical therapy examination and treatment abilities in a timely manner which is reflective of a contemporary rehabilitation practice.

MPT-ERG 301: Ergonomics

This course aims to introduce the application of the science of ergonomics. The course emphasizes on work related problems, work designing, industrial health, special care for children, aged and disabled persons by applying ergonomics principle.

MPT-PMK 301: Patho- Mechanics and Kinesiology

This course introduces the learner to apply the principles of biomechanics, musculoskeletal anatomy and basic physics in the clinical system. The learner will develop core knowledge, skills and attitudes needed in the examination of various soft and hard tissues, analysis of normal and abnormal movements, physics of human movements.

MPT-EPN 301: Exercise Physiology and Nutrition

This course aims at the learner to integrate the concepts of exercise physiology, nutrition and human energy expenditure for various activity levels. This course imparts the core knowledge, skills and attitudes needed to assess the systems of energy delivery and its utilization in different population. Student shall further emphasize on the physical and physiological adaptations for various exercise training methods. With the integration of the information and knowledge gained from the course work student learns how to apply an exercise program for the special population.

Semester – 2

MPT-PND 301: Physical Therapy in Neurological Disorders

This course offers opportunities for learner to develop and practice advanced therapeutic principles associated with rehabilitation of neurological disorders. This course introduces the student to the core knowledge and skills needed to treat neurology related disabilities emphasizing on the analysis of clinical findings, to design and implement advanced intervention programs for patients with increasingly complex problems.

MPT-PPD 301: Physical Therapy in Pediatric Disorders

This course will cover a wide range of topics related to the physical therapy practice in pediatrics. The course study emphasizes on developmental disabilities, different assessment methods, conservative physical therapy methods and neuro developmental therapies related to pediatric disabilities. This course gives the student chance to develop physical therapy skills needed to assess and treat pediatric dysfunctions.

MPT-PCR 301 (Physical Therapy in Cardiovascular & Respiratory Conditions) 4 Cr

This course aims at improving the knowledge and understanding of the students to learn and apply evidence based practice in the management of individuals with cardio pulmonary diseases. Further emphasis is placed on physical therapy examination, diagnosis, development of a physical therapy plan of care and documentation to enhance the clinical practice. With the integration of the information and knowledge gained from the course work, students learn how to apply assessment and physical therapy treatment approaches using different techniques through case-based learning. This course gives the student the additional opportunities to practice in the community to provide cardio respiratory fitness training, disability evaluation and counseling for the patients.

MS-RM 401: Research Methodology

The course focuses on basic principles of research and the basic ethical and legal principles pertaining to the research. Opportunities will be provided to develop an inquisitive attitude on the part of the trainee by active participation in clinical or laboratory research, research seminars and presentations.

MS-BS 304: Biostatistics

The course gives an introduction to concepts and methods of descriptive and inferential statistics, with applications. Topics include qualitative and quantitative data, characteristics, sources and presentation, comparison of means and proportions, sampling techniques, hypothesis testing, confidence intervals, parametric and non-parametric tests, linear regression and correlation critical interpretation of research results and the use of computers for data processing and statistical analysis is also practiced.

Semester – 3

MPT-CLR 401: Clinical Rotations

The students will undergo clinical rotation for a period of 4 weeks in specialties of musculoskeletal & sports, neurological, cardio- respiratory and systemic disorders rehabilitation units which will be integrated to concentrate the clinical training of Physical therapy in this semester. The student will be familiarized with the daily routine of clinical duties in each of the above units and will be guided to evaluate, diagnose, plan and execute

Physical therapy treatment protocols to the clients who are indicated. They will be able to observe their supervisors participating in patient care consultations. Students will start data collection as per the research protocol designed and approved in the earlier semester.

Semester – 4

MPT-THS 501: Thesis

In this course students will continue their research studies. The data collected as part of their research study will be entered and analyzed using the statistical software SPSS version 20 data will be interpreted and discussed the supervisory faculty. Before the end of the course the student has to submit a thesis and defend the work in the Viva Voce Examination. The student will also prepare and submit a publishable article.

Masters in Human Reproductive Biology [MHRB]

25. Masters in Human Reproductive Biology (MHRB)

25.1 Overview

The course provides medical and health professionals with advanced theoretical understanding and research training in the applications of human reproductive biology. It provides detailed training in current theories and principles of reproductive science including instruction and experience in various practical skills currently in use.

The various courses offered in the program in sequential order includes introduction to human reproductive science and molecular biology, reproductive physiology which includes reproductive endocrinology in the first semester, biostatistics, embryology and imaging in reproductive science in the second semester, research methodology, infertility, psychosocial aspects of human reproduction and assisted reproductive technology courses in third semester, and law and ethics in the fourth and last semester which includes submission of a research project as part of course requirement.

The course also offers knowledge and understanding of recent advances in reproductive technologies. The candidate gets the experience of observing basic and advanced artificial reproductive techniques during hospital and field visits. There is emphasis not only on development of knowledge and skills but also on development of attitudes like patient privacy and confidentiality, ethical issues, team work etc.

The experiential component of the course includes posting in the molecular biology laboratory and hospital laboratory to gain understanding of estimating hormonal profiles in management of infertility and assisted reproduction, semen analysis and preparation of semen for insemination. They would be posted in the Department of Radio-diagnosis to observe and gain hands-on experience in performing ultrasound examination in patients being investigated for infertility or being monitored for ovulation or for diagnosing early pregnancy or pelvic conditions leading to infertility. They would also get exposure to performing ultrasound examination of the pelvis in females and external genitals in males.

Students will be able to observe advanced assisted reproductive techniques being performed in a Fertility Centre. The advanced procedures include in-vitro fertilization, advanced intra-cytoplasmic sperm injection, etc.

Candidates conduct a prescribed program of research in the last semester under the direct supervision of a member of the academic staff. The supervisor, in consultation with the candidate, is responsible for developing the research program to be followed by the candidate, and for reporting at regular intervals on the candidate's progress. Candidates

submit a thesis in addition to a prescribed coursework component. The work undertaken as part of this degree must constitute a significant contribution to the knowledge and understanding of the chosen research field, and must demonstrate the capacity of the candidate to carry out independent research. Research may be undertaken in areas of human reproduction, women's health, fetal and neonatal physiology, embryology, molecular and cellular endocrinology.

25.2 Goals

The Master's Program in Human Reproductive Biology offered by the College of Graduate Studies, GMU is designed to provide the candidates with a good foundation of knowledge and skills in all aspects of Human Reproductive Biology in order to prepare competent professionals and researchers, capable and dedicated, who will effectively contribute to the advancement of health care system in the UAE.

25.3 Program Learning Outcomes

On completion of the program, the student will be able to:

LO1 Medical knowledge: Understand the structure, development and function of human reproductive system including the deviations from normal, the cytogenetic and molecular basis of disease and application of the knowledge in the diagnosis and management of infertility;

LO2 Patient care: Provide patient care through clerking, diagnosing and managing the patients at the level of a practitioner entering the specialty;

LO3 Communication: Communicate appropriately with patients, relatives, agencies, peers, superiors and other concerned parties through verbal, written, electronic and other relevant channels;

LO4 Information handling skills: Maintain confidentiality of patient information, observe recommended guidelines of implementation and maintain log books pertaining to patient management;

LO5 Team working and leadership skills: Function effectively as a member of multidisciplinary team involved in providing healthcare and appreciate the roles and contributions of other healthcare professionals;

LO6 Attitudes and Ethics: Observe ethical principles, standards, professional values and pay attention to relevant psychosocial and legal issues when engaged in the practice of the specialty in a multicultural society;

LO7 Research and scholarly activities: Practice evidence-based medicine, use appropriate statistical tools and research methods, prioritize needs, responsibilities, assignments and tasks, cope effectively with the uncertainties inherent in the healthcare setting and institute appropriate quality control measures;

LO8 Personal development: Possess relevant self-learning and personal time-management skills so that life-long learning could be undertaken for personal and professional development and develop and maintain a personal portfolio.

25.4 Plan of Study

SEMESTER – 1 [FALL]					
Course Code	**Course Title**	**C H**	**L H**	**N L H**	**Pre-Requisite**
MHRB 301	Structure & Development of Human Reproductive System	2	1	2	None
MHRB 302	Reproductive Physiology	3	2	2	None
MHRB 303	Molecular Diagnostics and Cytogenetics	3	2	2	None
Semester Credit Hours		**8**			

SEMESTER – 2 [SPRING]					
Course Code	**Course Title**	**C H**	**L H**	**N L H**	**Pre-Requisite**
MS-BS 304	Biostatistics	3	2	2	None
MHRB 305	Applied Embryology	2	1	2	MHRB 301, MHRB 302 & MHRB 303
MHRB 306	Imaging in Human Reproductive Biology	2	1	3	MHRB 301, MHRB 302 & MHRB 303
Semester Credit Hours		**7**			

SEMESTER – 3 [FALL]					
Course Code	**Course Title**	**C H**	**L H**	**N L H**	**Pre-Requisite**
MS-RM 401	Research Methodology	2	1	2	None
MHRB 402	Infertility and Assisted Reproduction	4	2	6	MHRB 301, MHRB 302, MHRB 303, MHRB 305 & MHRB 306
MHRB 403	Behavioral Sciences in Human Reproduction	2	1	2	MHRB 301, MHRB 302, MHRB 303, MHRB 305 & MHRB 306
MHRB 404	Assisted Reproductive Techniques	2	--	6	MHRB 301, MHRB 302, MHRB 303, MHRB 305 & MHRB 306
Semester Credits		**10**			

SEMESTER – 4 [SPRING]					
Course Code	**Course Title**	**C H**	**L H**	**N L H**	**Pre-Requisite**
MHRB 501	Law and Ethics	1	1	--	MHRB 301, MHRB 302, MHRB 303, MHRB 305, MHRB 306, MHRB 402, MHRB 403 & MHRB 404
MHRB 503	Thesis	6	6	--	MHRB 301, MHRB 302, MHRB 303, MS-BS 304, MHRB 305, MHRB 306, MS-RM 401, MHRB 402, MHRB 403 & MHRB 404
Semester Credit Hours		**7**			
Total Credit Hours		**32**			

25.5 Course Description

Semester – 1

MHRB 301: Structure and Development of Human Reproductive System

This course would lay emphasis on the normal development and structure of the male and female reproductive systems in detail. The applied aspects would be covered and emphasis would be on the deviations from normal structure and development with implications on the etiology and management of infertility. Structural anatomy of the reproductive system relevant to assisted reproductive techniques would be emphasized. There will be practical sessions in the form of cadaver dissection of the reproductive organs, histology of reproductive organs, osteology of the pelvis and demonstrations on embryology models.

MHRB 302: Reproductive Physiology

The course is designed to study of the physiological processes of reproduction - in both males and females - from gametogenesis to parturition. It deals mainly with the formation, metabolism and functions of hormones related to human reproduction. The regulation of menstrual cycle and cyclical changes in ovarian and pituitary hormones and growth factors together with what governs those changes are described. The functional anatomy of the breast and physiology of milk secretion and production is described. Age-related changes in reproductive tract together with menopause are covered to complete the reproductive phase in females. The mechanism by which reproductive events are perceived, integrated and acted upon by Central Nervous System (CNS) is dealt with in Neuroendocrinology. As endocrinology plays a vital role in etiology and pathogenesis of infertility, knowledge of which is also essential for diagnosis and management, concepts at the molecular level are dealt with in detail to apply in clinical practice.

MHRB 303: Molecular Diagnostics and Cytogenetics

The course covers the two broad areas in genetics. The first, deals with study of chromosomes and their abnormalities and the clinical application of cytogenetic methods in the understanding of the mechanisms and management of genetic disorders. The second deals with molecular genetics and the use of molecular methods in the understanding of the pathogenesis and clinical outcomes of genetic disorders. The course will mainly use seminars to discuss the genetic basis of reported cases relevant to genetic testing in the diagnosis and management of reproductive diseases.

Semester – 2

MS-BS 304: Biostatistics

This course will cover the basic and intermediate statistics that are useful for human reproductive biology settings and advanced statistical techniques that can be used to help solve problems commonly encountered.

MHRB 305: Applied Embryology

This course gives a broad insight into the applied aspects of embryology after a brief review of human embryology from fertilization to implantation of the fertilized zygote. It also deals with the post implantation events taking place in the embryo, abnormal implantation and their consequences. The knowledge thus gained will be applicable to dealing with infertility and assisted reproduction. The principles of fertilization in vitro and in vivo, methods of oocyte retrieval, various embryo and blastocyst culture systems, criteria for embryo selection for transfer, implantation after assisted reproduction and principles of cryobiology are being dealt. The national and international laws pertaining to fertility protection would be emphasized in this course.

MHRB 306: Imaging in Human Reproductive Biology

This course provides a basic outline of all the imaging modalities used in the diagnosis and management of infertility in both male and female patients. An introduction to the basic physics of ultrasound together with instrumentation and operation, bio-effects and safety issues are emphasized followed by hands-on experience in performing basic ultrasound examination under supervision of specialists and consultants in a hospital setting. Ultrasound is considered an extension of physical examination and is a safe and non-invasive modality for diagnosis. It is also the most widely used diagnostic modality for diagnosis, for serial monitoring of progress and for knowing the outcomes of treatment. Hence this course provides the student with an opportunity to learn the skill of performing and interpreting this imaging modality. The use of doppler ultrasound, Hysterosalpingography (HSG), vasography,

X-ray Computed Tomography (CT), Magnetic Resonance Imaging (MRI) in the diagnosis of infertility is reinforced.

Semester – 3

MS-RM 401: Research Methodology

The course focuses on basic principles of research and the basic ethical and legal principles pertaining to the research.

MHRB 402: Infertility and Assisted Reproduction

This course deals with approach to the problem of female and male infertility, etio-pathogenesis of conditions of male and female reproductive tract affecting fertility, evaluation of infertile couples and application of evidence-based approach to discuss management options of infertility based on etio-pathogenesis of infertility including pharmacotherapy, ovarian stimulation regimens and appropriate assisted reproductive techniques or surgical management. The student will be posted in infertility clinics twice a week and would be able to clerk or counsel infertile couples in the ambulatory care settings. The theoretical background and principles of various basic and advanced assisted reproductive techniques would be discussed. The student is expected to maintain a case and procedural log to document cases clerked in the out-patients & wards and procedures observed, assisted or performed.

MHRB 403: Behavioral Sciences in Human Reproduction

The course will introduce the concepts related to individual and community behavior in the area of sexuality and reproduction. It will acquaint the student with the normal sexual development, adult sexual behavior, and variant behaviors, and related psycho-social environment especially family and culture. It will explore the psychosocial implications of infertility and assisted reproduction. The course will enable the student to communicate appropriately at professional, scientific and service settings and counseling situations. It will introduce the public health concepts and services related to reproductive medicine.

MHRB 404: Assisted Reproductive Techniques

This course provides a complete experiential learning for the student to observe basic to advanced assisted reproductive techniques from intrauterine insemination to intra-cytoplasmic sperm injections. The students having acquired a sound theoretical knowledge of all aspects of human reproductive biology from structure and development of human reproductive system through reproductive physiology, molecular diagnostics and cytogenetics, embryology, imaging in diagnosis, infertility and assisted reproductive techniques and also the laws governing the practice of assisted reproduction and ethical

issues concerning assisted reproduction, will enable them to appreciate the evidence-based application of the same in clinical practice and also appreciate outcomes of treatment. Each student would be visiting IVF fertility center on two days a week for the entire semester comprising of 15 weeks. The field visit would also enable the student to gain insight into the organization and administration of a fertility center and IVF Laboratory to emphasize that focused care improves patient outcomes. The student will learn how to manage personnel, equipments and supplies for a fertility center.

Semester – 4

MHRB 501: Law and Ethics

The course provides an introduction to basic ethical theory, primarily concerned with the principles and standards of professional conduct, and an overview of a range of issues related to reproductive ethics, that result from the development of new technologies and innovations. This course focuses specifically on reproductive rights, abortion, prenatal testing, gamete donation or selling, and contract pregnancy. Particular attention will be paid to why each of these issues is controversial and debates and seminars would be some of the teaching / learning method employed in this course. This course also incorporates national and international laws governing the practice of assisted reproductive techniques.

MHRB 503: Thesis

The student will submit a thesis proposal to an advisory committee comprising of one principal supervisor from the Department of Obstetrics and Gynecology, College of Medicine and two other internal or external faculty members, before enrolment to the rotations in different laboratories. The advisory committee will recommend the thesis proposal to the University research & ethics committee for approval. The thesis proposal should highlight the first three chapters of the thesis manuscript including introduction, review of literature, and methodology. Once the thesis proposal has been approved the student is granted permission to carry out data collection. The students will be orientated & guided into their research area of interest as part of independent study during the laboratories rotations. Although the student will need to acquire knowledge of various research methodologies so that he/she can address his/her research area from different perspectives, the student will be encouraged to keep his/her research focus more narrow than broad. The general criteria that should be taken in consideration in selecting the research topic include:

- The topic should be within the area of the student's interest that the student will find the journey of research, and publication much more pleasurable when he / she has a genuine interest in the topic.

- The research topic should be of scientific importance either from a basic or clinical standpoint.
- The research topic must have potential for thematic research where the student can study an area through a series of research projects without exhausting the topic. In thematic research the student may find the answer to one research question in a study, but this finding leads the student to ask subsequent research questions resulting in further studies. In this way the student builds scientific findings through systematic testing of hypotheses.

The student will participate in research presentations/ seminars/ conferences.

The thesis is an original piece of student research work and the thesis manuscript may vary in length depending upon the topic being researched. While rotating in different laboratories, the students will start preparing the actual research work and will continue the research over the fourth semester. Student's research work will be under the supervision of the advisory committee. Projects can be based in the college, a research institute, or a hospital, in this country or overseas.

CENTER FOR CONTINUING EDUCATION & COMMUNITY OUTREACH (CCE & CO)

26. CENTER FOR CONTINUING EDUCATION & COMMUNITY OUTREACH (CCE & CO)

26.1 Overview

Gulf Medical University is committed to excellence in research, teaching, patient care, and the advancement of the art and science of Medicine. To this end, the mission of its continuing medical education programs is to improve patient care by providing lifelong educational opportunities for physicians and allied health professionals and health care workers based upon identified needs that will in turn improve the health care of patients both now and for future generations.

Another goal is to improve the career satisfaction of physicians and allied health professionals by providing them with educational opportunities which keep them current with the latest developments in Medicine and Allied Health Sciences, while simultaneously offering current faculty and CME participants the opportunity to interact with physicians and other allied health professionals at other institutions through CME activities.

The medical university is committed to the maintenance and continued development of a community of scientific and clinical scholarship. The scope of the CME program shall appropriately cater to the needs of health professionals in all areas of medicine based on an assessment of their educational needs. The CME offerings for the local community of health professionals shall be concentrated in areas where the Colleges of GMU and its affiliates have recognized excellence, while its in-house activities shall attempt to complement its academic and clinical strengths.

The potential participants for the CME activities are:

- Physicians and other health professionals on the staff of all the colleges and its affiliated hospitals
- Alumni of the Colleges of Medicine, Pharmacy, Dentistry, Allied Health Sciences and Graduate Studies and the current students.
- Physicians located in the communities surrounding the Gulf Medical College Hospital and its affiliates (SKHA, UAQH, & MH).
- Physicians and allied health professionals and health care workers practicing and working in Ajman and the neighboring Emirates.

To address these educational needs participants, the Center for Continuing Education & Community Outreach (CCE&CO) shall offer medical and allied health education programs that shall be primarily face to face courses workshop and conferences. However, in response to changing physician needs and making optimum use of new technologies, it shall produce

learning packages including internet-based activities, although they are not currently a major focus of its educational efforts. Collaborating with extramural organizations of recognized merit to offer jointly sponsored programs will also be considered part of its mission.

The overall CME program efforts shall result in activities that succeed in the transmission and application of knowledge of medicine and allied health sciences. Understanding the impact of the CME activities on patient care is central to the mission of these programs. The CCE&CO shall assess the outcome of its programs, with studies undertaken to assess changes in participant's knowledge, attitudes and behaviour as a result of participation in its CME activities, and to endeavour to understand the impact these have on patient care.

Through the CCE&CO the university shall reach out to the employed and unemployed health workforce in the community in an attempt to extend the educational resources of GMU and additional courses and activities to the non-traditional learners to complete their degree or advance their education.

The CCE&CO shall extend the University's educational resources and services through its outreach programs and provide non-credit and credit-based instructional programs for individuals, organizations, and businesses in the health sector. The CCE&CO shall provide coordination, logistical support and administrative oversight of all distance and college-based continuing education programs to help the University fulfil its educational mission. During this year, the center will be re-organized as the Office for Continuing Education and Community Outreach, to serve better the University's mission and vision as a comprehensive university for generating a skilled health work force for the country.

The center shall offer lifelong learning courses, services, and programs designed to meet the personal improvement, career, and cultural needs of individuals. Courses shall be non-credit and include special interest, certificate programs, computer skills; professional development and test preparation. Various non-credit educational programs (workshops, seminars, short courses, etc.) shall be scheduled throughout the year by the colleges of the University and the CCE&CO making it possible for the University to serve greater numbers of people of all ages with richer and more diversified programs. The programs vary in length from one day to less than 12 months, and the subject matter shall be selected as needed for the group being served.

CE units shall be awarded to participants who successfully complete programs that are sponsored by the CCE&CO and approved by an academic unit. Transcripts indicating awarded CE units shall be made available.

The CCE&CO shall develop programs for the health professionals and industry, government, professional, civic, and service groups. A variety of instructional methods shall be used to assure maximum participation. Distinguished faculty members from GMU and other institutions of higher education, and national and international resource persons shall serve as consultants, instructors, and lecturers for the programs.

Professional program coordinators shall be available to provide technical assistance in program planning, budget preparation, and evaluation, and to assist organizations in developing programs consistent with the needs of the group and the overall educational objectives of the university.

The Health Communication Division (HCD) shall assist in the delivery of short-term programs (conferences, workshops, symposia, and seminars) consistent with the needs of specific groups and organizations to broaden their professional competencies. This division currently serves the academic and administrative units of the University as well as liaises between organizations such as government agencies, schools, professional organizations, and other interest groups.

The HCD shall accommodate activities that require only management support during the conference itself, as well as those that require a full complement of services. Professional program coordinators shall provide assistance with conducting needs assessments, technical program design, program budget development, instructional resources, brochure preparation, logistics, registration, and recording of Continuing Education Units, on-site program management, program evaluation and issue of certificates.

26.2 Vision

The Center for Continuing Education and Community Outreach will be the portal of entry to gateway of opportunity for professional advancement of individuals, communities, and organizations that form the health workforce of UAE by providing them access to learning, research, and educational services.

26.3 Mission

To facilitate the power of lifelong learning that transforms lives by providing exceptional educational opportunities to graduates of Medicine and Allied Health Professions and employed non-traditional learners within Ajman and neighboring Emirates.

ACADEMIC REGULATIONS

27. ACADEMIC REGULATIONS

Grading, Assessment, Progression and Completion Policies

27.1 Grading Policy

Scores Percentage	Grade	Grade Value
90 - 100	A	4
85 - 89	B+	3.5
80 - 84	B	3
< 80	F	0

27.2 Assessment Policy

Assessment shall be both formative and summative

27.2.1 Formative Assessment

This is a continuous process carried throughout the period of study and consists of weekly class tests, tutorials, interactive computer-based tests, assignments, feedback during small group discussions, and assessment of learning outcomes by faculty and students self-assessment of learning outcomes.

27.2.2 Summative Assessment

Summative assessments include Continuous Assessment and End Semester or Professional Examinations. Theory examination will be in the form of MCQs, SAQs, EMIs and MEQs. The practical/ clinical examination will be in the form of experiments / laboratory exercises/ OSPEs and OSCEs. Viva Voce will form a part of the practical examination.

27.3 Progression Policy

Normal duration of the programs shall be 2 years (4 semesters). Each semester is made up of about 15 weeks. Maximum permissible duration of the program is 4 years.

The program is credit-based. 3-4 courses are offered in different semesters. Each course carries a specified number of credits. A student must earn a GPA of 3.0 or above in each of the courses offered and a CGPA of 3.0 is required to successfully complete that semester.

- A student shall be issued dismissal warning if his / her GPA is < 2.5 but ≥ 2.0.
- A student shall be issued dismissal warning with no appeal if his / her GPA is < 2.0.

Academic Probation is applicable to any student who scores CGPA less than 3.0 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 3.0, 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 15 credits. Students who have a CGPA of less than 3.0 shall not be permitted to register for new courses until they have successfully completed all previous failed courses.

Any student who is conditionally admitted can register only 9 credit hours in the first semester.

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.

27.4 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 re-totaling should be made within 30 days after the publication of results. The Dean Assessment & Evaluation may appoint a member of the Assessment Committee for review and retotaling. If any error is noticed, the correction and amendment shall be made by the Dean, Assessment & Evaluation.

27.5 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 medical reasons, renewal of residence permit abroad etc. a waiver of up to a maximum of 20% attendance will be considered subject to the submission of medical certificate or any other document related to the absence from the class by the attendance review committee. In case the attendance is below 80% in any course, this will be treated as non-fulfillment of the credit hour requirement and **F** grade will be awarded automatically and the student shall be asked to register again for the course.

27.6 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.

DEGREE AND PROGRAM COMPLETION POLICY

28. DEGREE AND PROGRAM COMPLETION POLICY

All students are expected to study the program and course details provided in the student handbook and university catalog. For any one degree all requirements under the terms of the catalog in effect at and after their admission must be met.

Candidates must satisfy all university and program requirements established by the faculty. 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 student must:

- Be continuously enrolled in the program from admission to graduation.
- Have satisfied all conditions of his or her 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, to the University 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.

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.

Specific Completion Requirements of each Program

Master of Science in Clinical Pathology (MS CP):

- Completion of 36 credits.
- Obtaining a minimum GPA of 3.0.
- Obtaining a minimum pass mark of 80% (Grade B) for each course.
- Submitting and defending a project work up to the satisfaction of the project evaluation committee with a minimum pass mark of 80%.
- Securing a minimum attendance of 80%.

Master in Public Health (MPH):

- Completion of 44 credits
- Obtaining a minimum GPA of 3.0
- Obtaining a minimum pass mark of 80% (Grade B) for each course
- Submitting and defending a project work up to the satisfaction of the project evaluation committee with a minimum pass mark of 80%
- Securing a minimum attendance of 80%

Master in Toxicology (M TOX):

- Completion of 39 credits
- Obtaining a minimum GPA of 3.0
- Obtaining a minimum pass mark of 80% (Grade B) for each course
- Submitting and defending a project work up to the satisfaction of the project evaluation committee with a minimum pass mark of 80%
- Securing a minimum attendance of 80%

Diploma in Toxicology (DIP TOX):

- Completion of 24 credits
- Obtaining a minimum GPA of 3.0
- Obtaining a minimum pass mark of 80% (Grade B) for each course
- Securing a minimum attendance of 80%

Master of Physical Therapy (MPT)

- Completion of 39 credits.
- Obtaining a minimum GPA of 3.0
- Obtaining a minimum pass mark of 80% (Grade B) for each course.
- Submit and defend a thesis up to the satisfaction of the thesis judging committee with a minimum pass mark of 80%.
- Securing a minimum attendance of 80%.

Masters in Human Reproductive Biology (MHRB)

- Completion of 32 credits.
- Obtaining a minimum GPA of 3.0
- Obtaining a minimum pass mark of 80% (Grade B) for each course.
- Submit and defend a thesis up to the satisfaction of the thesis judging committee with a minimum pass mark of 80%.
- Securing a minimum attendance of 80%.

ADMINISTRATORS & FACULTY

29. ADMINISTRATORS & FACULTY

Administrators

Mr. Thumbay Moideen	Founder President
Prof. Gita Ashok Raj	Provost
Prof. Mohammed Arifulla	Dean, Admissions & Registers
Prof. R. Chandramouli	Dean, Assessment & Evaluation
Dr. Joshua Ashok	Dean, Student Affairs
Prof. Manda Venkatramana	Dean, College of Medicine
Prof. Mohamed Said Hamed	Dean, College of Medicine
Prof. Arun Shirwaikar	Dean, College of Pharmacy
Dr. Praveen Kumar	Dean, College of Allied Health Sciences
Prof. Anoop Kumar Agarwal	Associate Dean, College of Graduate Studies

List of Faculty Members

No.	Name	Qualifications	Conferring University	Designation
1	Prof. Shatha Saeed Hamed Al-Sharbatti	PhD – Community Medicine, 1998	Baghdad University, Iraq	Professor
2	Prof. Gomathi Kadayam Guruswami	PhD – Biochemistry, 1993	All India Institute of Medical Science, India	Professor
3	Prof. Jayadevan Sreedharan	PhD – Epidemiology, 2014 PhD – Statistics, 2000	University of Tampere, Finland University of Kerala, India	Professor
4	Prof. Tatjana Ille	PhD – Medical Statistics and Informatics, 1999	University of Belgrade, Serbia	Professor
5	Prof. Anoop Kumar Agarwal	PhD – Pharmacology, 1988	Postgraduate Institute of Medical Education and Research, Chandigarh, India	Professor
6	Prof. Palat Krishna Menon	PhD – Medical Microbiology, 1998	Bangalore University, India	Adjunct Professor
7	Dr. Ahmed Nabil Mohamed Abou-Taleb	MD – Public Health (Occupational Health & Industrial Medicine), 1987	Alexandria University, Egypt	Adjunct Professor

8	Dr. May Khalil Ismail	PhD – Biochemistry, 2006	University of Mosul, Iraq	Associate Professor
9	Dr. Dusan Surdilovic	PhD – Preventive & Pediatric Dentistry, 2008	University of NIS, Serbia	Associate Professor
10	Dr. Kishore Gnana Sam Sundararaj	PhD - Clinical Pharmacy, 2009	Manipal University, India	Associate Professor
11	Dr. Ahmed Sebihi	PhD – Social Sciences and Psychology, 2010	Grant Town University, USA	Associate Professor
12	Dr. Rolan Mahassen	PhD – Pathology 2006	University of Damascus, Syria	Adjunct Associate Professor
13	Dr. Janita Rita Trinita Pinto	PhD – Microbiology, 2013	Vinayaka Mission University, India	Assistant Professor
14	Dr. Victor Raj Mohan Chandrasekaran	PhD – Toxicology, 2006	University of Madras, India	Assistant Professor
15	Dr. Eman Hassan Ibrahim Hassanein	MD – Pathology, 2011	Al Azhar University, Egypt	Assistant Professor
16	Dr. Ramprasad Muthukrishnan	PhD – Sports Medicine & Physiotherapy, 2011	Guru Nanak Dev University, India	Assistant Professor
17	Dr. Radhika Taroor	PhD – Psychology, 2011	Mother Teresa Women's University, India	Assistant Professor
18	Dr. Preetha Jayasheela Shetty	PhD – Genetics, 2011	Osmania University, India	Assistant Professor
19	Dr. Nazeerullah Rahamathullah	PhD – Microbiology, 2011	Bharathidasan University, India	Assistant Professor
20	Dr. Lamis Mohamed Nader Saad Abdel Aal	MD – Forensic Medicine & Clinical Toxicology, 2014	Cairo University, Egypt	Adjunct Assistant Professor
21	Dr. Manjunath Nimmakayalu	PhD – Zoology (Cytogenetics), 1994	Bangalore University, India	Adjunct Assistant Professor

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