

# PROSPECTUS 2025-26



## KHYBER MEDICAL UNIVERSITY

Phase-V, Hayatabad, Peshawar,  
Khyber Pakhtunkhwa,  
Pakistan

Tel: +92919217703, 9217696, 9217697.

Fax: +92919217704.

# INTRODUCTION

## COAT OF ARMS

The Quran Verse is Prayer ***“O’ God bless me with Wisdom”***

- KMU is abbreviation of Khyber Medical University
- The staff and snake are the symbols of the medical profession.



***The staff (stick, support) and the snakes intertwined around it, is called “Caduceus”, symbolizing medicines. It originated from the Greek god of healing, Asclepius who is represented with a snake; snake is an ancient symbol of physical & spiritual healing.***

Khyber Medical University reserves the right to make any amendments in policy, regulations or other affairs related to these programs.

# *Prospectus*

*2025-26*

**KHYBER MEDICAL  
UNIVERSITY**

**Phase-V, Hayatabad,  
Peshawar,  
Khyber Pakhtunkhwa, Pakistan  
Tel: +92919217703, 9217696, 9217697;**

## Message from the Vice Chancellor Khyber Medical University

It is with a sense of solemn responsibility that I address you at the dawn of a new era in the academic history of Khyber Medical University. We witnessed substantial horizontal growth initiated by the valorous efforts and inclusive vision of the pioneers of this beacon of knowledge in the region. Within a short span of 18 years since inception 2007 to 2025, twenty constituent and 263 affiliated institutes were added to the university, and a faculty of 424 eminent scholars was enlisted, including 67 doctors of philosophy, an unprecedented achievement and a matter of pride for any institution. The keen reception of various programs and courses offered by the university among scholars from a wide range of health disciplines is an ever-strengthening evidence of the verity of that vision. Appreciating our pioneers' accomplishments, let us now initiate the much-needed paradigm shift in the academic stance of the institution; let us take education from being to becoming. We need to bring our structures, processes and outcomes at par with the best international institutions, with the aim of empowering our scholars to actualize their potentials, bringing them to their rightful place in the forefront of scientific discovery and innovation as per Global demands. To that end, we shall work with a commitment to teamwork and seamless integration, aiming at peerless eminence in not only acquiring but generating knowledge. Our education must impart scholastic depths and lifelong commitment to learning and objective exploration of reality with insights into the systems perspective to our scholars. That, in the long run, will lead to substantive research/development.



Ongoing, locally owned and managed audits, incorporating adjustment for random variation, will be an integral part of all entities and all processes. Without such objective assessment, management reduces to a blindfolded drive. Accompanying this address, I present a 120-day plan regarding initiatives of immediate priority. The key target areas are institutional expansion, process and service enhancement, and effective redress systems for general and ethical concerns, ensuring confidentiality. Task forces composed of employees with experience in the relevant areas are to be formed for pragmatic planning and implementation with documented audit trails in all three domains. Periodic review reports will be generated and a central coordination council will be put in place for oversight, support, review and follow up of all initiatives in the best interest of institution/public. Fully cognizant of the burden of responsibility I am committing to; let us reach for strength in our history where small teams of committed individuals sharing a vision and a higher purpose achieved success still resounding through the echelons of history. For my colleagues, faculty members, employees from all departments and units, and our scholars, I reiterate our mission of becoming and staying a role model of research-driven, practice-informed, diverse, inclusive and equitable institution of academic excellence with the highest standards of ethical behavior at all levels, living up to our values of integrity, inclusiveness, diversity, innovation, equity, and rigorous science/economic will being and prosperity.

Let us join in a prayer for the strength and wisdom to actualize the vision we are setting for ourselves and to serve the nation.

**Professor Dr. Zia Ul Haq**  
Vice Chancellor

## Message from the Registrar Khyber Medical University

Khyber Medical University was established on 13<sup>th</sup> January, 2007 to provide an ideal environment for the transfer of knowledge, research and innovation to strengthen the health care delivery system benefiting all citizens of Khyber Pakhtunkhwa.

The University has progressed immensely during the decade since its establishment. However, its evolution to the present stature is a saga of hard work, commitment, dedication and integrity. During this period KMU succeeded in developing a culture and environment that invited new students and staff giving them the opportunity to polish and support their talent, creativity and obligations to become visionary leaders across all the relevant fields.

With its twenty constituent institutes including a medical and dental college with 263 affiliated institutes the University is producing highly qualified health human resource through a variety of programs at the undergraduate and postgraduate level.

We have the largest number of highly qualified PhD faculty in Basic Medical Sciences and are the pioneers to start PhD Programs in Public Health and Ph.D. in Health Professions Education is in pipeline. It is further to mention that KMU is catering the demands of both public as well as private sector by delivering medical doctors, dental surgeons, Physical Therapists, Nurses, Technologists in paramedical sciences, Public Health Professionals, Educationists in health professions and PhDs in Basic Medical Sciences and Public Health.

In order to provide leadership in prevention and control of non-communicable and communicable diseases, Khyber Medical University has embarked upon establishing Research Institute of Diabetes & Endocrinology and Non Communicable Disease (RIDEDNCD) and Research Institute of Hepatology & Hepato-Biliary Pancreatic- surgery and transplant (RIHEHPT) under one roof in the university campus sponsored by HEC and federal government as an highly sophisticated resource for the scholars and researchers. This facility shall offer state of art services for liver transplant with the possibility of pancreatic transplant as a cure for diabetes in the future.

Moreover, the tremendous efforts and laborious spadework over the past year has yielded fruit as KMU achieved another milestone by collaborating with World Health Organization, NIH Islamabad and Department of Health KPK to establish a state of the art Public Health Reference Lab (PHRL).

It is worth mentioning that the establishment of PHRL at a Khyber Medical University is a unique experiment of its kind in the whole region. It will be the first and only provincial PHRL after the NIH and is a moment of pride for the University for being entrusted with this profound responsibility to advise the Department of Health KP on health related matters especially diagnosis and prevention of diseases, investigation of epidemics and to act as reference center for the diagnosis and surveillance of disease especially the infectious disease.

With these remarks I congratulate the students joining KMU and wish them an enlightened future ahead.



# CONTENTS

## Contents

INTRODUCTION .....	10
KMU VISION.....	10
KMU MISSION.....	10
KMU VALUES .....	10
KMU'S TOP TEN PRIORITIES.....	10
FEE POLICY:.....	13
IBMS-KMU FINANCIAL ASSISTANCE / MERIT AWARD .....	14
IBMS COMMITTEES .....	15
QUALITY ENHANCEMENT CELL.....	19
INSTITUTE OF BASIC MEDICAL SCIENCES .....	22
INTRODUCTION .....	23
MESSAGE OF THE DEAN BASIC MEDICAL SCIENCES.....	23
MESSAGE OF THE DIRECTOR .....	24
Vision .....	25
Mission .....	25
Objectives .....	25
Core values .....	25
Core Activities.....	25
Career Opportunities.....	25
Faculty: .....	27
Teaching and Learning Methods .....	29
Assessment Methods .....	29
Compulsory Courses.....	29
Specialty Courses.....	29
Optional Courses .....	29
Registration in the University.....	30
Attendance .....	30
Cancellation of Enrolment.....	30
Fee Structure for M.Phil and Ph.D Basic Sciences Programs: .....	30

Facilities .....	31
Infrastructure: .....	31
Accommodation: .....	31
Wi-Fi and IT support .....	31
Library .....	32
Research Furth.....	32
Journal .....	32
Sports Facilities.....	33
Laboratories.....	33
Metabolic Room .....	33
Molecular biology Lab .....	33
Physiology Lab .....	34
Biochemistry lab .....	34
Anatomy lab .....	34
Cell Culture Lab.....	34
Dental Materials Lab .....	35
Oral Biology Lab.....	35
Histopathology Lab.....	35
Animal House.....	35
Khyber Pakhtunkhwa (KP) Public Health Reference Laboratory (PHRL) .....	36
Student Resource Centre.....	36
ACADEMIC PROGRAMS .....	38
PhD (Doctor of Philosophy) .....	38
Mission .....	38
Overview.....	38
Outcomes .....	38
Objectives .....	38
Cognitive Domain .....	38
Psychomotor Domain .....	39
Affective Domain .....	39
Program Details .....	39
PhD timeline .....	40
PhD Advisory Committee (PAC) Advisors .....	41
Program Duration .....	41
DISTRIBUTION OF SEATS:.....	41



Fee Structure: The fee structure of Ph.D programs are as under:-.....	41
Program structure .....	42
Review Process .....	43
*Scientific report .....	43
#Presentation in the PhD review committee .....	43
Thesis pending period .....	44
Qualifying Examinations and Defence.....	44
Advancement to Candidacy.....	44
Doctoral Oral Qualifying Examination (Thesis defence).....	45
Fellowships .....	45
Course Outline.....	46
MPHIL (MASTER OF PHILOSOPHY) .....	48
Mission .....	48
Overview.....	48
Outcomes .....	48
PROGRAM DETAILS.....	48
Timeline for M.Phil Process .....	50
Mentors .....	50
Duration of M.Phil Degree.....	50
Programme structure .....	51
Review Process .....	51
*Scientific report .....	52
#Presentation .....	53
Thesis pending period .....	53
Qualifying Examinations and Defense.....	53
M.Phil Oral Qualifying Examination (Thesis defense) .....	53
Courses Outline .....	55
DISTRIBUTION OF SEATS:.....	58
Fee Structure: .....	58
Certificate and Diploma Courses .....	58
DISTRIBUTION OF SEATS AND FEE STRUCTURE: .....	61
IBMS ACADEMIC AND RESEARCH ACTIVITIES.....	61
1. Basic Medical Sciences Research Symposia (BMS-RS) forum.....	61
2. Biosafety Trainings .....	65
3. BMedCon Series: .....	66

## INTRODUCTION

Khyber Medical University is one of the new generations of Medical Universities in Pakistan, established through Khyber Medical University Act 2006 (KPK Act No. 1 of 2007). The University is envisaged to grow as a modern Centre of excellence in the field of medical sciences and technology. Khyber Medical University is committed to the provision of intellectual leadership and development and to emerge as a beacon of light for regional hubs in scientific, educational and technological development in the field of health care.

## KMU VISION

Khyber Medical University will be the global leader in health sciences academics and research for efficient and compassionate health care.

## KMU MISSION

Khyber Medical University aims to promote professional competence through learning and innovation for providing comprehensive quality health care to the nation.

## KMU VALUES

- Personal honesty, integrity and respect for humanitarian, traditional and cultural values.
- Generation, synthesis, application and dissemination of knowledge.
- The Medical Education Continuum is a system for lifelong learning.
- Personal and professional development of faculty and support staff.
- Mutual respect and collaboration.
- Personal, institutional and professional accountability.
- Service to local, regional, national and international communities.
- Continuous improvement of our programs through processes of sustainable development.

## KMU'S TOP TEN PRIORITIES

1. Establish a multi-dimensional Comprehensive Health Care Approach encompassing all four elements of health i.e. prevention, promotion, curative intervention & rehabilitation.
2. Develop a Health Care Team approach at all levels of health care delivery for a comprehensive health care delivery system.
3. Enhance the level of Education in Basic Medical Sciences, Nursing and Allied Health Sciences, And Public Health.
4. Include Behavioral Sciences and Humanities in the Medical Education Curriculum.
5. Define a dynamic, relevant, comprehensive, evidence / outcome based curricula that accommodate healthy extra curricular, literary and cultural activities.
6. Convert to the Semester System of Education.
7. Implement an objective and Continuous System of Evaluation.
8. Create the Health Education Continuum (UGME, PGME, CME, CPD, & CED) with opportunities & commitment for life long learning.
9. Promote evidence based medical practice through Innovation, Scholarship, Partnership & Collaborations and Biomedical Research.
10. Exercise the concepts of Academic Audit, Research Audit & Clinical Audit.

Khyber Medical University is offering the following programs in its constituent institutes.

S#	Institute	Program
1.	IBMS	Ph.D in Anatomy
2.		Ph.D in Biochemistry
3.		Ph.D in Physiology
4.		Ph.D in Molecular Biology and Genetics
5.		Ph.D in Dental Materials
6.		M. Phil in Anatomy
7.		M. Phil in Biochemistry
8.		M. Phil in Physiology
9.		M. Phil in Molecular Biology& Genetics
10.		M. Phil in Human Nutrition
11.		M.Phil in Forensic Medicine and Toxicology
12.		M. Phil in Dental Materials
13.		M. Phil in Oral Biology
14.		Certificate/Diploma in Clinical Nutrition
15.		Certificate/Diploma in Biorisk management
16.		Certificate/Diploma in Animal handling
17.		Certificate/Diploma in Transfusion Practices
18.		Certificate/Diploma in Applied biostatistics
19.	IPDM	Ph.D in Haematology
20.		Ph.D in Histopathology
21.		Ph.D in Microbiology
22.		Ph.D in Oral Pathology
23.		M. Phil in Pharmacology
24.		M. Phil in Haematology
25.		M. Phil in Histopathology
26.		M. Phil in Microbiology
27.		M. Phil in Oral Pathology
28.		Certificate in Quality Management in Clinical Laboratories (CQMCL)
29.		Certificate in Biorisk Management (CBRM)
30.		Certificate in Phlebotomy Technology (CPT)
31.		Certificate in Genetic Counselling
32.		Certificate in Infection Prevention and Control
33.	IPS	Ph.D in Pharmacology
34.		M.Phil in Pharmacology
35.	IPH&SS	Ph.D in Public Health
36.		MPH General
37.		MPH NCDs
38.		MPH MNCH
39.		MPH Hospital Administration
40.		Master in Epidemiology & Biostatistics Program
41.		Master in Health Research (MHR)
42.		Diploma in Family Medicine (DFM)
43.		Master in Health Research (MHR)
44.		M.Phil Community Dentistry
45.		Diploma in Health Research (01 year)
46.		Certificate in Health Research (06 months)
47.		Diploma in Diabetology (Primary Care)
48.		Certificate in Palliative Care
49.	IHPE&R	Ph.D in Health Profession Education (in pipeline)
50.		Master in Health Profession Education
51.		Certificate in Health Profession Education (CHPE)

52.	IPM&R	MS in Musculoskeletal Therapy
53.		MS in Neurological Therapy
54.		Doctor of Physical Therapy
55.		BS Occupational Therapy Program
56.		BS in Speech and Language Pathology Program
57.		Transitional-DPT (t-DPT)
58.		Transitional BS Occupational Therapy
59.	INS	MS Nursing
60.		BS Nursing
61.		BS Nursing Post RN
62.	IMS	MBBS
63.	IDS	BDS
64.	IPMS	BS Anesthesia Technology
65.		BS Cardiology Technology
66.		BS Dental Technology / Therapy
67.		BS Respiratory Therapy & Intensive Care Technology
68.		BS Medical Lab. Technology (Pathology)
69.		BS Renal Dialysis Technology
70.		BS Radiology Technology
71.		BS Surgical Technology
72.		BS Cardiac Perfusion Technology
73.		BS Neurophysiology Technology

**FEE POLICY:**

- a) The fee and dues will be charged from each student irrespective of his / her year/ Semester of admission as per details given in the prospectus.
- b) All fees and dues of the first semester must be paid on or before the last date mentioned in the offer letter/merit list of admission, otherwise his/her admission will be cancelled and seat will be offered to the next candidate on merit list.
- c) For subsequent semesters fee and dues for academic year if not paid within 15 days of start of semester a fine of Rs. 100/- per day will be imposed. If the student fails to pay his/her fee and dues within 30 days, his/her name will be struck off from the institution.
- d) Calculation of late fee fine:-  
The late fee fine shall be calculated from the due date till the date of deposition of semester fee, if the semester fee is submitted before the end of each respective semester/annum the fine should be up to a maximum of Rs. 10,000/- Ten thousand only.

**Note:**

- **The University has the right to increase the fee at a rate of 10 % annually.**
- There is no fee concession/installment policy in Khyber Medical University.
- Fine once levied will not be condoned.

**DETAINED STUDENTS FEE:**

- i. Students of the Institute of Basic Medical Sciences (IBMS), Khyber Medical University, who fail in the annual or semester examination and are re-admitted in the same class shall be required to deposit 50% of the prescribed tuition fee for the relevant year/semester. In case of re-appearance in failed subject(s), one-fourth (1/4) of the total annual tuition fee per failed subject shall be charged.
- ii. Those students who do not appear in the final term exam due to shortage of attendance, wilful absence shall be charged 100% tuition fee for that semester and will be liable to repeat classes.

**FEE FOR REPEATING MODULE:**

Students of the Institute of Basic Medical Sciences (IBMS), Khyber Medical University, who intend to repeat a dropped module shall be required to pay 50% of the prescribed semester tuition fee for the relevant year/semester.

## FEE REFUND POLICY:

The Fee Refund Policy in case of cancellation of admission at the Institute of Basic Medical Sciences (IBMS), Khyber Medical University, shall be implemented in accordance with the guidelines of the Higher Education Commission (HEC), Islamabad, as outlined below:-

### 1. Students who are offered admission before the commencement of classes: -

%age of Fee*	Timeline** for Semester / Trimester System	Timeline for Annual System
Full (100%) fee Refund	Up to 7 <sup>th</sup> day of commencement of Classes	Up to 15 <sup>th</sup> day of commencement of classes
Half (50%) fee Refund	From 8 <sup>th</sup> to 15 <sup>th</sup> day of the commencement of classes	From 16 <sup>th</sup> – 30 <sup>th</sup> day of commencement of classes
No Fee (0%) Refund	From 16 <sup>th</sup> day of commencement of classes	From 31 <sup>st</sup> day of commencement of classes

- I. \* **%age of fee** shall be applicable on all components of fee, except for security and admission charges.
- II. \*\* **Timeline** shall be calculated continuously, covering both weekdays and weekends.

### 2. Students who are offered admission after commencement of the classes:-

%age of Fee*	Timeline** for Semester / Trimester System	Timeline for Annual System
Full (100%) fee Refund	Up to 7 <sup>th</sup> day of offer of admission	Up to 15 <sup>th</sup> day of offer of admission
Half (50%) fee Refund	From 8 <sup>th</sup> to 15 <sup>th</sup> day of offer of admission	From 16 <sup>th</sup> – 30 <sup>th</sup> day of offer of admission
No Fee (0%) Refund	From 16 <sup>th</sup> day of offer of admission	From 31 <sup>st</sup> day of offer of admission

- I. \* **%age of fee** shall be applicable on all components of fee, except for security and admission charges.
- II. \*\* **Timeline** shall be calculated continuously, covering both weekdays and weekends.

## IBMS-KMU FINANCIAL ASSISTANCE / MERIT AWARD

Students of the Institute of Basic Medical Sciences (IBMS), Khyber Medical University, Peshawar, may avail the following financial assistance, subject to the availability of funds:

### 1. KMU FINANCIAL ASSISTANCE / NEED-BASED SCHOLARSHIP:

Khyber Medical University encourages its needy students to pursue their studies by providing them financial assistance from KMU endowment fund and its other resources.

### 2. HEC NEED-BASED SCHOLARSHIPS: Higher Education Commission (HEC) aims to assist needy students by providing access to quality education through needs-based scholarships, providing an opportunity for talented, academically qualified students from remote and rural areas of Pakistan (FATA, Khyber Pakhtunkhwa and Baluchistan), who are financially disadvantaged and are incapable of meeting higher education costs in various disciplines.

### 3. USAID NEED-BASED SCHOLARSHIPS: The United States Agency for International Development (USAID) is committed to play its role in the progress and development of the higher education sector and has offered scholarships to financially disadvantaged students to study Medical and Allied Health Sciences. The scholarships will be offered to the students fulfilling their criteria and subject to availability of funds.

### 4. PRIME MINISTER TUITION FEE REIMBURSEMENT SCHEME: The Higher Education Commission, Islamabad support the educational sector of the following less developed areas of Khyber Pakhtunkhwa and FATA under the Prime Minister Tuition Fee Reimbursement Scheme and pay tuition fee of the students studying in Masters, M.Phil and PhD programs in all Public Sector Universities of Pakistan, subject to availability of funds.

<b>FATA</b>	Bajaur, Khyber ,Kurram, South Waziristan, North Waziristan, Mohmand, Orakzai, FR Peshawar ,FR Kohat, FR Bannu, FR Lakki ,FR D.I. Khan, FR Tank
<b>Selected Areas of Khyber Pakhtunkhwa</b>	Chitral, Lower Dir, Upper Dir, Swat, Buner, Shangla, Malakand, Kohistan, D.I.Khan, Tank,Hangu, Lakki Marwat, Battagram, Bannu, Kohat, Kala Dhaka/Torghar and Karak

**6. CHIEF MINISTER EDUCATIONAL ENDOWMENT SCHOLARSHIP SCHEME:** The Govt. of Khyber Pakhtunkhwa has established the Chief Minister's Educational Endowment Fund (CMEEF) for provision of scholarships to the students of Khyber Pakhtunkhwa in undergraduate and graduate programs in various disciplines on the basis of merit-cum-affordability. The scholarship covers all the expenses, including a monthly stipend of Rs. 5000/- per month. The details of allocation and number of scholarship are as under:-

Name of Institute	Discipline	M. Phil	Ph.D
KMU, Peshawar	Anatomy	1	1
	Microbiology	1	1

**Note:** All the students who are sponsored under any scholarship scheme shall deposit their fee within the due date as determined from time to time. The scholarship as and when received by this University will be disbursed amongst the students accordingly.

**HOSTEL ACCOMMODATION:** The students admitted in KMU will be responsible to make their own arrangements for their boarding and lodging.

**STUDY TOUR:** There will be only one study tour of students for the entire period of study.

## IBMS COMMITTEES

The scrutiny and admission committees for all programs offered in the Institute of Basic Medical Sciences of KMU are as under:-

### SCRUTINY AND ADMISSION COMMITTEE

- |  |                  |
|--|------------------|
| 1. Director/Principal/Coordinator of the concerned institute                 | <b>Chairman</b>  |
| 2. Two Faculty member (against each discipline offered)                      | <b>Member</b>    |
| 3. Director Academics & Admissions or his nominee                            | <b>Member</b>    |
| 4. Office Manager/Section In-charge/Office Assistant (Concerned Institution) | <b>Secretary</b> |

### TORS OF THE SCRUTINY COMMITTEE:

- The committee shall scrutinize admission application forms for the respective advertised program in light of the approved eligibility criteria/advertisement and accord weightage (academics, experience, higher qualification, publications, entry test etc.) on the prescribed proforma for preparation of merit list.
- The committee shall complete the assigned task and submit the report (merit list) to the concerned Admission Committee.
- The committee shall be responsible to address the concerns of the applicants regarding their ineligibility (if any) and weightage accorded in the merit.

### TORS OF THE ADMISSION COMMITTEE:

- The committee shall evaluate the candidates in light of the eligibility and selection criteria.
- The committee shall conduct a test/interview and select suitable candidates for admission.

- iii. The committee shall submit the recommendation of selected candidates for admission to the Competent Authority for approval.
- iv. The committee shall also be responsible to review the admission policy from time to time and suggest changes for consideration and approval by the Competent Authority.

#### **APPELLATE COMMITTEE**

The right of appeals against the decision of the Admission Committee will vest in the Appellate Committee which will consist of the following.

- |                                   |                      |
|-----------------------------------|----------------------|
| 1. Vice Chancellor, KMU           | Chairman             |
| 2. Registrar, KMU                 | Member-cum-Secretary |
| 3. Controller of Examination, KMU | Member               |

#### **INELIGIBILITY FOR ADMISSION:**

1. Any individual who has been expelled from any university or college on grounds of misconduct, use of unfair means in examinations, offences involving moral turpitude, or for any other valid reason shall not be eligible for admission to the Institute of Basic Medical Sciences (IBMS), Khyber Medical University.
2. Anyone who has been admitted earlier to any program but later was declared to have ceased to be a student of the university under these regulations shall not be allowed admission.

**DISABILITY COMMITTEE:** The disability committee for the Constituent Institutions of KMU are as under:-

#### **DISABILITY COMMITTEE**

- |  |           |
|--|-----------|
| 1. Director (Academics & Admissions)   | Chairman  |
| 2. Prof. Dr. Saleem Khattak  | Member    |
| 3. Prof. Dr. Asghar Kamal  | Member    |
| 4. Dr. Haider Darain, Assistant Professor  | Member    |
| 5. Any Co-opted Member(s) to be nominated by the Vice Chancellor related to the speciality | Member    |
| 6. Deputy Director Admissions  | Secretary |

The committee shall examine the disabled candidates for admission against disabled reserved seats in the Constituent Institutions of Khyber Medical University under the special package for physically handicapped students of the Govt. of Khyber Pakhtunkhwa.

**SPECIAL PACKAGE FOR PHYSICALLY HANDICAPPED/DISABLED/SPECIAL STUDENTS:** Special package for physically handicapped, disabled and special student in Public sector Universities/Institute of Khyber Pakhtunkhwa duly communicated by Higher Education, Archives and Libraries Department Govt. of Khyber Pakhtunkhwa vide No. SO (UE-I) HE/4-15/2014/4068-87 dated 30.12.2013, is opted as under:-

- i. Age relaxation up to 10 years for taking admission in any institution of Higher Education in Khyber Pakhtunkhwa.
- ii. Waiving Off all institutional charges including tuition fee, hostel fee and utility bills.
- iii. Provision of ramps/special pathways, toilets and other basic facilities, retrofitting in the existing buildings and to ensure the same in future construction.
- iv. Special transport facility for their mobility within the premises of the institution.
- v. Reservation of at least one seat for higher qualification i.e. M. Phil & Ph.D in all public sector universities/institutions under the Higher Education Department.

#### **QUOTA SEATS FOR DISABLED CANDIDATES**



The disabled candidates selected by the “Disability Committee” with a valid domicile of Khyber Pakhtunkhwa / FATA of the candidate and his/her father and fulfilling all the other criteria for admission to Khyber Medical University can apply on these seats. In case the father of the candidate is not alive then the mother's valid domicile of Khyber Pakhtunkhwa / FATA will be considered.

To be considered on open merit as well as disabled candidates seats, the candidates must apply against both the categories. However, it will be the choice of the candidate to avail open merit or disabled seat.

The disabled candidates are required to provide a registration certificate from the Social Welfare Department Government of Khyber Pakhtunkhwa, stating that:

- a. He/She is a disabled candidate, But
- b. He/She is mentally fit and physically able to carry out his/her studies and can perform professional duties after qualifying the M. Phil program.

The disabled candidate will be required to produce a certificate from a Government certified specialist as per following proforma in the prospectus. Such a certificate will only make him/her eligible to apply against the reserved seats for disabled. The disability Committee constituted for the purpose will make the final decision about the suitability of the candidate for admission against the reserved seats.

-Sample -  
**DISABILITY CERTIFICATE**

It is certified that Mr. /Miss \_\_\_\_\_ S/D/o \_\_\_\_\_ is suffering from \_\_\_\_\_. It is certified that his/her disability is a **permanent** condition. It is further certified that his/ her disability puts him/ her at disadvantage as compared to a normal person for acquiring education before entering the Institute of Basic Medical Sciences, Khyber Medical University, but otherwise he/she is **capable of performing his/her duties satisfactorily**. It is further certified that his/her disability is not of such a severity as to prevent him/her from pursuing education in Basic Medical Sciences or fulfilling the academic requirements of the IBMS degree programs. Moreover I certify that at present he/she is **mentally fit and physically able** to carry on studies and perform professional duties after qualifying the M. Phil program.

**(Full Signature)**

(To be signed by certified specialists in the relevant field in the Government Hospitals).

**Name of the Consultant** \_\_\_\_\_

**Designation** \_\_\_\_\_

**Specialty** \_\_\_\_\_

**Qualification** \_\_\_\_\_

**Present Place of Posting** \_\_\_\_\_

**Official Stamp bearing name, Designation and Place of Duty.** \_\_\_\_\_

**Date** \_\_\_\_\_

-----

**ELIGIBILITY CRITERIA FOR DISABILITY**

Disability for the purpose of admission to Institute of Basic Medical Sciences, Khyber Medical University is defined as that degree of physical impairment which puts the candidate at disadvantage as compared to a normal person for acquiring education before entering the University, but otherwise is capable of performing his/her duties

Satisfactorily as a student and later as a professional. The terms “severely disabled and comparison of disabilities” are not applicable because:-

- i. A severely disabled person is ineligible.
- ii. Disease/ disabilities affecting different organ systems are in no way comparable.
- b. The disability shall be of permanent nature.
- c. The candidate shall be declared disabled by the Medical Board for disabled candidates.
- d. The Medical Board will issue a certificate of disability.
- e. In case of any dispute regarding the decision of the Medical Board, an appeal should be made within 48 hours before the Appellate Medical Board. The decision of the Appellate Medical Board shall be final.
- f. Selection against these seats will be done by JAC on merit from amongst the certified disabled candidates.

**APPELLATE MEDICAL BOARD FOR DISABLED CANDIDATES**

In case of any dispute regarding disability, an appeal should be made within 48 hours to the Appellate Medical Board. The Appellate Board will comprise of the serving / retired Professors of all the concerned specialties and will be constituted by the Chairman Joint Admission Committee. The decision of the Appellate Medical Board shall be final, after approval of Chairman Joint Admission Committee.

**ENROLLMENT/REGISTRATION IN COURSES IN SEMESTER SYSTEM:**

Students shall not be allowed to add or drop a course/change of discipline after the end of the second week of the First Semester.

**iGet ENTRY TEST (LOCAL) CONDUCTED BY KMU:**

Appearance in the iGet entry test is mandatory for admission in Ph.D programs. The validity of the iGet subject test is two (02) years.

## QUALITY ENHANCEMENT CELL

### Vision

To ensure high standards of education in the field of health and social sciences, at undergraduate and postgraduate levels, through an effective, consistent and innovative setup of quality enhancement mechanism, at KMU.

### Mission

To enhance, promote and sustain the quality of university's educational programs to the highest standards at the national, regional and international levels through effective policies, based on informed decisions, continuous monitoring and controlling measures.

Quality Enhancement Cell of Khyber Medical University aims to facilitate stakeholders of the University for their Maximum Delivery and input through implementation of Quality Assurance parameters and guidelines in Higher Education. It strives to recognize the programs not only from concerned councils but also committed to achieve the Public confidence through its acceptable processes and policies.

### Impact of QEC activities is as under:

- Faculty Motivation through award of appreciation certificates on achievement of benchmark of 85% and above in teacher evaluation survey.
  - Satisfactory reports of Higher Education Commission on Quality Parameters of Academic Programs of M. Phil and PhD.
  - Implementation of results of Surveys reports after approval from the Vice Chancellor, Secretariat.
  - Provision of required resources to the faculty and students in result of Remedial Action of Implementation Plans of Assessment Programs.
  - Development / revision of course codes and courses of programs offered in the university and its approval from the Academic Council.
  - Sensitization of affiliated Colleges /Institutes for implementation of Quality Criteria at their setup.
- QEC KMU conducts the surveys from the students and shares the feedback reports with the competent authority of the University for Improvement in Academic Processes. Details of such surveys are given below.

1. Teachers Evaluation Survey ( Feedback on Teachers courses delivery)
2. Students Course Evaluation Questionnaire (Feedback to revise the courses)
3. Research Students Progress Review Form (Feedback on Research Progress )
4. Graduating Students Survey (Feedback from the students at the time of Graduation)
5. Alumni Survey (Feedback after their Graduation to evaluate their Knowledge and Skills relevancy to their

### A). STANDARD OPERATING PROCEDURE (SOP) FOR ANTI PLAGIARISM AT KMU

1. The Administrator will apprise the students/faculty members about the HEC Plagiarism Policy and Turnitin service before implementing it.
2. The Administrator shall create accounts of all faculty members of KMU & its constituent Institution. The accounts of the faculty members of the KMU affiliated institutions shall only be created on approval of the Vice Chancellor.
3. The Administrator shall maintain the privacy and will not disclose any report to anyone except the concerned person and to the concerned authorities, if required.
4. If the Instructor/Scholar is involved in screening of papers and of theses of other authors then the Administrator shall report to the University authorities with evidence.

5. The instructor/supervisor shall be responsible for analysis of the article/paper/thesis of their students studying at KMU on the Turnitin software. Whereas, the administrator shall only be responsible for validation of the similarity index reported by the instructor/supervisor.
6. In case of any conflict the decision of the Plagiarism Standing Committee according to the Plagiarism Policy of HEC will be final.

**B). Instructors**

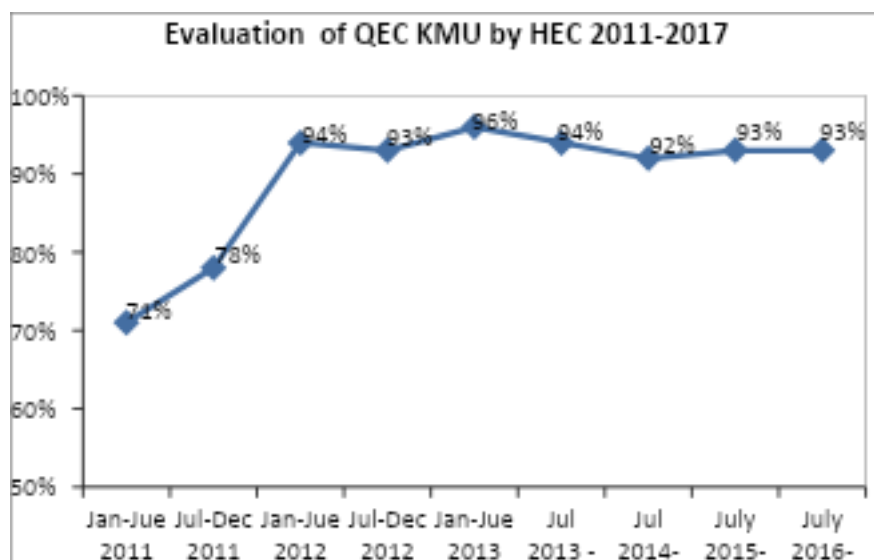
1. Instructors are required to create classes and enrol students in these classes.
2. Students/Scholars should be informed that their work will be checked through anti-plagiarism service, therefore, they must follow proper documenting style in writing report/paper/thesis.
3. References/bibliography and table of contents must be removed from the document which is submitted. If these are included then the similarity index of the document will be increased.
4. Instructors may allow students to view their reports.
5. The instructor will maintain privacy and will not disclose any report to anyone except the concerned person and to the concerned authorities, if required.
6. If a Scholar/Student is involved in checking the papers and theses of any other person, then the Instructor shall report to University authorities about that with valid proof.
7. Originality/Similarity reports generated by the Turnitin provide clues in the form of text matches. Proverbs, Universal Truths, phrases etc.
8. If the report has a similarity index  $\leq 19\%$ , then benefit of doubt may be given to the author.
9. If similarities of a report are from the author's own (previous) work then these may be ignored only if the material has been cited by the author.
10. The instructor/supervisor shall analyze the article/paper/thesis of their students studying at KMU on the Turnitin software for similarity index within HEC limits. They shall also be responsible to place it before QEC for its validation by the Turnitin administrator.
11. As documents which are checked through this service are not yet published and no benefit is acquired, therefore, no punishment or penalty is recommended. It is advised that similarities at greater level may be taken care of in the light of the HEC plagiarism policy

**C). INTERPRETING ORIGINALITY REPORT**

1. Similarity index is based on percentage of matched text out of total number of words in the document.
2. Instructor/Faculty member has to verify each and every similarity index for potential clue of plagiarism.
3. If similarities in the document are significant then scholars/students may be guided accordingly.
4. The similarities in the document may contain matches with the author's previous work; it may be ignored if it is the same work.
5. Bibliography and quoted material may be excluded after verifying. It is important to note that too much quoted material is not desired as per policy.
6. Common phrases and proper nouns also appear as similarities in the report, therefore every instructor/faculty member should ignore matches returned from them.
7. Originality report will show similarities from three major sources: internet, periodicals and student repository. Similarities returned from student repositories may be ignored if it is the author's own work. Similarities from Student repository helps in detecting collusion in the documents.
8. The graphs, tables, formulae and other pictorial material is not matched through the service therefore, it will only offer similarities with only text
9. The instructor/faculty member supervising students/scholars can give a verdict of plagiarism after interpreting the report. The report will be used as evidence of the report

- D). **HEC ANTI PLAGIARISM POLICY (Available on HEC and KMU Websites):** The policy has been adopted at KMU.

**Progress of QEC:**



QEC Criteria	Ranking	Score Range
Category		
W		80% -100%
X		60% - 79%
Y		40% - 59%
Z		Up to 40%

**KHYBER MEDICAL UNIVERSITY**  
**INSTITUTE OF BASIC MEDICAL SCIENCES**



**Ground Floor, Academic Block,**

**Phase-V, Hayatabad Peshawar,  
Khyber Pakhtunkhwa, Pakistan  
Contact: 091-9217838, 091-5892873**

## INTRODUCTION

The institute of Basic Medical Sciences is a constituent part of KMU that specializes in cutting edge basic sciences and translational research. In addition to fixing focus on faculty development, research and technology and bringing it at par with international standards, the areas of interest /concern of IBMS would remain the following:-

1. To focus on further development of faculty members of all medical institutes in their respective capacities by offering M.Phil/ PhD Programs.
2. Provision and expansion of the research activities in organized form.
3. Institutionalizing research in all affiliated medical and health institutions.
4. Provision of quality diagnostic services at competitive rates to the community.

## MESSAGE OF THE DEAN BASIC MEDICAL SCIENCES

Our pursuit is to educate excellent Medical Professionals with noble medical ethics, excellent medical skills, profound humanistic approach and productivity with good research skills in the field of health sciences. Expertly arranged Clinical placements within the campus at our university, community based health care settings across Khyber Pakhtunkhwa to enable students to prepare for playing good roles in health care.

Medical education has transformed recently at global as well as national level. KMU is one of the pioneer intuitions in Pakistan engaged in Medical education for the last 18 years. We are following an indigenously developed integrated system based modular curriculum in line with the modern concepts of medical education as well as fulfilling needs of our society and community. As you explore this website you will find various accomplishments and the historical milestones the university has achieved in the last 18 years. We have also led and supported multiple projects for sustainable capacity building across Pakistan and also launched an offshore campus of Khyber Medical University in Afghanistan shortly.

The faculty is highly trained and motivated in integrated curriculum delivery, both at basic as well as in clinical subjects in the respective years of studies in MBBS program and conversion of BDS course to Modular System is also in pipeline. We practice spiral based hierarchy in curricular delivery whereby there is horizontal as well as vertical integration of courses and subjects promoting learning with clinical context, while we are committed to make learning mutually conducive to both the students and faculty. We are equally committed to utmost respect of our patients and provide state of the art Health Care Services at our teaching hospital where students have access to a variety of patients belonging to multiple specialties.

As per our mission statement we would like to educate doctors of the future who are humane, altruistic, scholar, collaborator and empathetic to their patients. The students and faculty are trained to be self-directed life-long learners. Our prime investment is made for focusing on research at all levels of students as well as faculty. We are very proud of the research activities of our students taking place in Khyber Medical University. We have many vibrant societies of students taking part in curricular as well as co-curricular activities such as blood donations society, sports and debating society and proctorial board etc.

KMU is a research focused institution delivered by the belief that academic enquiry and education can enable understanding and positive social changes in the society on behalf of the faculty, staff and management. I welcome you to a family of excellent medical education and state of the art health care services. We would make all efforts to make your stay and learning comfortable at our level best Insha'Allah.



**Prof. Dr. Rubina Nazli**

**Dean Basic Medical Sciences, Khyber Medical University**

## MESSAGE OF THE DIRECTOR

It is my great pleasure to welcome you to the Institute of Basic Medical Sciences (IBMS), Khyber Medical University (KMU)—an institution committed to excellence in education, research, and innovation in the basic medical sciences. Since its establishment in 2011, IBMS has played a pivotal role in advancing fundamental and translational biomedical research while nurturing highly skilled professionals who contribute meaningfully to the health sector.

Over the years, IBMS has developed a strong academic foundation and an environment conducive to scholarly growth. I am proud to share that the institute has produced more than 650 M.Phil and 60 Ph.D. graduates, many of whom are now serving with distinction in academia, research organizations, diagnostic laboratories, and the pharmaceutical and biotechnology industries. Currently, IBMS offers 8 M.Phil and 5 Ph.D. programs, designed to provide rigorous training, foster critical thinking, and encourage innovation in emerging areas of biomedical sciences.

A significant milestone in the evolution of IBMS was achieved in 2021, when the institute underwent a strategic tri-furcation, leading to the establishment of the Institute of Pharmaceutical Sciences (IPS) and the Institute of Pathology and Diagnostic Medicine (IPDM). This restructuring has enabled a more focused and specialized approach to education and research while allowing IBMS to further strengthen its core mandate in basic medical sciences.

Our mission at IBMS is to expand high-quality research activities, enhance diagnostic and laboratory services, and strengthen the vital link between basic science and clinical practice. We are dedicated to addressing local and regional health challenges through innovative, evidence-based research, while ensuring that our academic programs remain aligned with international standards.

At IBMS, students benefit from experienced faculty, well-equipped laboratories, and a research-driven learning environment that promotes intellectual curiosity and lifelong learning. We aim to equip our graduates with the knowledge, skills, and ethical foundation required to excel in diverse professional pathways and to make meaningful contributions to the advancement of human health.

As you explore this prospectus, I invite you to consider IBMS as a place where your academic ambitions can be transformed into impactful careers. We look forward to welcoming you to a vibrant scholarly community and supporting you on your journey toward excellence in basic medical sciences.



**Prof. Dr. Inayat Shah**

**Director Institute of Basic Medical Sciences**



## **Vision**

IBMS will be the major hub of international quality academic and research activities in the field of basic medical sciences. The goal is to extend the frontiers of knowledge through relevant interdisciplinary Research; fostering an intellectual culture that bridges basic science and clinical practice; contributing to the enhancement of human health.

## **Mission**

To develop the academic faculty, flourish research and technology to international standards to benefit medical institutions and industry which ultimately will help in the economic growth of the nation.

## **Objectives**

1. To expedite the academic growth and development in undergraduate medical education by providing properly qualified and trained basic sciences teachers.
2. To institutionalize research by producing more PhDs, particularly in the emerging fields of basic medical sciences like immunology and molecular biology.
3. To develop linkages with leading institutions nationally and internationally for collaboration and exposure of local research scholars.
4. To keep academics updated via short refresher to disseminate latest academic and research advancement in the field of basic medical sciences.
5. To focus on regional medical issues and improve health standards of the local community via research.
6. To produce highly trained and qualified manpower to improve the quality of services delivered to the community.
7. To provide efficient, hi-tech and high quality diagnostic services at competitive rates directly or through a network of referral / collection facilities.

## **Core values**

- Perform integrated interdisciplinary teaching and research with the highest level of ethics and professionalism, to meet the needs of stakeholders; and be responsive to changing global trends.
- Promote and defend the freedom of thought, academic inquiry, expression and association.
- Demonstrate sensitivity to student welfare and staff needs, and to practice environmental stewardship to the highest standards.

## **Core Activities**

- The institute instructs in the Bio-medical sciences related to Basic Medical Sciences.
- The institute trains postgraduate scholars in basic medical sciences in the degree programs leading to Masters of Philosophy (MPhil) in basic medical sciences, and Doctor of Philosophy (PhD) in basic medical sciences.
- In addition, the institute also invests in preparing active future basic medical science researchers and teachers.
- It engages its students in activities ranging from optimization of laboratory protocols and animal handling to poster & oral presentations and critical reviews.
- The institute arranges research days and conferences throughout the year, in which the new inductees are given an opportunity to develop an orientation regarding the core activities
- And structure of the department while the current students present their posters and critical reviews and receive feedback from the faculty members of different departments.
- Furthermore, students assessed for their understanding and application of subject specific knowledge through both formative and summative assessments.

## **Career Opportunities**

1. The IBMS provides a promising career opportunity to its M.Phil / PhDs in the field of Basic Medical Sciences (BMS).

2. Most of such skilled professionals will join teaching and research careers as faculty in Basic Medical Sciences Departments of national/international institutions.
3. Excellent opportunities for laboratory based careers in medical marketing and research for graduates who wish to join the pharmaceutical industry.
4. Equally excellent opportunities for those joining industry, employed in R & D, Sales & marketing areas.
5. Better career in medical and dental institutions



**Faculty:**

S/No	Name	Qualification	Designation
<b>Department of Anatomy</b>			
1.	Prof. Dr. Zilli Huma	MBBS, FCPS, PhD, CHPE, Postdoc	Director Academics/ Professor/ HOD
2.	Prof. Dr. Najma Baseer	MBBS, MHPE, PhD, Postdoc	Professor
3.	Dr. Najeebullah	M.Phil., PhD, Postdoc, CHPE	Associate Professor
4.	Dr. Habiba Rashid	M.Phil., PhD, CHPE	Assistant Professor
5.	Dr. Rakhshinda Iram	MBBS, M.Phil.	Assistant Professor
6.	Dr Shabnam Wazir	MBBS, M.Phil.	Lecturer
<b>Department of Biochemistry</b>			
7.	Dr. Rubina Nazli	MBBS, CHPE, PhD	Dean BMS/ Professor
8	Dr. Muhammad Shehzad	BDS, PHD, Postdoc, MHPE	Associate Professor
9	Dr Ehtesham	MBBS, MSc, CHPE, PhD	Assistant Professor
10	Dr. Warda Afridi	BDS, M.Phil.	Lecturer
11	Nida khan	BS, M.Phil.	Lecturer
<b>Department of Dental Materials</b>			
12	Dr Nawshad Muhammad	MSc, M.Phil., PhD, Postdoc	Professor/ HOD
13	Dr. Saad Liaqat	BDS, CHPE, PhD	Professor
14.	Dr. Adnan	BDS, PHD	Assistant Professor
15.	Dr Muhammad Amer Khan	BDS, M.Phil., CHPE	Lecturer
16.	Dr Humaira Jabeen	BDS, M.Phil., CHPE	Lecturer
<b>Department of Forensic Medicine and Toxicology</b>			
17.	Dr. Hafsa Muhammad	MSc, M.Phil., PhD, Postdoc, CHPE	Assistant Professor/ HOD
18.	Dr. Muhammad Wasif	MBBS, M.Phil., CHPE	Assistant Professor
19.	Muhammad Ishaq	MBBS, DMJ, CHPE	Lecturer
<b>Department of Human Nutrition</b>			

20.	Dr. Rubina Nazli	MBBS, CHPE, PhD	Professor
21.	Dr Sadia Fatima	MBBS, CHPE, PhD	Professor
22.	Dr Khalid Iqbal	PhD, Postdoc	Associate Professor
23.	Dr. Bibi Hajira	PhD, CHPE, CCTM	Assistant Professor
24.	Dr. Afshan Ghafoor	M.Phil.	Assistant Professor
25.	Dr. Huma Naqeeb	PhD, CHPE	Lecturer
<b>Department of Molecular Biology and Genetics</b>			
26.	Dr. Musharraf Jelani	PhD, Postdoc	Professor
27.	Dr. Muhammad Tahir Sarwar	PhD	Professor
28.	Dr. Roshan Ali	PhD	Associate Professor
29.	Dr Irshad Ahmad	PhD	Associate Professor
30.	Dr. Ishaq Khan	PhD, Postdoc	Assistant Professor
31.	Dr. Wafa Naeem	PhD	Lecturer
32.	Ms. Kiran Konain	PhD	Lecturer
<b>Department of Oral Biology</b>			
33	Dr. Umar Nasir	BDS, FCPS, DHPE	Professor
34	Dr. Saeed Ur Rahman	PhD, Postdoc	Associate Professor
35.	Dr. Bushra	BDS, M.Phil.	Assistant Professor
36.	Dr. Wahaj Anees	BDS, M.FOdont (UK), CHPE	Assistant Professor
37.	Dr. Samar Kamran	BDS, M.Phil.	Lecturer
38.	Dr. Aleena farman khan	BDS	Demonstrator
39.	Dr. Sara Israr	BDS	Demonstrator
40.	Dr. Intikhab Alam	BDS	Demonstrator
<b>Department of Physiology</b>			
41.	Dr. Inayat Shah	MBBS, PhD	Director IBMS/ Professor
42.	Dr. Mohsin Shah	PhD, Postdoc	Professor

43.	Dr. Syed Hamid Habib	MBBS, PhD	Professor
44.	Dr. Omer Malik	MBBS, PhD	Professor

### Teaching and Learning Methods

Students will experience a wide variety of teaching and learning methods from expert staff including tutorials, lectures, seminars, workshops, small group discussions, and problem-based learning, and laboratory sessions. As such the students will develop a wide range of skills useful in a basic and applied environment. These skills will aid in teamwork, scientific exploration, and problem solving and identifying relevant laboratory protocols.

### Assessment Methods

Students will be assessed both formatively and summatively. Throughout the year formative assessment in the form of class tests, presentations and assignments along with the feedback will be carried out. Summative assessment will include the end of the course terminal exam featuring multiple-choice questions. The practical aspects will be assessed using viva and Objective structured Practical examination (OSPE).

- |                         |                                       |
|-------------------------|---------------------------------------|
| a. Class quiz           | to assess continuous learning process |
| b. Terminal Examination | to assess learning out comes          |
| c. Presentations        | to assess communication skills        |
| d. Assignments          | to assess writing skills              |

#### Weighting of assessments

**Total marks=100**

Midterm exam	25%
Terminal examination	40%
Oral/practical examination	10%
Semester work (presentations)	05%
Other types of assessment (assignments/reviews/posters)	05+15%
Total	100%

### Compulsory Courses

The M.Phil basic medical sciences scholars are required to undertake a total of 4 Compulsory courses consisting of 8 credit hours in the first semester. Whereas the PhD Basic sciences have 5 compulsory courses of 9 credits in the first semester. These courses are compulsory for all the students.

### Specialty Courses

The in-depth study of the different basic medical sciences specialties (**Anatomy, Physiology, Biochemistry, Dental Materials, Forensic Medicine and Toxicology, Human Nutrition, Oral Biology, and Molecular Biology and Genetics**) will be learned to a level to teach undergraduate and postgraduate students and professions allied to medicine. A total of 8 credits for M.Phil and 8 for PhD are offered in each specialty. This part of the course is largely self-directed, with regular tutorials and laboratory sessions. The related specialty courses of each specialty are mentioned in their corresponding sections.

### Optional Courses

An elective course is one chosen by a student from a number of optional subjects or courses in a curriculum, as opposed to a compulsory and specialty courses, which the student must take. Multiple optional courses will be available for students to select from. All the students will be required to select and undertake a maximum of two optional courses (4 credit hours in total). This will be done after the recommendation and approval from their respective supervisors/ departments. A faculty meeting prior to every semester will decide on the optional courses offered for that semester.

## Registration in the University

- i. A scholar for MPhil/PhD degree program shall be registered in the teaching department / institution of the University.
- ii. Registrar of the university shall maintain a register of MPhil/PhD research scholars and assign a registration number to each scholar at the time of provisional admission.
- iii. A "notification of registration" for each candidate approved /allowed for admission to MPhil/PhD program shall be issued by the University.
- iv. Registration may be renewed on payment of the prescribed fee according to the rules and regulations of the university
- v. A person registered for the PhD degree program shall be called **MPhil/PhD research scholar**.
- vi. Each student so selected shall be required to register and pay the dues according to university admission policy, failing which the admission of the selected candidate shall be deemed as cancelled. The tuition fee and other dues shall be determined by the university from time to time.

## Attendance

The policy for minimum attendance (>75 %) in a course is mandatory to complete the requirements of a course. The instructor shall report a student's absences and the student shall be placed on attendance probation by his/her dean/HOD and it will be notified by the department. A student shall be dropped from the University for violating the terms of such probation.

## Cancellation of Enrolment

If a student fails to attend any lecture during the first four weeks after the commencement of the semester as per announced schedule, his/her admission shall stand cancelled automatically without any notification. If a scholar does not fulfil the requirements as prescribed, his registration shall stand cancelled according to University Policy.

## Fee Structure for M.Phil and Ph.D Basic Sciences Programs:

S#	Title	Semester					
		M.Phil/PhD (4 Semester)				PhD(6 Semester)	
		1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>
1	Admission Fee	3000	0	0	0	0	0
2	Semester Tuition Fee	100,000	100,000	100,000	100,000	100,000	100,000
	<b>Grand Total</b>	<b>103,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>

1. Thesis charges M.Phil Rs.50000/- & PhD Rs. 140,000/-at the time of submission of thesis (if any).
2. Degree Fee shall be deposit at time of getting Degree of M.Phil/PhD Rs. 5100/- one time with verification
3. Transcript Fee shall be deposit at time of getting Degree of M.Phil/PhD Rs. 1100/- one time
4. Degree/transcript verification fee shall be deposit if want to verify degree or transcript Rs. 1100/- one time
5. They shall deposit 50% of semester tuition fee for subsequent extra semester fee in case of students fail to submit thesis in stipulated time period after i.e. (2 years in M.Phil & 3 years in PhD)
6. They shall deposit 30% of semester tuition fee for one time as fine with 50% regular extra semester fee in case of students fail to submit thesis in stipulated time period i.e. after (3 years in M.Phil & 5 years in PhD)
7. Late fee fine policy imposed on deposition in after due date as Rs. 7000/- in case of late submission.
8. Self sponsored foreign students shall pay US\$\_\_\_\_\_-/- in addition to normal fees each year.
9. University Employees will be given 50% concession in Admission and Tuition fees only.

10. University employee's children will be given 75% concession in Admission and Tuition fees only.

## Facilities

IBMS is providing excellent educational resources, services and facilities to fulfill the teaching, learning and research needs of its faculty members, students and staff. The institute is run by well trained, internationally qualified, professional PhD faculty members.

## Infrastructure:

Purpose built and renovated academic block in main campus of the university with well furnished departments, spacious, air-conditioned class rooms, demonstration rooms and laboratories equipped with multimedia projectors and audio-video equipment. The university has a well equipped and furnished multipurpose hall with multi demonstration rooms, where all the national and international conferences, seminars and workshops take place. Administration, faculty, students and guests have separate cars parking with shades which are vigilantly watched by the veteran security personnel.

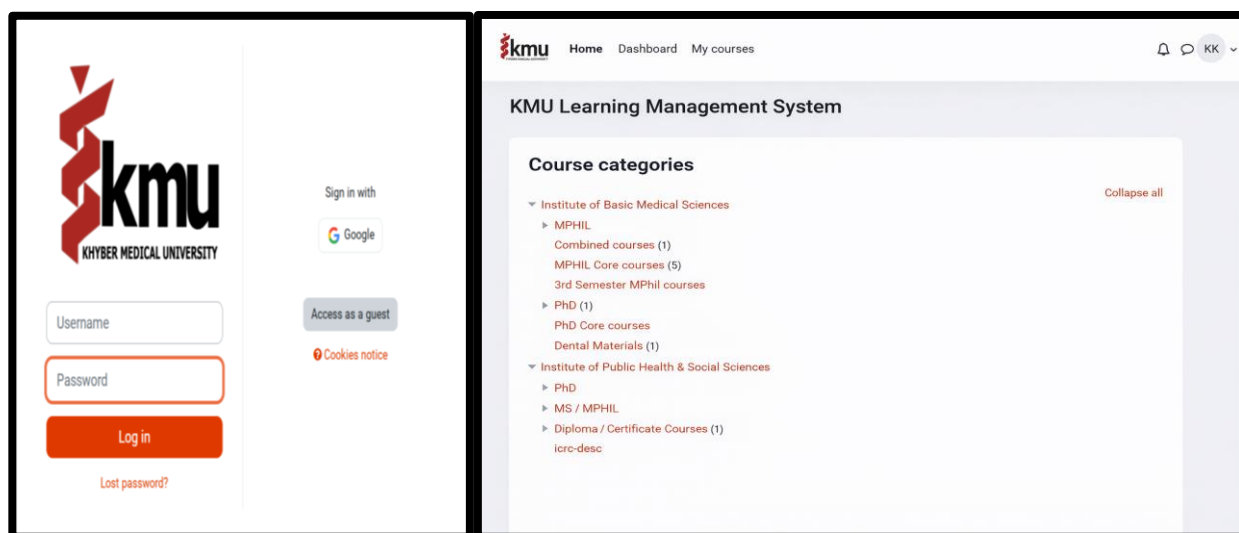
## Accommodation:

A new hostel is being built which is almost complete and will be functional soon on campus. Resident students will be provided with furnished accommodation comprising cubicles and dorms. The hostel will be provided with Wi-Fi, mess and common room.

## Wi-Fi and IT support

Wi-Fi support through HEC smart university to the university has 80MPS broadband connection to all areas of the campus. KMU offers both faculty and students official email addresses, so as to make it easy to communicate with colleagues nationally and internationally with increased authenticity. In the IT lab students can work on their research and there is also a Prime Minister Laptop scheme for students to keep abreast of the digital age.

KMU has created a perfect learning environment via virtual **MOODLE** online software (<https://lms.kmu.edu.pk/>) through which the facilitators connect with the scholars. All the lectures and presentations are uploaded on the system which is easily accessible to students through their specific log-in area. Students can submit their assignments on time from anywhere and can access study reference material using this facility.



## Library

University campus comprises a well maintained and spacious library equipped with comfortable chairs and environment. Latest edition books in basic sciences both local and international, to facilitate both students and faculty in their course works are available. Local and international journals are made available in the library. The library has a computer lab, with access to university broadband which instantly helps the students browse for contents online.

The university has provided free access to the **Medline database** to facilitate scholars in research. Medline contains journal citations, full text and abstracts for biomedical literature from around the world.

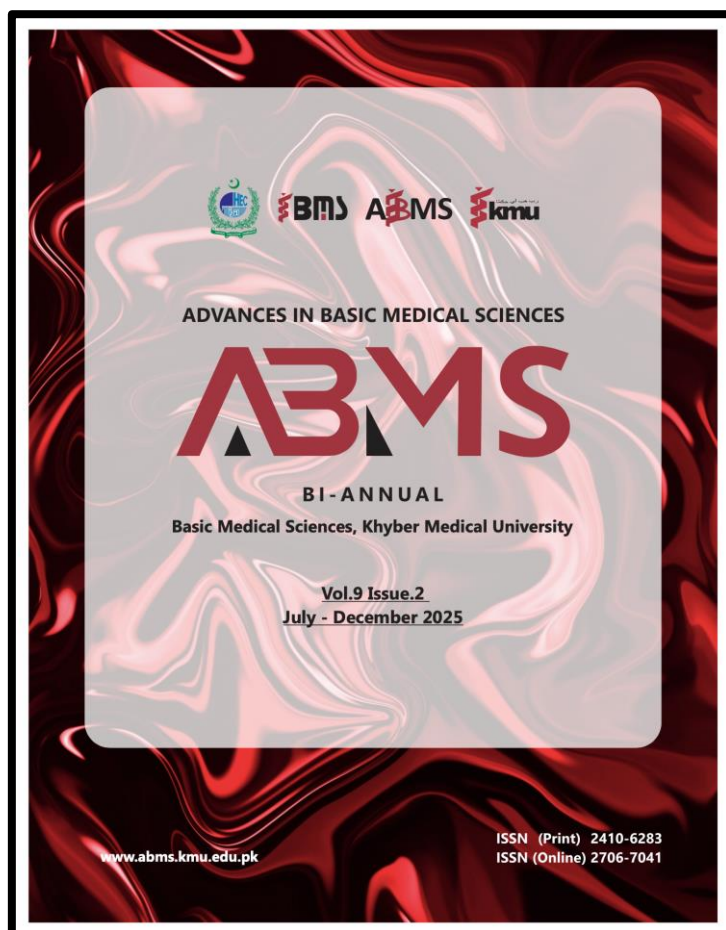
## Research Furth

Khyber medical university has signed MOUs with many local and international universities to collaborate in the field of biological sciences that includes University of Glasgow, University of Dundee, and University of Geneva etc.

PhD scholars of KМУ, IBMS with support from HEC, are also sent on 6 months programs to many international Universities in USA, Europe, UK, etc where they learn and apply different new clinical and diagnostic laboratory techniques.

## Journal

Advances in Basic Medical Sciences (ABMS), is published by the Institute of Basic Medical Sciences. It is a bi-yearly journal with focus on Basic Medical Sciences and is recognized by Pakistan Medical and Dental Council (PMDC). ABMS is managed by Dr Najma Baseer, Professor IBMS Khyber Medical University Peshawar (Managing editor) and Dr. Syed Hamid Habib (Editor in Chief).





## Sports Facilities

Besides academics, sports are one of the most important co-curricular activities. Sports attribute to the academic performance and character building of the students. It is said, “A healthy body is a promise of a healthy mind”, and combination of both can do wonders for students. Thus the institute has provided sports facilities to the indoor as well as outdoor games. Annual Sports Gala is also arranged annually by the Directorate of Sports for active participation of students from all the affiliated institutes led by Dr Inayat, Assistant Professor IBMS (Director Sports).



## Laboratories

Each department in IBMS has a well equipped laboratory with cutting edge instruments. Students with the help of capable technicians and faculty members perform all their research work in these laboratories. Freezers from -80,-40,-20 are available for long term storage of research samples as well as incubators shaking, refrigerated, CO2 etc. The university also has approved a reference lab (PHRL) which is deemed to be the first of its kind in the whole KP with the help of WHO, NIH and KP health department.



## Metabolic Room

IBMS has established a functional metabolic/clinical trial room (CTR) for nutritional studies which is the first trial room in KP, Pakistan. The CTR is established and maintained by Dr Sadia Fatima, Assistant Professor, IBMS. The purpose is to design a clinical environment for improving the quality and efficiency of the clinical trials and to introduce tools necessary for the evidence based and innovative studies. PhD and M Phil Scholars and their facilitators perform the clinical trials here in the presence of the trained staff. Currently 9 trials are in progress in CTR. The participants include children and pregnant women. Currently trials on novel devices recently introduced by the John Hopkins Public Health Institute, US for quantitative assessment of papillary threshold as alternative methods for Vitamin A were carried out in the CTR.



## Molecular biology Lab

Molecular biology and genetics is a newly introduced programme in IBMS, and currently holds new and up to date instruments. DNA quantifier, real time and conventional PCR and gel documentation system for research with a goal to start next generation sequencing soon



### **Physiology Lab**

The physiology lab is one of the well-equipped labs at IBMS. It contains the latest instruments that have made the job of students easy. ELISA, Western blot, Flow cytometry are common processes involved during student's projects. The lab also has ECG and ETT machines, data acquisition system for nerve conduction studies and an ultra-sonogram machine.



### **Biochemistry lab**

The biochemistry lab is run under the guidance of very skilled and trained faculty and staff members. The newly installed High pressure Liquid Chromatography (HPLC) and COBAS C111 biochemistry analyzer has made it very easy for all the researchers/scholars to perform the entire biochemistry test.



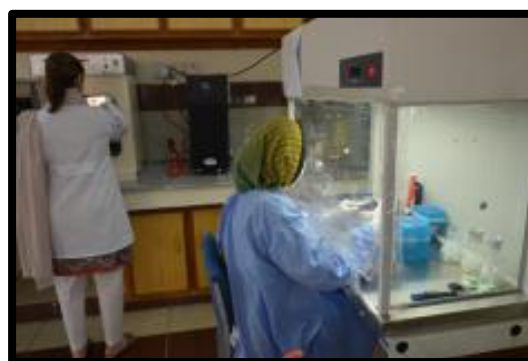
### **Anatomy lab**

The anatomy lab is in its infancy but we now have avibrotome as well as stereotaxic frame and stereomicroscope for microscopic studies. In addition we have a teaching Skills lab where students are taught comprehensive details of the human gross and microscopic anatomy.



### **Cell Culture Lab**

This laboratory is the first in Khyber Pakhtunkhwa to have successfully developed cell lines of brain tumor stem cells, breast cancer, and oral carcinoma derived from patients of KPK, and to establish advanced immunofluorescence techniques, with ongoing expansion into other areas of stem cell research. In addition to locally developed cell lines, the laboratory is also equipped with commercially available cell lines, including bone- and skin-derived cells from mouse models as well as human HepG2 and U87 cell lines, which are actively utilized for research projects and postgraduate training.



### **Dental Materials Lab**

The Dental Materials Laboratory is steadily developing and is equipped to support teaching and research activities. It provides hands-on training in the manipulation, characterization, and evaluation of dental materials, enabling students to gain practical and research-oriented understanding of their clinical applications.



### **Oral Biology Lab**

The Oral Biology Laboratory is actively developing and is equipped to support advanced teaching and research activities. The laboratory houses an industry-grade electrospinning machine, facilitating the fabrication of nanofibrous scaffolds and biomaterials for oral and craniofacial research, while providing hands-on training to postgraduate students in modern experimental techniques.



### **Histopathology Lab**

Histopathology is an important field when it comes to diagnosis. The lab at IBMS consists of an automated tissue processor along with all supporting instruments like cryostat, embedding station, microtome that helps the student to perform all histopathological tests individually under one roof.



### **Animal House**

IBMS also has a centralized animal house with air-conditioned facility which is located in a separate building with separate rooms for keeping the animals and for performing experiments. The facility houses a number of different strains of mice and rats as well as rabbits as per student research projects. Students can access this facility for testing and running animal trials and for carrying out metabolic studies for their research projects. We have now added a surgical room with live animal experiment equipment like anesthesia machine and a fluovac system.





## Khyber Pakhtunkhwa (KP) Public Health Reference Laboratory (PHRL)



KP-PHRL is a joint venture of the Khyber Medical University, Department of Health Khyber Pakhtunkhwa and the National Institute of Health (NIH), Islamabad. The objectives of this laboratory include diagnosis of notifiable disease, tracking of outbreaks, and ensuring safe laboratory practices in Khyber Pakhtunkhwa. KP-PHRL will function round the clock providing surveillance testing and will be under heavy workload during outbreaks. KP-PHRL is located in the academic block of IBMS. The laboratories included in KP-PHRL are, Haematology laboratory, Routine chemistry laboratory, Microbiology laboratory, Special Pathogens (BSL-III) laboratory, Molecular biology laboratory, Non-communicable disease and cytogenetic laboratory, Water, food and environmental testing laboratory, viral serology laboratory

Four PhD faculty members of IBMS and seven technical staff are looking after this laboratory.

It is aimed that with routine functioning of the laboratory, not only KMU will provide essential health services to the community, but also will provide students access to precious research samples for trans-disciplinary research. In its first trimester, KP-PHRL will provide diagnosis and monitoring of population from Dengue affected areas.

## Student Resource Centre

The Student Resource Centre serves the needs of the students by fostering a community of life-long learning and collaboration across programs and curricula and further provides an opportunity for students to coordinate curricular and co-curricular activities. The very first duty of the youth today is to build our country and carry it responsibly on its shoulders and so members of the SRC work hard against the image that a student is only made for the books. The members of the SRC are mainly student volunteers that are graduate students from IBMS, MPhil and PhD Program.



### Vision

The vision of the KMU mentoring program is to help students become effective members of the medical science community and help them acquire skills not taught in the prescribed curriculum.

### Mission

To enable students to work together as part of a team by providing opportunities **to arrange various Curricular And Extra Curricular Activities** in areas of their interest so that they may develop as **Morally Upright and Disciplined individuals**, that makes **Upstanding citizens of Pakistan and effective contributors to the university**.

### Program Slogan

Building today's talent into tomorrow's leaders

### Objectives

- To provide the students with opportunities in both curricular and co-curricular areas which will help them in their personal growth and enhance their leadership skills

- It serves as the platform for coordinating the contact between the university and its alumni through maintaining data based on their whereabouts and periodically arranging their meetings and re-unions.
- To provide coordination for arranging seminars, guest speaker sessions, cultural and entertainment events.
- To act as the middle point for interaction of our university with the corporate sector and business world to coordinate various placement and internship activities for our students.

#### **Components of the SRC**

1. Advice/Counselling centre
2. Clubs and Societies
3. Alumni
4. Mentoring
5. Student resources
6. Seminars/Conferences etc

## ACADEMIC PROGRAMS

### PhD (Doctor of Philosophy)

Anatomy	Biochemistry	Physiology	Dental Materials	Molecular biology & Genetics
---------	--------------	------------	------------------	------------------------------

#### Mission

The goal of PhD Anatomy/ Biochemistry/ Dental Materials/ Molecular Biology and Genetics/ Physiology program is to develop doctoral-level subject educators capable of teaching basic medical discipline to medical and allied health professional students and who are capable of performing high quality biomedical research for the benefit of the nation.

#### Overview

This is a three year course that shall include both *taught courses* as well as *research rotations*.



Subject GRE

In the **first semester** students shall complete the core courses required by the Anatomy/ Biochemistry/ Dental Materials/ Molecular Biology and Genetics/ Physiology program as well as completing research rotations whereby selecting a research supervisor and mentor. They shall complete a qualifying exam at the end.

In the **second semester** courses in Anatomy/ Biochemistry/ Dental Materials/ Molecular Biology and Genetics/ Physiology as well as assistance in teaching basic sciences to medical and allied health students.

In the **third to sixth semester** they shall complete doctoral research projects, dissertation writing and defending their thesis.

The students shall have a rotation in at least two research labs together with being involved in teaching students as teaching assistants to gain research and teaching experience.

#### Outcomes

The Graduate of PhD in Anatomy/ Biochemistry/ Dental Materials/ Molecular Biology and Genetics/ Physiology will have the attributes of a Subject specialist, Scientific researcher, Educator, Effective communicator and Collaborator achieved by developing trained personnel,

- In research skills and methodology
- To conduct quality and credible research
- Educators capable of teaching medical anatomical discipline

#### Objectives

The Graduate of PhD (Anatomy/ Biochemistry/ Dental Materials/ Molecular Biology and Genetics/ Physiology) shall achieve,

#### Cognitive Domain

- knowledge at the frontier of the field of Anatomy/ Biochemistry/ Dental Materials/ Molecular Biology and Genetics/ Physiology including knowledge that constitute an original contribution
- Substantial knowledge of research principles and methods applicable to the field
- An understanding of theoretical knowledge and to reflect critically on the theory and practice of Anatomy/ Biochemistry/ Dental Materials/ Molecular Biology and Genetics/ Physiology

- Use of intellectual independence to think critically, evaluate existing ideas, undertake systematic investigation and reflect on theory and practice of Anatomy/ Biochemistry/ Dental Materials/ Molecular Biology and Genetics/ Physiology to generate original knowledge

### Psychomotor Domain

- Expert technical and creative skills applicable to the field of Anatomy/ Biochemistry/ Dental Materials/ Molecular Biology and Genetics/ Physiology
- Expert skills to search, design, analyze and communicate research that makes a significant and original contribution to knowledge and/or professional practice of Anatomy/ Biochemistry/ Dental Materials/ Molecular Biology and Genetics/ Physiology
- Communication skills to explain and critique theoretical propositions, methodologies and conclusions to communicate results to peer and the community
- Communication skills to present a complex investigation of original research for external examination against international standards

### Affective Domain

- Intellectual independence
- Initiative and creativity in new situations and/or for further Learning
- Full responsibility and accountability for personal outputs
- Plan and execute original research (Project management)
- Life-long learner to generate new knowledge, in the context of professional practice



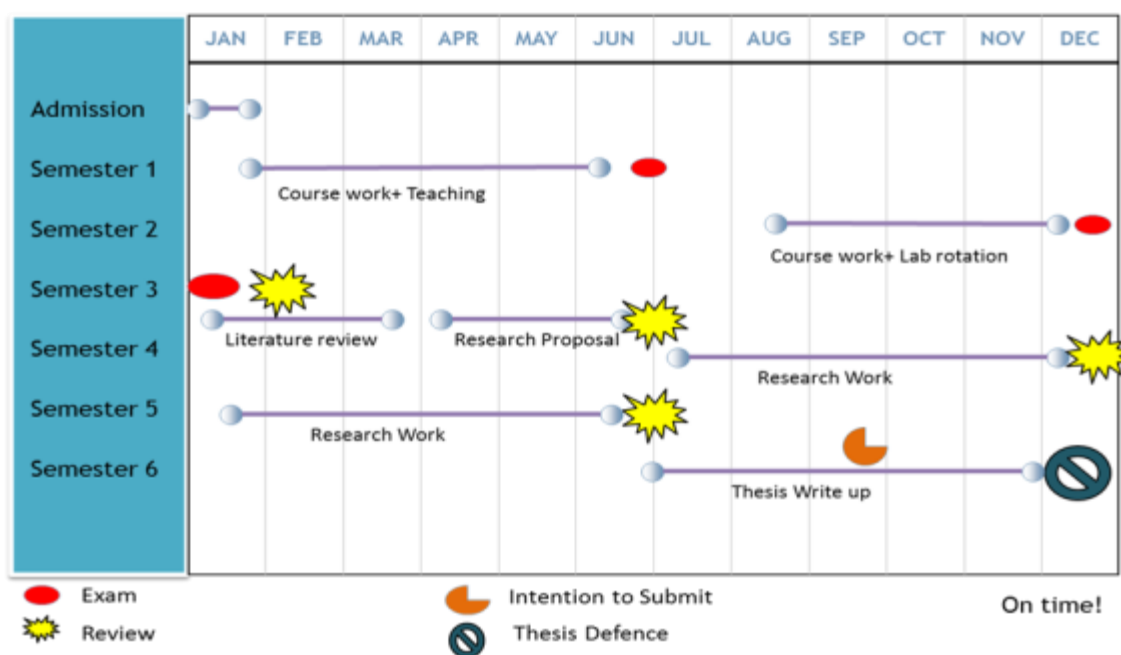
### Class Presentations

### Program Details

<b>COURSE TITLE</b>	PhD
<b>SPECIALITY</b>	(Anatomy/ Biochemistry/ Dental Materials/ Molecular Biology and Genetics/ Physiology)
<b>COURSE DURATION</b>	Minimum 3 years (including course work duration and Research Dissertation) ,Maximum 3-8 years (including course work duration)
<b>TYPE OF STUDY</b>	Full time
<b>STUDY SYSTEM</b>	Semesters system (Minimum of 16 weeks of teaching excluding examinations) <ul style="list-style-type: none"> <li>○ 2 Regular semesters for coursework (1 year)</li> <li>○ 4 semesters for research work</li> </ul>

<b>TOTAL CREDIT HOURS</b>	18 (Credit Hours of Course Work + a PhD dissertation which must be evaluated by at least two PhD experts from technologically /academically advanced foreign countries in addition to local Committee members)
<b>DISTRIBUTION OF COURSES AND CREDIT HOURS</b>	<ul style="list-style-type: none"> <li>• 1<sup>st</sup> semester (09 Credit hours) <ul style="list-style-type: none"> <li>○ 5 Compulsory courses (8 Credit hours)</li> <li>○ Research rotations (minimum 2) (1 credit)</li> </ul> </li> <li>• 2<sup>nd</sup> semester (09 Credit hours) <ul style="list-style-type: none"> <li>○ Specialty Courses (8 Credit Hours)</li> <li>○ Teaching rotation (1 Credit)</li> </ul> </li> <li>• 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup> Semesters (6 credits) Research, Dissertation</li> </ul>
<b>Course Load per Semester for Regular Full-Time Students</b>	09 Credit Hours of Advanced Courses in the specific field and Research Methods
<b>TEACHING INSTITUTION</b>	Institute of Basic Medical Sciences (IBMS)
<b>DEGREE AWARDING INSTITUTION</b>	Khyber Medical University Peshawar
<b>ADMISSION CRITERIA</b>	<b>Anatomy/ Biochemistry/ Dental Materials/ Molecular Biology and Genetics/ Physiology:</b> M.Phil/M.S/FCPS and equivalent degree in relevant field with CGPA 3.0 (out of 4.0 in the Semester System) or First Division (in the Annual System)

## PhD timeline





## PhD Advisory Committee (PAC) Advisors

Students shall be assigned advisors on admission by the specific department. The PhD coordinator shall serve as advisor before selection of subject specific advisors. The advisor as part of the PhD advisory Committee and the student together will develop a flexible comprehensive plan of study that will be implemented in each semester. The advising file will be updated by the PhD advisory committee (PAC).each semester and will include copies of transcripts and GPA earned.

## Program Duration

The research work and award of degree will be supervised by a HEC recognized PhD supervisor and co-supervisor from related areas of expertise. Upon admission to the PhD program a supervisor will be allotted to the enrolled student who will guide the student in the selection of his/her area of research along with the development of research proposal and protocol. The supervisor and co-supervisor will also ensure that the student develops essential skills according to his area of research.

The requirements for a PhD degree shall normally be completed within four years from the date of registration. The maximum time for the completion of a PhD degree shall be six years from the date of registration in the PhD program. Only under exceptional circumstances, to be described in detail by the PhD candidate and supported by the supervisor, the PhD advisory committee may allow extension of up to one year beyond the maximum time limit of six years.

## DISTRIBUTION OF SEATS:

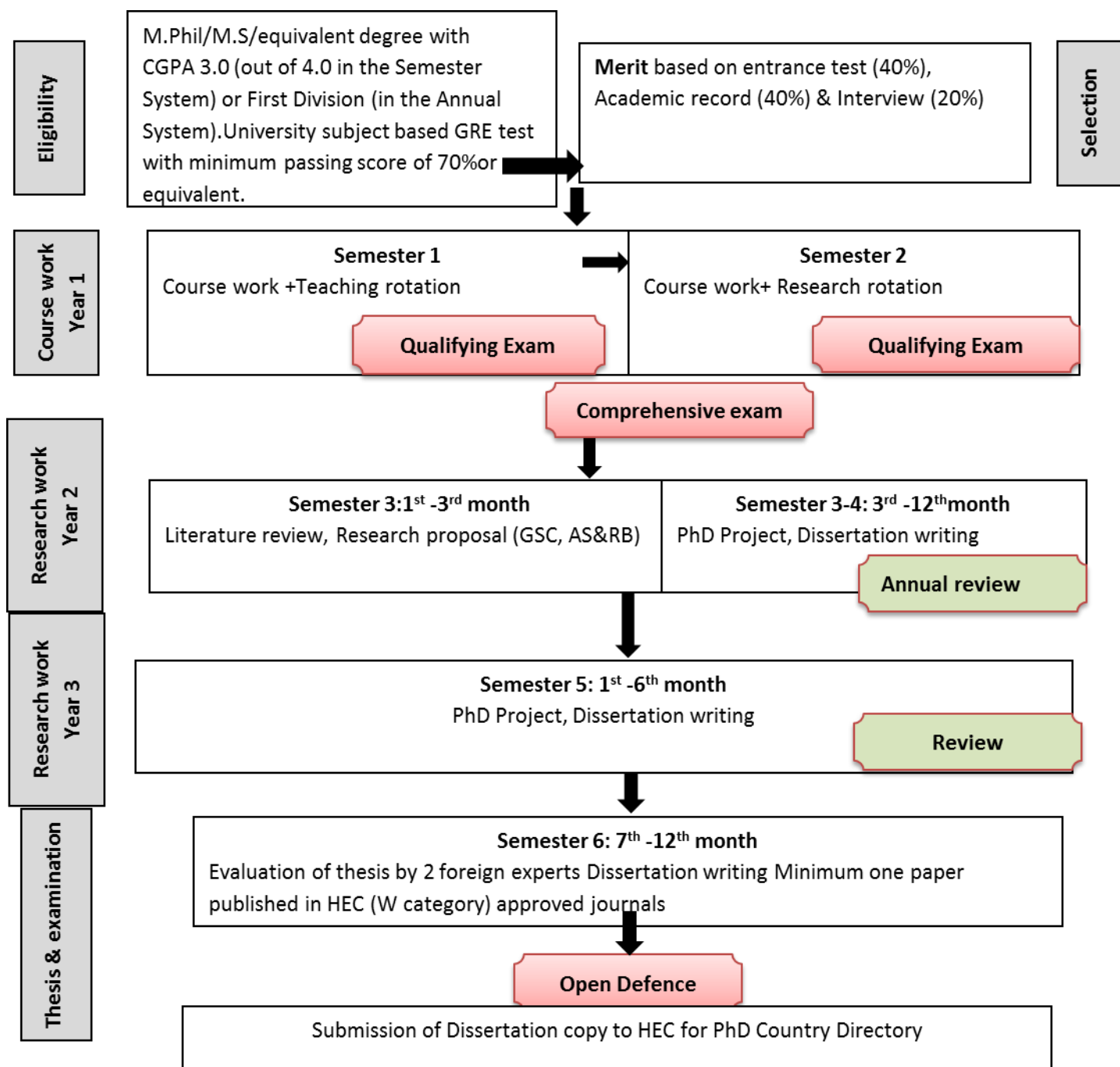
The number of seats in the PhD (Basic Medical Sciences) program will be determined from time to time as per available seats and Supervisors.

## Fee Structure: The fee structure of Ph.D programs are as under:-

Semester Fee	Rs.100,000
KMU Registration Fee (One time)	Rs. 3000
PMDC Registration Fee (One time)	Rs. 6,000
Ph.D Thesis Evaluation Fee (One time)	Rs.140,000

**Note:** Regulatory Body Registration Fee is applicable as per rules/policy of the regulatory body.

## Program structure



## **Review Process**

### **Year 1**

The scholar shall clear End of semester qualifying exams to progress to next semester.

The final Comprehensive exam (maximum 2 attempts) will be conducted by the examination department of KMU at the end of semester 2.

After successfully clearing the comprehensive exam, the student shall proceed to Year 2 of PhD.

### **Year 2**

#### **0-3 Months**

The student should submit a review of the literature for the potential project (1500 Words minimum, 2000 Words maximum) in the form of a scientific report.

The student should submit a PhD Proposal to his/her supervisor for initial review. The supervisor will then assess the project and identify training needs if required.

The student should now accommodate supervisor comments, re-check from supervisor and submit research proposals to the Graduate Study Committee with one subject specialist from within or outside KMU. This should be followed by submission of "PhD Student Review Form" (Annexure 1), literature review and defense of research proposal in the annual review meeting of the Advanced Studies Review Board (ASRB), especially arranged for the PhD students.

#### **3-12 Months**

The student should be working on collecting data, optimize experiments, establish collaborations and develop experimental/research plans for successful completion of PhD projects.

Note: At the start of year 2, the student could potentially start collecting data, optimize experiments, establish collaborations and develop experimental/research plans.

### **Year 3**

The review process of Year 2 and 3 include,

- Presentation to the institutional Graduate Study Committee on six monthly basis organized by the concerned PhD Coordinator followed by submission of "PhD Student review form",
- Scientific report\* and presentation in the PhD annual review committee#.

The annual review process should be completed by students and supervisors by 31st January. Any student starting late will normally be permitted to delay submission of their annual report until 31st March.

Two reviewers (assigned by supervisor) will assess the progress of students at the end of year 2 and 3. The performance of PhD students will then be communicated by the reviewers to the supervisor and director of the institute.

#### **\*Scientific report**

A scientific report preferably in the style of a journal article (6 to 10 pages maximum is recommended) summarizing progress made in the last year. It may therefore contain an abstract, introduction, materials and methods, results and discussion. In addition, there should be a 1500-2000 word section at the end of the report detailing the following year's work (Future plans). To be sent to the supervisor for assessment and comment (half a page maximum) and subsequently submitted to the reviewers.

#### **#Presentation in the PhD review committee**

All PhD students are required to deliver an oral presentation by the end of year in the PhD review committee. This is followed by discussion with the committee members, including a minimum of two subject experts. The committee will then take decisions regarding the registration of students for the next session.

## **Thesis pending period**

Final year interview - Students within a year of the absolute thesis submission deadline will be interviewed specifically on their progress in the ASRB annual review meeting.

## **Qualifying Examinations and Defence**

### **End of Semester Exam**

Upon completion of the core curriculum, the student must prepare for and successfully pass the doctoral qualifying examination at the end of each semester (1 & 2) to test their knowledge of the subject, grasp of relevant literature, and the ability to form research hypotheses and experimental design. It shall be a written and oral exam.

### **Comprehensive Examination**

The qualifying exam is a written examination that will be designed to test the student's fundamental knowledge of human structure and function, critical analysis and thinking, and design of an independent research proposal.

An ad hoc exam committee will be constituted by the Director of the Institute/PhD Co-ordinator and include three members of the graduate faculty, two of which shall be subject specialists. The Program Director shall chair the committee.

The committee shall request the faculty to submit questions on:

- 1) Material covered in any of the course work completed by the student to date,
- 2) Research papers or reviews that will be provided to the student, and/or
- 3) Philosophical matters related to the history of basic sciences and medicine or national or world events that impact medical education and biomedical research.

The committee will review the submitted questions and questions will be selected or created by the committee to ensure the questions are fair and appropriate, that they test the student's knowledge base for areas in the subject and that they help evaluate the problem solving skills of the student.

A student can avail a maximum of two attempts in the qualifying exam; failing which will result in the student being recommended to being dropped from the PhD program. In this case the Director of the Institute can elect to offer the failed student the option of completing a terminal Master's degree.

Once the student has passed the doctoral qualifying examination the student must register for Dissertation Research. A minimum of 06 credit hours is required for degree completion and typically occurs over 2 – 3 academic years. Initially, the student must identify a research project under the guidance of a faculty member and present it to GSC and ASRB.

## **Advancement to Candidacy**

### **Intention to submit form**

It shall be the responsibility of the student to initiate their candidacy by submitting "An Intention to Submit form" (Annexure) to the PhD coordinator prior to the thesis submission date. This form initiates the identification and appointment of a committee of examiners for each thesis.

Once the completed candidacy form has been processed, the thesis committee chair will receive ballots for the oral defence of the thesis. The ballots are distributed to the other committee members by the thesis committee chair when they vote on the oral defence. Once the ballots are completed, signed and sealed it is the committee chairperson's responsibility to deliver the ballots to the Graduate Education Office immediately following the defence.

### **Submission of thesis**

A copy of Ph.D. Dissertation (both hard and soft, according to KMU thesis guidelines) must be submitted to HEC for record in Ph.D. Country Directory and for attestation of the PhD degree by the HEC in future.

## Doctoral Oral Qualifying Examination (Thesis defence)

### Prerequisites

Prior to the doctoral student's request for consideration for advancement to candidacy, the student must have;

- Completed most of their required core or elective course work
- Successfully passed their Preliminary/Written Qualifying Exam
- Submission of their research proposal and the formation of their research committee
- Initiation of the major components of their proposed doctoral research project
- Finally registration for any research hours
- The oral qualifying exam will be scheduled after the student has submitted a detailed dissertation research proposal and conducted preliminary experiments to substantiate the proposal.
- The Plagiarism test must be conducted on the Dissertation before its submission to the two foreign experts.
- Evaluation of the doctoral thesis by 2 eminent foreign examiners from scientifically advanced countries, approved by HEC.

### Research Publication

Publication of at least one research paper in a HEC approved/recognized journal (preferably in W category) is essential before the submission of dissertation.

### The Defence

- The oral exam will be public and designed to test the student's fundamental knowledge of their proposed studies, background for the studies, and critical analysis and thinking.
- Viva voce examination by 2 national experts, approved by HEC.

The defence of the dissertation provides an opportunity for the student to formally present their findings to their committee, the faculty and students in IBMS, and to any family member or anyone from the general public wishing to attend.

Two weeks before the dissertation defence an electronic and print announcement of the date, time, location, and title of the defence will be publicized.

At least 7 working days prior to the defence, a final draft of the student's dissertation must be placed in the Conference Room for faculty and students to review.

The dissertation defence is two parts. First the student will make an oral, PowerPoint presentation of no longer than 45 minutes duration where they present their research.

Following the presentation, questions from the collective audience will be encouraged. Once all questions have been satisfactorily answered by the student, the audience is excused and the closed, or executive, part of the defence takes place with only the student and their committee present. The dissertation committee can ask detailed questions and expect the student to demonstrate thorough knowledge of their project and related research. Questions on general topics in Anatomy, unrelated to their research, may also be asked. Following all questioning, the student is excused from the room and the committee members, without discussion, complete the defence ballot.



**Dr Amna 1st PhD**



### Fellowships

A limited number of fellowships are available to support doctoral studies in Anatomy. Doctoral fellows will be expected to participate with faculty in the education of medical, professional, and graduate students working in both our teaching laboratories and classrooms. Acceptance into the doctoral program does not guarantee

the awarding of a fellowship or any other financial assistance. Consideration for a Doctoral Fellowship will be based on the qualifications of the candidate and the selection of the fellowship award recipient will be made solely by the Anatomy Graduate Program Director.

## Course Outline

Programme wise course distribution in each department

**Note: 1 credit hour means 16 hours of contact. Credit hours shown as 2+1or 2+0 means 2 credit hours of theory and 1 credit hr of practical while "0" means no practical.**

First semester Compulsory courses (8 credit hours Plus 1 for all specialties)						
BMS: 801			Advances in Molecular Cell Biology		1+1 Credit Hours	
BMS: 802			Ethics for Research Scientists		1+0 Credit Hours	
BMS: 803			Applied Biostatistics-II		1+1 Credit Hours	
BMS: 804			Presentation & Scientific Writing Skills		1+1 Credit Hours	
BMS: 805			Biosafety & Biosecurity		1+0 Credit Hours	
BMS: 806			Research Rotations (Two Electives)		1+0 Credit Hours	
Second Semester (1 Credit hour)						
BMS: 807			Teaching Rotation ( Elective Choice)		1+0 Credit Hours	
Third and Sixth Semesters (6 credit hours)						
BMS: 899			Thesis		6 Credit Hours	
Core courses (Specialty-wise courses) (8 Plus 1 credit hours)						
Semester 2:PhD Anatomy				Semester 2:PhD Biochemistry		
ANA: 801	Human Development	2+0		BIO: 801	Advances in Clinical Biochemistry	2+1
ANA: 802	Advanced Microscopic Anatomy & Microtechniques	2+1		Bio: 802	Computational Biochemistry	2+1
ANA: 803	Advanced Neurobiology	2+1		BIO: 803	Advanced Nutritional Biochemistry	2+1
Semester 2:PhD Dental Materials				Semester 2: PhD Molecular biology& genetics		
DMS 801	Advanced Material Characterization Technique	1+1		MBG 801	Advances in Medical Genetics	2+1

DMS 802	Biomaterials for Oral and Dental Tissues	1+1		MBG 802	Computational biology-II	2+1
DMS 803	Tissue Engineering Strategies	1+0		MBG 803	Molecular genetics of Microbes	2+1
DMS 804	Oral and Dental Soft Tissue Engineering	2+1				
BMS 807	Teaching rotation (Elective choice)	1+0				
BMS 899	Dissertation Research	6 credit s				
Semester 2: PhD Physiology						
PHY801	Endocrinology II	2+1				
PHY 802	Respiration, sports& Cardiovascular physiology	2+1				
PHY 803	Advanced neurobiology	2+1				
Optional						
BMS810	Diabetology	1+1				

## MPHIL (MASTER OF PHILOSOPHY)

Anatomy	Biochemistry	Physiology	Molecular biology & Genetics
Human nutrition	Dental materials	Oral biology	Forensic Medicine & Toxicology

### Mission

This department endeavors to be a world-class Institute of Basic Medical Sciences providing quality knowledge in Basic Medical sciences to those who rightfully seek it. To strengthen its existing postgraduate programs by upgrading them and launching new ones for diversification and to facilitate the production of trained scientists and researchers who will meet the demands in the country.

### Overview

This is a two-year course that shall include both *taught courses* as well as *research*.

In the first semester students shall complete the core courses required by the Basic Medical Sciences program as well as completing research rotations whereby selecting a research supervisor and mentor. They shall complete a qualifying exam at the end. In the second semester the remaining courses in Basic Medical Sciences will be undertaken. In the third to fourth semesters they shall complete a research project, dissertation writing and defending their thesis. In addition the course engages its students in activities ranging from optimization of laboratory protocols and animal handling to poster & oral presentations and critical reviews of recent studies in the corresponding Basic Medical Sciences courses.

The institute arranges research days and conferences at various intervals throughout the year, in which the new inductees are given an opportunity to develop an orientation regarding the core activities and structure of the institute while the current students present their posters and critical reviews and receive feedback from the faculty members of different departments.

Furthermore, students are assessed for their understanding and application of Basic Medical Sciences knowledge through both formative and summative assessments.



### Outcomes

The Graduate of M.Phil Basic Medical Sciences will have the attributes of a Subject specialist, scientific researcher, Educator, Effective communicator and Collaborator. By the end of the course students should have achieved the required level of,

- Subject based knowledge and skills
- Relevant basic as well as applied research in biomedical sciences
- Quality and credible research
- Presentation and communication skills
- Capability of teaching medical disciplines

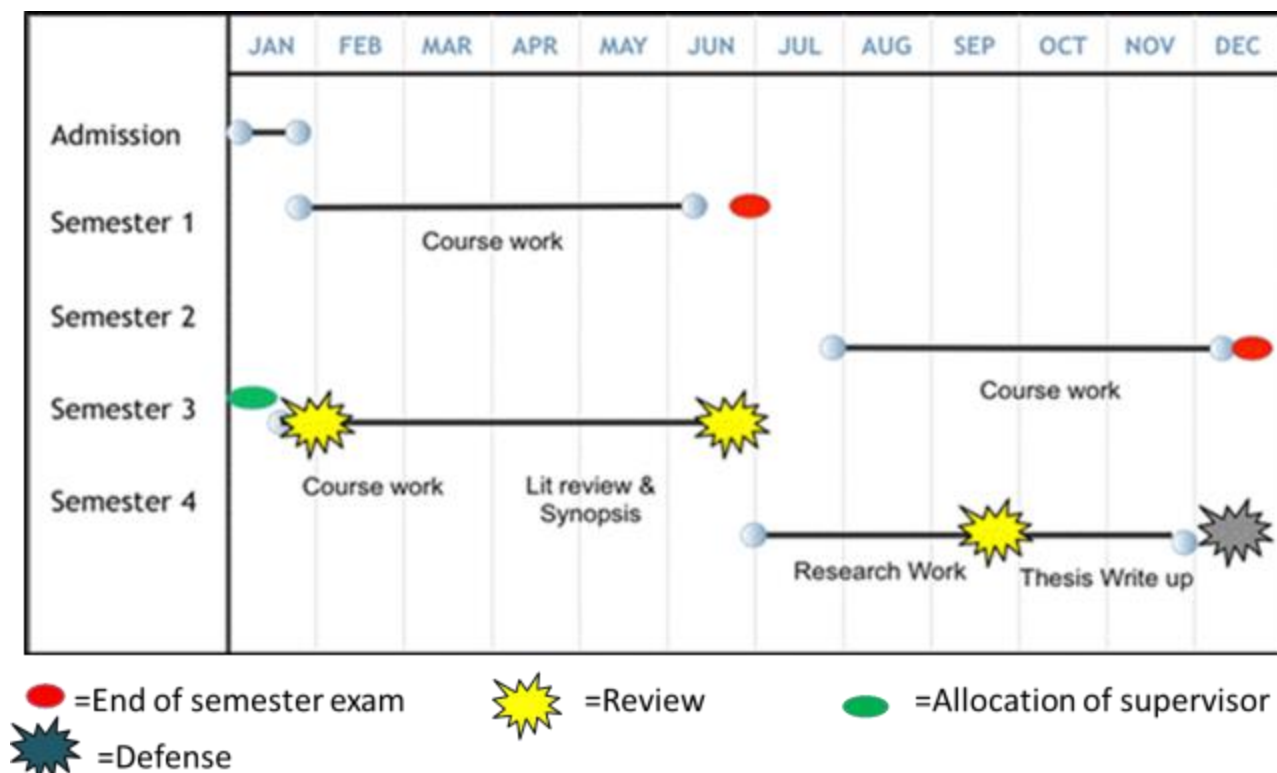
### PROGRAM DETAILS

<b>COURSE TITLE</b>	M.Phil
<b>SPECIALTY</b>	Basic Medical Sciences (Anatomy, Biochemistry, Physiology, Molecular biology and genetics, Human Nutrition, Forensic medicine & toxicology, Dental materials, Oral biology)



<b>COURSE DURATION</b>	Two years
<b>TYPE OF STUDY</b>	Full time
<b>STUDY SYSTEM</b>	Semesters system <ul style="list-style-type: none"> <li>● 4 Regular Semester <ul style="list-style-type: none"> <li>○ 2 semesters for coursework</li> <li>○ 2 semesters for research work</li> </ul> </li> </ul>
<b>TOTAL CREDIT HOURS</b>	<ul style="list-style-type: none"> <li>● Total Credit hours 48</li> <li>○ 24+6 Credit hours Course Work</li> <li>○ 18 credit Hours Research work</li> </ul>
<b>DISTRIBUTION OF COURSES AND CREDIT HOURS</b>	<ul style="list-style-type: none"> <li>● 1<sup>st</sup> semester (12 Credit hours) <ul style="list-style-type: none"> <li>○ 4 Compulsory courses (8 Credit hours)</li> <li>○ Specialty courses (4 credit hours)</li> </ul> </li> <li>● 2<sup>nd</sup> semester (12 Credit hours) <ul style="list-style-type: none"> <li>○ Specialty Courses (8 Credit Hours)</li> <li>○ Optional Courses (4 Credit hours)</li> </ul> </li> <li>○ 3<sup>rd</sup> Semester (12 credits)</li> </ul>
<b>DEGREE AWARDING INSTITUTION</b>	Khyber Medical University Peshawar
<b>TEACHING INSTITUTION</b>	Institute of Basic Medical Sciences (IBMS) Khyber Medical University Peshawar
<b>ADMISSION / ELIGIBILITY CRITERIA</b>	<p><b>For Anatomy &amp; Physiology:</b> MBBS, BDS or equivalent medical qualification OR DPT fully recognized/ registered by the PM&amp;DC or PPTA</p> <p><b>For Biochemistry:</b> (MBBS, BDS or equivalent medical qualification fully recognized/ registered by the PM&amp;DC) OR, BS (4years), OR M.Sc. in Biochemistry and Human Nutrition, OR BS MLT (4 years)</p> <p><b>For Molecular biology and genetics:</b> BS 4yrs OR M.Sc. biological sciences</p> <p><b>Human Nutrition:</b> MBBS, BDS or equivalent medical qualification recognized by PMDC OR BS Nutrition/Human Nutrition/Food Science &amp; Nutrition/Food Science &amp; Technology/Biochemistry from HEC recognized institute</p> <p><b>Dental Materials &amp; Oral biology:</b> BDS or equivalent Dental qualification fully recognized/ registered by the PM&amp;DC</p> <p><b>Forensic Medicine and Toxicology:</b> MBBS or Equivalent Degree registered with PM&amp;DC</p> <p><b>For All others:</b> MBBS, BDS or equivalent medical qualification registered by PM&amp;DC</p>

## Timeline for M.Phil Process



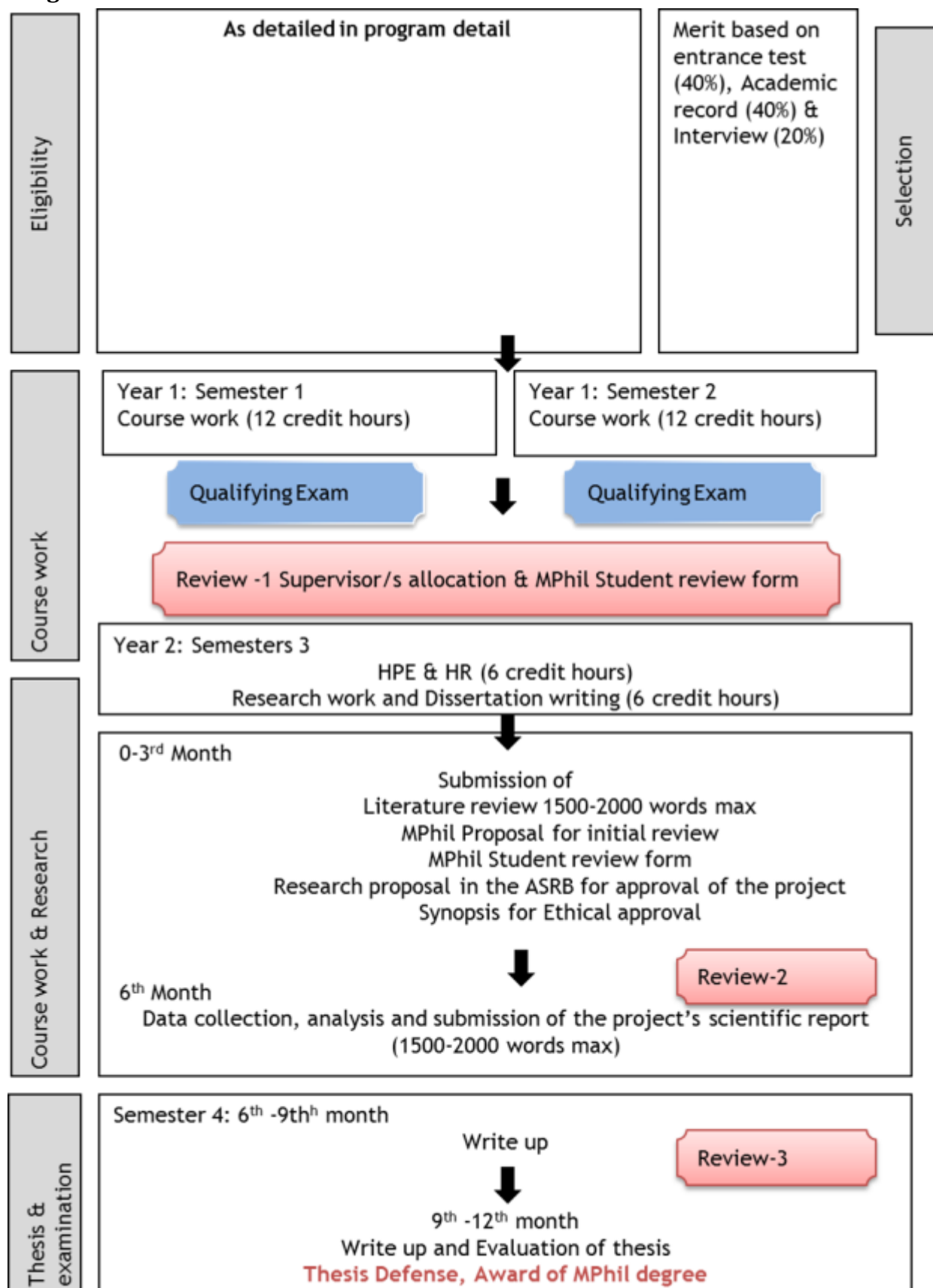
## Mentors

The students shall select their teaching mentor in the first and research mentor at the end of second semester. The coordinator shall serve as mentor before selection of mentors.

## Duration of M.Phil Degree

A HEC recognized supervisor would supervise the research work and award of degree and co-supervisor from related areas of expertise. Upon admission to the M.Phil program a supervisor will be allotted to the enrolled student who will guide the student in the selection of his/her area of research along with the development of research proposal and protocol. The supervisor and co-supervisor will also ensure that the student develops essential skills according to his area of research. The requirements for M.Phil degree shall normally be completed within two years from the date of registration. The maximum time for the completion of M.Phil degree shall be four years from the date of registration in the M.Phil program. Only under exceptional circumstances, to be described in detail by the M.Phil candidate and supported by the supervisor, the M.Phil advisory committee may allow extension of up to one year beyond the maximum time limit of four years. A total of 30 hours (24 credit hours coursework, 06 hours dissertation research) is required for graduation.

## Programme structure



## Review Process

### Year 1

The scholar shall clear End of semester qualifying exams to progress to next semester.

After successfully clearing two End of semester exams, the student shall proceed to Year 2 of M.Phil. The first review will include submission of M.Phil student review form (Annexure I) and allocation of supervisors to each M.Phil student.

## **Year 2**

### **0-3 Month**

The student shall submit a review of the literature for the potential project (1500 Words minimum, 2000 Words maximum) in the form of a scientific report.

The student should submit an M.Phil Proposal to his/her supervisor for initial review. The supervisor will then assess the project and identify training needs if required.

The student should now accommodate supervisor comments, re-check from supervisor and submit research proposals to IBMS Graduate Study Committee. This should be followed by submission of "M.Phil Student Review Form" (Annexure 1), literature review and defense of research proposal in the annual review meeting of the Advanced Studies Review Board (ASRB) and Ethical approval.



**Poster Presentations**

### **6<sup>th</sup> Months (Review 2)**

The review process of Year 2 includes,

- Bi-annual presentation<sup>#</sup> in the Department at the end of 6<sup>th</sup> and 9<sup>th</sup> month organized by the Head of the Department followed by submission of "M.Phil Student review form"
- Scientific report<sup>\*</sup>

The student should be working on collecting data, optimizing experiments, establishing collaborations and developing experimental/research plans for successful completion of the M.Phil project. In addition the student shall submit a scientific report of maximum 1500-2000 words.



**Review Presentations**

Students and supervisors should complete the Bi-annual review process by stipulated dates of the year. Any student starting late will normally be permitted to delay submission of their annual report as decided by the departmental head.

Two reviewers assigned by the supervisor at the beginning of year 2 will assess the progress of students. The progress made by the student will then be communicated to the relevant supervisor and head of the department.

### **6<sup>th</sup>-9<sup>th</sup> Months (Review 3)**

At this point the students shall be doing the write up of their research projects and present it to their respective supervisors, who will review them as a part of bi annual research days.

#### **\*Scientific report**

A scientific report preferably in the style of a journal article (6 to 10 pages maximum is recommended) summarizing progress made in the last year. It may therefore contain an abstract, introduction, materials and methods, results and discussion. In addition, there should be a 1500-2000 word section at the end of the report detailing the following year's work (Future plans). To be sent to the supervisor for assessment and comment (half a page maximum) and subsequently submitted to the reviewers.

## #Presentation

All M.Phil students are required to deliver an oral presentation in the meeting, especially organized for them. This is followed by discussion, including a minimum of two subject experts. The decision will then be made regarding the registration of students for the next session.

## Thesis pending period

Final 9-month interview - Students at absolute thesis submission deadline will be interviewed specifically on their progress in the review meeting (For thesis writing guidelines see KMU website)

## Qualifying Examinations and Defense

### End of Semester Exam

Upon completion of the core curriculum, the student must prepare for and successfully pass the M.Phil qualifying examination at the end of each semester (1 & 2) to test their knowledge of basic medical sciences, grasp of relevant literature, and the ability to form research hypotheses and experimental design. It shall be a written and oral exam.

### Submission of thesis

The copies of M.Phil dissertation (both hard and soft) must be submitted to the university library for record purposes.

## M.Phil Oral Qualifying Examination (Thesis defense)

### Prerequisites

Prior to the M.Phil student's request for consideration for the defense, the student must have;

- Completed most of their required course work
- Successfully passed their end of semester exams.
- Submission of their research proposal to Graduate studies, ASRB and ethical board.
- The oral qualifying exam will be scheduled after the student has submitted a detailed dissertation research proposal and conducted preliminary experiments to substantiate the proposal.
- The Plagiarism test must be conducted on the Dissertation before its submission to the two external reviewers.
- After the approval from the 2 external reviewers, the dissertation will be forwarded to internal and external examiners for deliberation before the defense.

### The Defense

- The defense of the dissertation provides an opportunity for the student to formally present their findings to his/her examiners.
- Two weeks before the dissertation defense an electronic and print announcement of the date, time, location, and title of the defense will be provided to the student and the supervisor.
- The defense will consist of 2 phases; firstly the student will make an oral, PowerPoint presentation of his/her project for no longer than 20minutes, followed by the question answer session by the examiners.



**MPhil Thesis Defence**

- Once thoroughly evaluated, the examiners will make their final declaration and the M.Phil degree will be awarded to the student.

## Courses Outline

Programme wise course distribution in each department

**Note: 1 credit hour means 16 hours of contact. Credit hours shown as 2+1or 2+0 means 2 credit hours of theory and 1 credit hr of practical while "0" means no practical.**

First semester Spring Compulsory courses (8 credit hours, for all specialties)		
BMS: 701	Molecular Cell Biology	2+0 Credit Hrs
BMS: 702	Applied Biostatistics	2+0 Credit Hrs
BMS: 703	Communication Skills and Medical Writing	2+0 Credit Hrs
BMS: 766	Biosafety, Bioethics & One health	2+0 Credit Hrs
BMS: 798	Seminars, Symposia, Conferences	Non-Credit
Third and Fourth Semesters (6 credit hours)		
BMS: 799	Thesis	12 Credit Hrs
Core courses (Specialty-wise courses) (12 credit hours)		
Department of Anatomy		
Semester 1:Mphil Anatomy		
ANA 705	Viscerology (Anatomy of Organs)	1+1
ANA 701	Developmental Anatomy (Embryology)	2+0
Semester 2:MPhil Anatomy		
ANA 703	Neurobiology	2+1
ANA 704	Musculoskeletal anatomy	2+1
ANA 702	Microscopic anatomy & microtechniques	2+2
BMS 798	Seminars, Symposia, Conferences	Non-Credit
Optional courses		
BMS 729	Cancer Genetics	1+1
BMS:708	Functional anatomy	1+1
BMS 709	Forensic anatomy	2+0
BMS 710	Comparative anatomy	2+0
BMS 706	Health Research	2+0
BMS 797	Intelligent Anatomy; From Structure to Stimulation	2+0
Department of Biochemistry		
Semester 1: Mphil Biochemistry		
BIO 706	Macromolecules and Enzymology	2+0
BIO 703	Nutritional Biochemistry	1+1
Semester 2: Mphil Biochemistry		
BIO 701	Metabolism of Carbohydrates and lipids	2+1
BIO 702	Metabolism of Proteins and Nucleotides	2+0
BIO 705	Biochemical Techniques	2+1
Optional		
BMS 711	Biochemistry of Specialized Tissues	1+1
BMS 712	Hormones and Cellular Signaling	2+0
BMS 713	Biochemistry of Blood	2+0
Department of Dental Materials		
Semester 1: Mphil Dental Materials		
DMS 701	Fundamentals of Dental Materials	1+1

DMS 702	Direct, Indirect and Auxiliary Dental Materials	1+1
<b>Semester 2: Mphil Dental Materials</b>		
DMS 703	Biocompatibility & Biological interactions of DM	1+1
DMS 704	Characterization of Dental Materials	2+1
DMS 705	Emerging technologies & Advanced Dental Materials	2+1
<b>Optional</b>		
BMS 754	Biomaterials	1+1
BMS 755	Tissue Engineering	1+1
<b>Department of Forensic Medicine &amp; Toxicology</b>		
<b>Semester 1: Mphil Forensic Medicine &amp; Toxicology</b>		
FMT 701	Fundamentals of Forensic Science	2+0
FMT 702	Thanatology and Traumatology	1+1
<b>Semester 2: Mphil Forensic Medicine &amp; Toxicology</b>		
FMT 703	Medico-Legal Jurisprudence	2+0
FMT 704	General and Special Toxicology	1+1
FMT 705	Forensic Genetics	1+1
FMT 706	Medico-legal aspects of sexual assaults and Asphyxia	1+1
<b>Optional</b>		
BMS 767	Analytical Toxicology and toxicology of Therapeutic agents	1+1
BMS 768	Drug Biotransformation & Molecular Mechanism of Toxicology	1+1
BMS 769	Forensic Anatomy and Odontology	1+1
BMS 770	DNA fingerprinting	1+1
BMS 771	General Forensic Tools and Techniques	1+1
BMS 772	Advances in Forensic Genetics	1+1
BMS 773	Biological Evidence and Serology	1+1
BMS 774	Crime Scene Management	1+1
BMS 775	Forensic Psychiatry	1+1
BMS 776	Forensic Pathology	1+1
<b>Department of Human Nutrition</b>		
<b>Semester 1: Mphil Human Nutrition</b>		
HUN 701	Fundamentals of Human Nutrition	2+0
HUN 703	Clinical Nutrition-I	2+0
<b>Semester 2: Mphil Human Nutrition</b>		
HUN 702	Maternal, Infant, Child & Adolescence Nutrition	2+0
HUN 704	Nutritional epidemiology	2+1
HUN 705	Public Health Nutrition	2+0
HUN 706	Clinical Nutrition-II	2+1
<b>Optional</b>		
BMS 748	Exercise & Sports nutrition	2+0
BMS 749	Nutrition Counseling & Communication skills	2+0
BMS 750	Economic Development & Nutrition	2+0
BMS 751	Food Safety	2+0
BMS 752	Nutrition Interventions	2+0
BMS 753	Advanced Nutritional Epidemiology	2+0
BMS 754	Food Services Management	2+0
<b>Department of Molecular Biology &amp; Genetics</b>		
<b>Semester 1: Mphil Molecular Biology &amp; Genetics</b>		
MBG 705	Computational Biology-I	1+1



MBG 701	Molecular Basis of Inheritance	1+1
<b>Semester 2: Mphil Molecular Biology &amp; Genetics</b>		
MBG 703	Cell Signaling	2+0
MBG 704	Principles of Proteomics	1+0
MBG 702	Gene Expression and Regulation	1+1
MBG 706	Programming in Bioinformatics	2+1
<b>Optional</b>		
BMS 724	Recombinant DNA Technology	1+1
BMS 725	DNA Fingerprinting	1+1
BMS 726	Microbial Genetics	1+1
BMS 727	Genomics	1+1
BMS 728	Evolutionary Genetics	1+1
BMS 729	Cancer Genetics	1+1
BMS 730	Advances in Forensic Sciences	1+1
BMS 731	Epigenetics	1+1
BMS 732	Databases and Web Designing	1+1
BMS 777	Immunobiology	1+1
<b>Department of Oral Biology</b>		
<b>Semester 1: Mphil Oral Biology</b>		
ORB 701	Introduction to Oral Biology	1+1
ORB 702	Oral and Craniofacial Development	1+1
<b>Semester 2: Mphil Oral Biology</b>		
ORB 703	Head, Neck, and Oral anatomy	1+1
ORB 704	Oral Physiology	1+1
ORB 705	Oral Histology and Pathology	1+1
ORB 706	Saliva and Oral Microbiome	1+1
<b>Optional</b>		
BMS 754	Biomaterials	1+1
BMS 755	Tissue Engineering	1+1
<b>Department of Physiology</b>		
<b>Semester 1: Mphil Physiology</b>		
PHY 702	Physiology of Blood, Clotting & Immunity	1+1
PHY 703	Neurobiology	2+0
<b>Semester 2: Mphil Physiology</b>		
PHY 701	Endocrinology 1	2+1
PHY 704	Heart & CVS	2+1
PHY 705	Respiratory Physiology	2+0
<b>Optional</b>		
BMS 745	Diabetology	1+1
BMS 742	Sports Physiology	1+1
BMS 743	Reproductive Physiology	1+1

### DISTRIBUTION OF SEATS:

The number of seats in M.Phil (Basic Medical Sciences) Programs will be determined from time as per available seats and number of Supervisors.

### Fee Structure:

The fee structure of M.Phil programs are as under:-

<b>Semester Fee</b>	<b>Rs.100,000</b>
<b>KMU Registration Fee (One time)</b>	<b>Rs. 3000</b>
<b>PMDC Registration Fee (One time)</b>	<b>Rs. 6000</b>
<b>M. Phil Thesis Evaluation Fee (One time)</b>	<b>Rs.50,000</b>

**Note:** Regulatory Body Registration Fee is applicable as per rules/policy of the regulatory body.

### Certificate and Diploma Courses

Clinical nutrition	Biorisk management	Animal handling	Transfusion Practices	Applied biostatistics
--------------------	--------------------	-----------------	-----------------------	-----------------------

<b>TITLE</b>	<b>Postgraduate Diploma in Clinical Nutrition</b>
<b>COURSE DURATION</b>	One year
<b>STUDY SYSTEM</b>	Contact sessions
<b>TOTAL CREDIT HOURS</b>	Total Credit hours 18 (Each module of 2 credits)
<b>MODULES</b>	<ul style="list-style-type: none"><li>○ Fundamentals of human nutrition</li><li>○ Nutritional assessment</li><li>○ Nutrition and Weight management</li><li>○ Nutrition in Health and disease</li><li>○ Nutrition support</li><li>○ Pediatric nutrition</li></ul>
<b>ELIGIBILITY CRITERIA</b>	MBBS/BDS or equivalent (Recognized by PMDC) BS Nursing or equivalent (Recognized by PNC) B-Pharmacy/D-Pharmacy BS Medical Laboratory Technology (MLT) or equivalent Doctor of Physical Therapy (DPT)

<b>TITLE</b>	<b>Postgraduate Certificate in Transfusion Practices</b>
<b>COURSE DURATION</b>	6 Months
<b>STUDY SYSTEM</b>	Contact sessions
<b>TOTAL CREDIT HOURS</b>	12 CREDITS (3 per module)
<b>MODULES</b>	<ul style="list-style-type: none"><li>● Fundamentals of transfusion practice</li><li>● Quality in transfusion practice</li><li>● Transfusion practice-advanced concepts</li><li>● Transfusion practice-Practical skills</li></ul>

<b>ELIGIBILITY CRITERIA</b>	MBBS/BDS or equivalent (Recognized by PMDC) BS Nursing or equivalent (Recognized by PNC) BS/ MSc Paramedics, BS Medical Laboratory Technology or equivalent (Computer literacy in MS Office and Internet. Interview will be conducted for eligible candidates)
-----------------------------	---

<b>COURSE TITLE</b>	<b>Post graduate Certificate in Biorisk assessment/management</b>	
<b>COURSE DURATION</b>	6 months	
<b>STUDY SYSTEM</b>	Contact sessions	
<b>TOTAL CREDIT HOURS</b>	12 Credits (2 per module)	
<b>MODULES</b>	<ul style="list-style-type: none"> <li>• Biorisk management</li> <li>• Biorisk assessment</li> <li>• Biorisk mitigation strategies</li> <li>• Human performance</li> <li>• Biosafety levels</li> <li>• Lab building systems &amp; lab design best practices</li> </ul>	<ul style="list-style-type: none"> <li>• Good lab work practices</li> <li>• Personal protective equipment</li> <li>• Biosecurity</li> <li>• Incident management</li> <li>• Waste management</li> <li>• Decontamination</li> </ul>
<b>ELIGIBILITY CRITERIA</b>	MBBS/BDS or equivalent (Recognized by PMDC) BS Nursing or equivalent (Recognized by PNC) BS/ M.Sc. Paramedics, BS Medical Laboratory Technology or equivalent Or any person involved in laboratory work with bachelors degree.	

<b>COURSE TITLE</b>	<b>Post graduate Certificate in Animal Handling</b>	
<b>COURSE DURATION</b>	10 Days	
<b>STUDY SYSTEM</b>	Contact sessions	
<b>TOTAL CREDIT HOURS</b>	12 (2 credits per module)	
<b>MODULES</b>	<ul style="list-style-type: none"> <li>• Basics of animal handling <ul style="list-style-type: none"> <li>○ Introduction of Laboratory Animals and selection of appropriate animal model</li> <li>○ Anatomical and physiological features of research animals</li> <li>○ Ethical principles in animal research</li> <li>○ Regulations governing the killing of laboratory animals</li> <li>○ Best practice for animal transport, Housing, husbandry &amp; record keeping</li> <li>○ Health safety and security</li> <li>○ Euthanasia, Principles of anaesthesia, Principles of analgesia</li> </ul> </li> <li>• Advanced animal handling and procedures <ul style="list-style-type: none"> <li>○ Recognition and Prevention of Pain, Suffering and Distress in Laboratory Animals</li> <li>○ Small animal Handling and restraining</li> <li>○ Animal Health &amp; Disease</li> <li>○ Introduction to Non-surgical procedures</li> <li>○ Surgical Module</li> </ul> </li> </ul>	

<b>ELIGIBILITY CRITERIA</b>	MBBS/BDS or equivalent (Recognized by PMDC), Pharm-D, university or any graduate involved in animal handling and studies.
-----------------------------	---

<b>COURSE TITLE</b>	<b>Post graduate Certificate in Applied biostatistics (CAB)</b>	
<b>COURSE DURATION</b>	6 months	
<b>STUDY SYSTEM</b>	Contact session	
<b>TOTAL CREDIT HOURS</b>	12 (2 credits per module)	
<b>MODULES</b>	<ul style="list-style-type: none"> <li>● <b>Applied Biostatistics I</b> <ul style="list-style-type: none"> <li>○ Introduction to Applied Biostatistics &amp; Study Designs</li> <li>○ The Use of MS Excel for Data Management &amp; MS PowerPoint for Figure Editing</li> <li>○ Introduction to SPSS and data entry in SPSS &amp; Data Types</li> <li>○ Numerical &amp; graphical Summary of Data</li> <li>○ Data distribution</li> <li>○ Application of Parametric Tests/Non Parametric Tests</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● <b>Applied Biostatistics II</b> <ul style="list-style-type: none"> <li>○ Sample Size Calculations</li> <li>○ Tests for Categorical Data</li> <li>○ Correlation Statistics &amp; Regression</li> <li>○ Diagnostic Tests</li> <li>○ Literature Search- Searching Databases</li> <li>○ Systematic Review &amp; Meta-analysis</li> </ul> </li> </ul>
<b>ELIGIBILITY CRITERIA</b>	All Health Care Professionals (Doctors, Vet Doctors, Dentists, Pharmacists, Physiotherapists, Nurses and Paramedics) Human psychology Human nutrition Biotechnology, microbiology, biochemistry, molecular biology and genetics Anyone interested in biostatistics	

**DISTRIBUTION OF SEATS AND FEE STRUCTURE:**

Programs	Clinical nutrition	Biorisk management	Animal handling	Transfusion Practices	Applied biostatistics	Proposed addition of FATA seat(s) in each discipline*
No. of Seats	20	20	20	20	20	01
Fee Per Semester/Course	@ Rs. 40000- per semester (Rs. 80000/- for 01 year)	Rs.40000	Rs. 40000	Rs. 40000	Rs. 40000	
KMU Registration Fee	Rs.3000 /-					
Regulatory body / PMDC Reg. Fee	Rs.1000/-					

**\*Increase in No of FATA seats is subject to approval of the Federal Government.**

**Note:** Regulatory Body Registration Fee is applicable as per rules/policy of the regulatory body.

**IBMS ACADEMIC AND RESEARCH ACTIVITIES**

Keeping in view their real life impact, different co-curricular activities are conducted by IBMS including weekly seminars, scientific talks, symposia, periodic research days, workshops, training and conferences. In addition to the time to time activities, three main activities that are a regular part of IBMS academic calendar include Annual international Basic Medical Sciences conference, Monthly Biosafety training and weekly IBMS research symposia. Details of these regular activities are as follows.

**1. Basic Medical Sciences Research Symposia (BMS-RS) forum**

The Basic Medical Sciences Research Symposia (BMS-RS) forum is an initiative of IBMS where the foreign speakers, faculty and students are provided with an opportunity to present their research and academic achievements and scientific experiences. This initiative was taken during the first half of 2018 by Director IBMS and led by Dr Hafsa Muhammad. This BMS-RS forum has hosted overall 35 research and academic activities including 22 seminars, 03 symposia, 04 annual research days and 06 workshops across multiple disciplines. At this forum, not only faculty members and post graduate scholars showcase their work but also speakers from many prestigious national and foreign institutes participate in order to expand the knowledge of our scholars and to have exposure to current trends in their respective fields. It is our objective to provide a platform for university's medical doctors and researchers to come together and participate in various academic and research activities preparing them to face the realities of life and challenges in the research field. It also provides the students and faculty to collaborate on research and continues to be one of the most significant events on the campus. All the events were successfully completed with enthusiastic participation of the faculty and students of IBMS and KMU at large.

**Participants' feedback:**

- About workshop on Biosafety and biorisk management:

*"I am glad to attend this workshop as it has demonstrated many important points related to Biosafety in labs. The hands-on session was even more helpful. Considering that M.Phil study is based on research, it is very important to be able to protect ourselves when working with pathogenic micro-organisms."*

- About symposium on bone marrow transplant:

*"It was an amazing experience for me to be able to hear from such senior and experienced doctors about their own work and complication that could arise during bone marrow transplant and how to be able to handle them"*

- About biochemistry research day:

*"Very informative and the completed projects as well as the ongoing projects are great. It shows that KMU has very capable faculty and students."*

#### List of academic and research activities (January 2025 – April 2026)

S. No	Nature of activity	Topic	Speaker
1	Symposium	Introduction to forensic odontology and its domain	Dr Wahaj Anees
2	Symposium	Gene identification in rare disease: A story of 22 years	Dr. Musharaf Gillani
3	Pre-Defense	Characterization of mutations in genes causing familial primary congenital glaucoma	Dr. Shahzad Ahmad
4	Symposium	Integrative nutritional and pharmacological Interventions in women with polycystic ovary syndrome: Randomized Control Trials Assessing endocrine, metabolic, oxidative stress, quality of life and psychological outcomes.	Dr. Musarrat Zahra
5	Symposium	Development of aptamer-based biosensors for the detection of interferon gamma	Dr. Ambereen
6	Symposium	Role of calcitriol on remyelination of sciatic nerve compression model in rodents	Dr. Nazish Waheed
7	Pre-Defense	Genetic evaluation of autosomal recessive pattern of epilepsy in consanguineous families of Khyber Pakhtunkhwa	Dr. Anees Muhammad
8	Symposium	Roadmap to Breakthroughs: Novel Drug Development In the modern era	Dr. Muhammad Nabi
9	Symposium	The application of scientific method: Preclinical trials.	Dr. Najeebullah
10	Talk	Pakistan prescripts, standards and guidelines for quality assurance in higher education (PSG – 2023)	Dr. Asia Bukhari
11	Symposium	Ethical challenges associated with AI in medicine	Dr. Muhammad Ibrahim Rashid
14	Workshop	Strategies to develop chemical and biological safety culture in laboratories	Speakers from Pakistan Biological Safety Association
15	Seminar	Bioinformatics and Computational Biology	Dr. Zahid Khan

16	Workshop	Use of bioinformatics tools in genetics research	Dr. Zahid Khan
17	Seminar	Cytogenetics: Advances and applications	Prof. Dr. Muhammad Ismail
18	Workshop	Karyotyping: A traditional Approach	Dr. M. Ismail, Mr. Qaisar Mansoor and Dr. Hafsah Muhammad
19	Symposium	Gynecology	Multiple gynecologists
20	Research Day	Biochemistry Research Day 2018	IBMS Biochemistry Students
21	Seminar	Forensic Genetics Research: How to generate research ideas	Dr. Hafsah Muhammad
22	Interactive session	Formation of IBMS Societies and clubs	Dr. Zilli Huma, Dr. Hafsah Muhammad
23	Seminar	High-Resolution Melting Curve Analysis: A solution for mutation screening and genotyping	Prof. Dr. Jamil Ahmad
24	Seminar	Arsenic toxicology, potentially collaborative project	Prof. Dr. Qizhan Liu
25	Research Day	Anatomy Research Day 2019	Anatomy Students
26	Seminar	Medical Oncology and aggressive disease	Dr. Naser Uddin Hoti
27	Seminar	Microbial genetics	Dr. Abid Ali Khan
28	Symposium	Biochemistry Research Symposium 2019	Biochemistry Students
29	Seminar	Assessment of gender differences in Autonomic nervous control of the Cardiovascular system	Dr. Omema Zafar
30	Seminar	Re-mineralising, Anti-bacterial, and Self-adhesive Dental composites for tooth repair	Dr. Saad Liaqat
31	Seminar	How to speak powerful so that people listen	Dr. Asif Ali
32	Seminar	Apoptotic Model for human neuroblastoma (SH-SY5Y) cells, leading to ROS generation, mitochondrial disintegration and PTMs & translocation of ERp-57	Dr. Atif Kamil
33	Seminar	Autophagy-dependent Regulation of Cancer Mediators in EMT and Cancer Metastasis	Dr. Sahib Zada
34	Workshop	Nutritional Epidemiology	Dr. Khalid Iqbal
35	Seminar	Plasma vitamins status and their relationship with dietary intake and body mass index in antenatal women. A pilot study.	Mr. Babar Shehzad
36	Seminar	Transfection and transformation	Dr. Hala Rajab



Seminar on Computational Biology by Dr. Zahid



Dr. Najeebullah (Focal Person) presenting



Dr. Saad and Dr. Irshad presenting certificate to



Dr. Ibrahim Rashid discussing AI in medicine.



Dr. Musharaf Gillani presenting Gene identification in rare disease: 22 years story



Dr. Bushra Presented Certificate of Appreciation



## 2. Biosafety Trainings

Biosafety and biosecurity being vital needs of the day are properly addressed by IBMS. In this regard, professionally trained and certified Biosafety master trainers are recruited to conduct the monthly training titled “Biosafety, Biosecurity and Bio-Risk Management”. Every student of IBMS has to get this training in an eight hours intensive workshop. Biosafety training is conducted on a monthly basis after the Graduate Study meeting where the students are trained to work in a safe and secure manner before embarking into the laboratory research work. The certificate of this training is mandatory for being eligible to appear in ASRB. The students’ performance in the workshops are evaluated in Pre- and Post-training assessment tests where the minimum score required for the award of certificate is 75%. The overall training program and facilitator’s performance is also evaluated at the end of each workshop.



### 3. BMedCon Series:

The initiative to organize an annual international conference in Basic Medical Sciences was launched in 2017. The first conference of this series, BMedCon'18 (October 23–25, 2018), was successfully held at IBMS, KMU, featuring pre-conference workshops followed by two days of scientific sessions, with strong national and international participation. Building on this success, the 2nd International Basic Medical Sciences Conference (BMedCon'23) was held in November 2023, attracting a large number of national and international speakers, researchers, and students, and further strengthening IBMS's role as a platform for academic exchange and research collaboration. IBMS remains committed to organizing this conference regularly with continuous academic enhancement.





**Intellident Workshop**



**IBMS faculty served as co-chairs at ICHR-25**



**Inauguration of Dr. Jaffar Khan Biochemistry Laboratory**



**Biannual Anatomy Research Day**



**KMU hosts Mega Job Fair 2025**



**Appointment letter presented to a student by the Chief Guest at the Job Fair 2025.**

