



University of Balochistan Quetta

PROSPECTUS 2015-16 Bachelor Degree Programs

Faculty of Life Sciences

- 1). BS. (Bio-Tech/ Bio-Chemistry)
- 2). BS. (Microbiology)

Faculty of Management Sciences, Business and Information Technology

- 1). BS. (Computers Science)
- 2). BS. (Information Technology)
- 3). B.Com.

Faculty of Pharmacy

- 1). Doctor of Pharmacy (Pharm - D)
- 2). Doctor of Physical Therapy (DPT)
- 3). Bachelor of Eastern Medicine & Surgery (B.E.M.S.)

Faculty of Earth and Environmental Sciences

- 1). BS. (Geology)

Faculty of Education and Humanities

- 1). Bachelor in Fine Arts
- 2). Institute of Education & Research



VICE CHANCELLOR'S MESSAGE TO STUDENTS



Welcome to University of Balochistan, Quetta!

You are getting on perhaps the most important and exciting journey of your life with leading mother institution of Balochistan. You will be exploring new areas, discovering new interests, learning new skills and learning to view your surroundings with a new understanding. By the end of this journey, we hope you will know what really motivates and drives you as a person of responsibilities and devotions. The students and faculty are supported by a highly qualified and motivated administrative staff that ensures the application of merit as the only consideration for all decisions. The faculty, students and the staff together constitute the UoB team that strives each day to take this institution to new heights of excellence in academics, research, community service and knowledge exchange. Tolerance, respect for diversity, uncompromising ethics, integrity and respect, together with our loyal principles of unity, faith and discipline constitute the core values of every UoB team member. We come from different regions of the country, from vastly different social divisions, different ethnicities; a true representation of the beautiful assortment of Pakistan, united in our belief in core values. Sports, Art, Drama, Debates and a numerous of other activities, events and functions provide you with an opportunity to grow as a person and demonstrate the values we cherish.

UoB has grown to incorporate new disciplines, mostly department of Pharmacy into a full-fledged Faculty with five Departments, Department of Archaeology, planning to introduce new subjects such as Eastern Medicine, Doctorate of Physiotherapy, Institute of Fine Arts, Human Rights Studies and Anthropology. The challenging curriculum has been designed to integrate the diverse areas of knowledge and give you the necessary knowledge and tools to succeed in the world, while pursuing the profession of your choice and growing to be able to address the complex humanitarian, ideological, scientific and emerging challenges of the world. Our job at University of Balochistan is to help you find your passion. Your job, is to follow that passion as far as it takes you. We will be with you every step of the way.

Dear students you will always find me and my staff available to solve your problems and you have to share every moment with us

May Allah Almighty help and guide us!

Prof. Dr. Javied Iqbal
Vice Chancellor

MESSAGE OF THE PRO VICE CHANCELLOR TO STUDENTS



It gives me an immense pleasure to welcome you to the University of Balochistan campus. University of Balochistan, Quetta, is the oldest and the only general university in the province offering a wide range of high quality programs in the fields of Sciences, Arts, Humanities & Languages etc, at various levels including Honors, Masters, M.Phil and Ph.D. Most of our programs provide skills and knowledge that are applied at public, private and corporate sectors.

UoB plays an essential role in nurturing its students and impart a sense of ownership and pride in them. We have highly qualified dedicated, hardworking teachers, eager to transfer knowledge to the students of more than forty five (45) departments including institutes and centers of excellence. Our faculty members try their best to foster a culture of learning and research which endeavors to produce human resource with requisite skills to serve the community at large. We in the University of Balochistan, Quetta, apart from its excellently developed infrastructure, have state of the art laboratories, digital libraries, excess to more than eighty thousand e-books, video conference facility etc. Our regular students have access to the latest computer lab equipments in all the departments/Institutes/centers. We do provide Hostel facilities to more than two thousand enrolled male and female students.

We assure you to remain committed to provide you quality education where students will find vast opportunities to develop themselves as leaders globally in the prevailing academically and technologically challenging environment.

Prof. Dr. Mehrab Khan Pirkani
Pro Vice Chancellor

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UNIVERSITY OF BALOCHISTAN

1. Introduction

- 1.1. Establishment of the University of Balochistan synchronized with the emergence of Balochistan as a province of Pakistan. The University came into being with the promulgation of the University of Balochistan Ordinance 1970. Located in a developing region of a developing country, the University has a challenging frame of reference for its functioning. Balochistan is passing through a process of rapid socio-economic development and needs well qualified and competent scientists, professionals, academicians and administrators. The University is cognizant of this need and prepared to provide meaningful higher education to the youth of the province.
- 1.2. The University is committed to develop and sustain an environment conducive to excellence in teaching, learning, research and spread of knowledge. In keeping with the priorities of higher education, the University offers its resources and talent for enrichment and enhancement of quality of life through its programmes of research.
- 1.3. The University offers graduate, postgraduate, doctoral and advanced programmes of studies in Physical Sciences, Biological and Chemical Sciences, Arts, Humanities, Social Sciences, State Sciences and Professional Disciplines. BS four years programme of studies in certain disciplines of science are also offered by the University. Besides, University faculty and students organize and conduct community services for the well being of the people, provide leadership in all walks of life, develop potential of the students, channelize energies of the youth and strive for reducing the social and cultural differences through knowledge.

2. Our Vision

To be a model public University providing affordable quality, higher education opportunities to develop the potentially rich human resource in Balochistan through knowledge-centered teaching and research, thus advancing the prosperity of our region.

3. Our Mission

- 3.1 Help our students achieve their maximum potential and be equipped for their future careers.
- 3.2 Continue investment in our people, courses, partnerships and facilities to be the leading University in enhancing the student experience.
- 3.3 Undertake and exploit research, create new knowledge which is relevant and thus applied; achieving International Standard in Key Research areas for improving our International ranking.

4. Our Values

The following set of core values inform and sustain all of our activities.

- Putting students first, with teaching and learning as the core business.
- Team work and Synergy
- Excellence in teaching and learning willingly and with integrity.
- Innovation, creativity and professionalism.
- Respect for each other.

5. Jurisdiction

The main objective of the University is to provide facilities of higher education and research to the people of Pakistan in general and Balochistan in particular. The University fulfills the functions of teaching, research, providing affiliation to colleges and of examining body. Forty-four Colleges (Public / Private / Professional) are affiliated with the University.

6. Governance

- 6.1. The Governor of Balochistan is the Chancellor of the University. The University Senate chaired by the Chancellor, is the Supreme Governing/Legislative Body of the University.
- 6.2. The Vice Chancellor is the Chief Executive of the University. He chairs the Syndicate, the Executive Body of the University, and all other Statutory Bodies.

7. Administration

- 7.1 Chancellor
- 7.2 Vice Chancellor
- 7.3 Pro Vice Chancellor
- 7.3. Registrar
- 7.4. Treasurer
- 7.5. Controller of Examinations
- 7.6. Director General (Students Affairs)

8. Teaching Faculties

- 8.1. The University of Balochistan began functioning since March, 1971 with the opening of the Departments of Physics, Chemistry and Geology at the postgraduate level. Gradually, other Departments were introduced in Arts, Science and Humanities. At present, the University has 43 departments, two Institutes and six specialized centers of Higher Studies and Research, one constituent Law College and 44 affiliated colleges including Agriculture College, the Bolan Medical College and the Internationally renowned Command and Staff College Quetta.

9. Faculty of Students' Affairs

- 9.1. Dean Students Affairs very closely associated by DG (S.A) play the Role of Chief arbitrator in all matters concerning the students. He deals with all matters pertaining to academic / non-academic matters of the students of the University.
- 9.2. Role and duties of faculty of Students. The Faculty of Students Affairs performs duties pertaining to academic, financial, extra-curricular and miscellaneous matters in coordination with the Registrar / Heads of Departments / Deans. Its duties are as follows:
 - 9.2.1. **Academic**
 - 9.2.1.1. Admission of students under category B & C.
 - 9.2.1.2. Selection of students for other universities of the country.
 - 9.2.1.3. Migration from one department to other.
 - 9.2.1.4. Re-admission of struck off cases.
 - 9.2.1.5. Arrange meetings with the Students Advisory Council.
 - 9.2.1.6. Cases with regular Rectification Name the Certificates/Degrees seeing issue by the University.

10. Programs of Study

- | | | |
|-------|-------------------------------------|---------|
| 10.1. | BS Computer Science (BS-IT) (BS CS) | 4 years |
| 10.2. | BS Microbiology | 4 years |
| 10.3. | BS Geology | 4 years |
| 10.4. | BS Biotech/Bio Chem | 4 years |
| 10.4 | Bechelor Fine Arts | 4 years |
| 10.5 | D-Pharm | 5 years |
| 10.6 | B.Ed (Hons) | |
| 10.7 | B.Com (Self Finance Program) | 2 years |

11. Number of Seats Available

11.1. The Total number of seats in each Department/Institute/Center/ in each programme of study, including all categories of reserved seats, will be 35 (thirty five) per section. The distribution of seats in each department is as under:-

11.1.1. Local and Domicile of Balochistan - Category 'A'	30
Open merit: Balochistan	10% 03
Open merit Quetta District	15% 04
Open merit: District other than Quetta	75% 23

Category "A" Local / Domiciled Residents of Balochistan. (Applicants will submit their application forms to the respective Teaching Department).

11.1.2. **Personnel Serving in Balochistan - Category "B"**
(Non-Local & Non Domicile) Daughter/son/Spouse/Brother/Sister.

Category "B" Direct dependents (son/daughter/brother/sister/wife/husband) of the Federal Government and Autonomous organizations personnel serving in Balochistan who are non-local/non-domiciled of Balochistan.

Category "C" Nominees of AJK/FATA/Afghan Refugees/ Foreign Students/NA/Disabled Persons/Direct Dependents of University Employees/ Officers/ Teachers (Son/Daughter/Spouse/ Brother/Sister).

Applicant's coming under Category "B & C" will have to submit their application forms to the Assistant Registrar (Students Affairs) by the due date (complete in all respects).

Details of Reserved seats, under category "C":

Sr.No.	Categories	Allocation of Seats		Procedure
1.	Azad Jamu & Kashmir	Arts Faculty:	01	Applicants will be nominated by the AJK Government.
		Science Faculty	01	
2.	FATA	Bachelor's Degree Programs	05	Applications will be entertained through proper channel
3.	Foreign Students	Arts Faculty:	02	Applications to be submitted to the Economic Affairs Division and the Federal Ministry of Education Government of Pakistan through the relevant Embassy in Pakistan
		Science Faculty:	05	
4.	Afghan Refugees	Arts Faculty:	05	Applications will be entertained through proper channel (Applicants must possess Computerized NADRA Refugees Card)
		Science Faculty:	05	
5.	N.A. (Norther Area)	Arts Faculty:	01	Application to be submitted through proper channel.
		Science Faculty:	01	
6.	Direct dependents of University Teachers / Officers / Employees (Son / Daughter / Spouse / Brother / Sister)	All existing discipline Three(03) in each section/program of studies on merit amongst the applications	03	Applications to be submitted on prescribed Application Form to the Assistant Registrar (SA) as per admission schedule.
7.	Disabled Persons (Balochistan only)	Arts Faculty:	02	The disability certificate issued by Balochistan Provincial Standing Medical Board (Provincial Health Directorate has to be submitted.
		Science Faculty	02	

12. Entry Test

- 12.1. The Candidates shall have to qualify the Entry Test which will be conducted by the concern Department, securing 40% marks and appearing in the interview is compulsory for admission. If a candidate fails to appear in the Entry Test and interview on the fixed date and time, he / she will not be considered for admission applied for.

13.Determination of Merit for Admission in Graduate Program - Weightage

13.1.	Matriculation	:	20%
13.2.	Intermediate	:	50%
13.3.	Written Test/ Interview	:	30%

14. Admission Policy

- 14.1. Admissions in all disciplines running bachelor degree programs will be allowed to Local/Domicile of Balochistan (under category-“A”). However, Wards of servants of Federal Government or Autonomous Organizations, who have had their previous education other than Balochistan will be considered for admission under category “B”. Moreover, admissions against reserved seats including Foreign Students will also be entertain under Category “C”.
- 14.2. Candidates who pass the qualifying exam in Bi-annual/supplementary examination 2015 shall not be eligible for admission 2015-16.
- 14.3. Admission to a second or subsequent graduate degree course in the University is not allowed.
- 14.4. No student shall at one time join or continue on the roll of two or more courses of study, leading to two or more degrees in the same or different faculties or institutions.
- 14.5. Admission will be allowed only to those applicants who have passed the qualifying examination at most two years prior to the year of admission i.e Annual 2015/Annual/Bi-Annual 2014. However, in the disciplines where the number of applicants is less than the number of seats available in a department, relaxation of one year i.e Annual/Bi-annual 2013 can also be considered for seeking admission.

15. Admission Procedures

- 15.1. Application Forms for admission can be obtained from Habib Bank Limited, University Branch, Quetta and will be submitted (Complete in all respect in the concern department).
- 15.2. Offices of Teaching Departments shall remain open during office hours to receive admission forms.
- 15.3. Candidates seeking admission shall submit the admission form in duplicate.
- 15.4. Each applicant and his/her father/guardian shall have to sign a declaration that he/she shall abide by all the rules and regulations of the University and he/she shall devote his/her time to studies and **shall not indulge in politics.**

Required Documents

- 15.5. Four copies of recent passport size pictures duly attested.
- 15.6. Two Attested copy of character certificate from the Head of the Institution last attended. Candidates qualifying as private candidate shall produce character certificate from a Gazetted Government Officer (Grade 17 or above). (Two Photocopies)
- 15.7. Attested copy of Provisional Certificate of the last qualifying examination. (Two Photocopies)
- 15.8. Attested copy of the Detailed Marks Sheet of the last qualifying examination. (Two Photocopies)
- 15.9. Attested copy of Local/Domicile Certificate. (Two Photocopies)
- 15.10. Attested copies Matric certificates. (Two Photocopies)
- 15.11. Original documents will be shown at the time of Interview and will be checked by the Chairperson/Admission Committee of the concerned department.
- 15.12. Candidates having qualified from other Boards/Universities shall have to submit, in addition to the above, a migration certificate (in original) from the concerned Board/ University.
- 15.13. Applicants must collect an acknowledgment receipt, for each application, which must be produced at the time of Test/Interview. Process of admission will be completed within prescribed schedule as announced.
- 15.14. The selected candidates will be required to complete the admission formalities by last date announced by the University.
- 15.15. If a candidate fails to make payment of admission dues by last date, his/her seat will stand cancelled.
- 15.16. If a candidate fails to join the department within fifteen days from the date of admission his / her admission will stand cancelled.
- 15.17. List of selected candidates will be displayed on the Notice Board of concerned Department/Institute/Center on the dates announced in the academic calendar. The candidates may check the Notice Board of the respective Department/Institute/Center during admission process.
- 15.18. Candidates will not be informed individually about their provisional admission/withdrawal or cancellation of admission and the University, therefore, will not accept any responsibility in this regard.

16. Attendance Requirements

- 16.1. Attendance of Lectures, Practicals, tutorials and field work, is compulsory for all students.
- 16.2. The name of a student, who remains absent from classes without proper leave for a period of fifteen consecutive days, shall be struck off the rolls of that department.
- 16.3. A student, whose name has been struck off the rolls, may be readmitted for valid reason within two weeks during the same academic year to the same class. This readmission will, however, be allowed by the respective Dean on the recommendation of the Chairperson of the Department. Fee for readmission will be Rs.1000/-. If a student fails to apply for readmission within the stipulated period, then he/she will be given two more weeks to apply readmission to the Academic Committee headed by the Dean Students Affairs. In such a case the readmission fee will be Rs. 2000/-. The Central Admission Committee (CAC) headed by the Pro-Vice Chancellor can allow readmission up to two months (60 days) in such a case the readmission fee will be Rs. 3000/-.
- 16.4. **Each student will be required to complete minimum of 75% of attendance in lectures and practicals to be eligible to appear in examinations that year.**

17. Students Code of Conduct-Discipline

- 17.1. No Student shall:
 - 17.1.1. Do, or propagate, anything repugnant to Islam within and outside the precincts of the University.
 - 17.1.2. Say or do anything which might adversely affect the honour and prestige of Pakistan.
 - 17.1.3. Smoke in the classroom, laboratory, workshop, library and examination hall.
 - 17.1.4. Form or associate himself / herself with an organization / society / club or any other body promoting inciting parochial / linguistic/regional feelings.
 - 17.1.5. Organize or hold any function in the University except in accordance with the prescribed rules/regulations.
 - 17.1.6. Collect money, receive donations or pecuniary assistance for or on behalf of the University or any University Organization except with the written permission of the Vice Chancellor.
 - 17.1.7. Stage, incite, or participate in a walkout, strike or any other form of agitation which might create, or is likely to create, law and order problem for the University and affect, or is likely to affect, its smooth functioning.
 - 17.1.8. Indulge in immoral activities, use indecent language, wear immodest dress, make indecent remarks, jokes or gestures or behave in an improper manner.
 - 17.1.9. Cause disturbance to others.
 - 17.1.10. Disturb the peace and tranquility of the Institution.
 - 17.1.11. Keep or carry weapons, narcotics, immoral or subversive literature and use non-salutary or abusive language or resort to violence against fellow student or employee of the University.
- 17.2. Violation of any of the above will be considered misconduct and liable to disciplinary action.
- 17.3. **Disciplinary Action**
 - 17.3.1. Disciplinary action by the Principal of a Constituent /Affiliated College/Chairperson of the University Teaching Department/ Director of an Institute/Center and the Discipline Committee against the student(s) may be taken in one or more of the following forms depending upon the severity of the offence:
 - 17.3.1.1. A student may be fined.

- 17.3.1.2. A student may be placed on probation for a fixed period. If during the period of probation he/she fails to improve his/her conduct, he/she may be rusticated or expelled.
- 17.3.1.3. A student may be suspended from the rolls of a College / Institute / Center / Department for a period not exceeding two weeks at a time.
- 17.3.2. A student may be rusticated / expelled or asked to withdraw from the College/Institute/Center/Department in the manner mentioned in the regulations relating to rustication, expulsion and withdrawal.

19. Regulations Relating to Rustication, Expulsion and Withdrawal

- 19.1. Rustication, whenever imposed on a student, shall always mean the loss of one academic year so far as his/her Examinations are concerned. The period of absence will, however, depend upon the time of the year when the penalty is imposed.
- 19.2. The Vice Chancellor may, at his discretion, permit to rejoin the class in the same College/Department/Institute/Center at the beginning of the next academic year.
- 19.3. A rusticated student once readmitted and again found creating disturbance/indiscipline, etc. will be expelled from the University.
- 19.4. A student expelled from the University shall not be readmitted into the same University without the approval of the Syndicate. Readmission shall in no case be granted before the expiry of one academic year from the date of expulsion.

20. Code of Honor

Being a student in the University is a matter of privilege, prestige and honour. All students are expected to conduct themselves with honor and dignity. The following Code of Honour enunciating the basic principles of conduct expected of a student should be propagated by the Principals of the Constituent Colleges and the Chairperson/Director of the University Teaching Departments / Institute / Centers:-

- 20.1. All Students must have faith in and respect for the ideology of Pakistan.
- 20.2. All Students must in matters of religion respect the convictions of others.
- 20.3. Every student is expected to:-
 - 20.3.1. Be Loyal to Pakistan;
 - 20.3.2. Obey the Law of the land as well as the rules & regulations of the University;
 - 20.3.3. Maintain law and order as well as the dignity and prestige of the University.
 - 20.3.4. Protect the property of the University;
 - 20.3.5. Show due respect to elders, teachers and outside visitors;
 - 20.3.6. Work hard and co-operate in completing the courses of study within the prescribed period.

21. Facilities

- 21.1. **Central Library** which plays a vital role in the academic life of a University. The fundamental role of the library being educational, it should not be considered as mere store house of books, but as a dynamic instrument of education. The Central Library of the University is organized on these lines. The library collections support not only every course in the curriculum but also include selected stock of general material of books, periodicals, publications, newspapers etc. The total number of books in the Central Library is 150,000. The whole library system is being computerized and online library service will be available through a network after the completion of the computerization process. A large number of International Research Journals are also available on Digital Library provided by Higher Education Commission and research articles of interest can also be downloaded.

- 21.2. **Digital Library** The University of Balochistan has established a digital library to provide researchers, faculty members and students of the University access to the International scholarly literature. The facility is based on electronic (online) delivery system. The Digital Library also provides access to high quality peer-reviewed journals database and articles on a wide range of discipline. The facility could be availed by the faculty members and students of the University on provision of his/her identification card. The facility is restricted to online journals for the University of Balochistan through University of Balochistan website i.e. www.uob.edu.pk.
- 21.3. The internet connectivity and link to Digital Library provided by the Information Technology Directorate has access to over 4,000 books and 22,000 online journals. For maximum utilization of Digital Libraries all over the World, the Directorate of Information Technology has established a Computer Lab in the Central Library and ensured its operation during University working hours, so that the students may benefit from it. This all has become possible due to the high speed connectivity of PERN (Pakistan Educational Research Network). The number of Computer Units in the digital library has been increased to 80.
- 21.4. **Computer Laboratories.** Computers have been provided to the Departmental Computer Laboratories. This service is provided to the Central Library and to the Academic Departments/Institutes/Centers and available over long hours. In the Central Labs, PCs are provided, offering a range of standard office software for document creation and presentations. Specialist provision is available to support research and advanced study within the University. Computers in all departments / institutes / centers / sections are connected to the University's main server through Local Area Network and Wide Area Network (LAN/WAN) giving access via the internet to the major information, research and communications networks worldwide.
- 21.5. **Video Conference Center** The University of Balochistan with the help of Higher Education Commission has established a Video Conferencing Center. The main objective of this Video Conference is to enhance student-teacher interaction through distance learning at global-level, bridge the gap of good faculty, meet the shortage of faculty members at the University and ultimately to uplift the standard of education in Balochistan.
- 21.6. **Hostels** There are 15 double storey blocks of hostels on the Campus for male students with a total capacity for 1040 residents, while one block under construction is now complete with a capacity of 260 students. For female students and Lady Teachers, there is a hostel block with 64 rooms to accommodate 210 inmates. The students' hostels have all the facilities e.g. Furniture, Mess, Common Room, T.V. Lounge, Telephone etc. Hostel administration consists of Senior Provost, Provosts, Senior Warden, and one Resident Warden for each hostel.
- 21.7. **Medical Center / Health Care** A Medical Centre for meeting the needs of the community is functioning. It is reasonably equipped, looked after by two doctors (Male and Female) and assisted by qualified staff at the Campus. Complicated cases are referred to the specialists in the Civil Hospital, B.M.C. Complex, C.M.H. and Children Hospital. Ambulance service is also available in case of emergency.
- 21.8. **Bank and Post Office** A branch of Habib Bank and Post Office are available with in the premises of the University.
- 21.9. **Transport** The University of Balochistan operates a fleet of buses which provide Pick and Drop facility to the students. Transport facility is also available for social-work field work and field visits of students of Geology, Botany, Zoology and other departments on need basis.
- 21.10. **Study Tour** Students Study Tours are considered educational as well as part of the University's co-curricular activities. Each student may participate at least once in a study tour arranged by the concerned Teaching Department during his/her stay at the University. Study tours are partly financed by the students and supplemented by the University.

21.11. **Co-Curricular Activities**

21.11.1. **Golden Week.**

21.11.1.1. The University places due emphasis on co-curricular activities to ensure overall grooming of the personality of its students. Co-Curricular activities form an integral part of the University's endeavors to provide its students an opportunity to build up skills and gain experience in so many fields.

21.11.1.2. By encouraging its students to participate in co-curricular activities the University makes a conscious effort to also build and strengthen their confidence required to meet the challenges of practical life effectively.

21.11.1.3. Dramatics, Debate competitions, Art exhibitions, Poetry writing Competitions, Quiz Competitions, Dialogues and Essay Writing Competitions are some of the co-curricular activities that are managed by the University during the Golden Week.

21.11.2. **Sports Week** Special endeavors are made to organize games and sports on the campus. There are well established play grounds for football, cricket, basketball, volleyball and Tennis. The students have been participating in the National, Provincial and Inter- University tournaments and have won many prizes. The University organizes regular activities in a number of sports and games. It also arranges Inter-University sports competitions in Athletics, Football, Hockey, Volley Ball, Cricket, Badminton, Table Tennis, Tug of War, Basket Ball etc. Separate sports facilities exist for girls. The sports activities are looked after by the Director of Sports.

21.12. **Audio Visual Aids** Audio-visual aids are used in the class rooms, seminars and conferences to facilitate the students learning process.

21.13. **Tutorial and Guidance** Tutorial and Guidance service is available to the University students. The Tutors Facilitates the learning process of the students and enable them to make positive use of the educational facilities available in the University. The faculty members provide guidance and counseling to the students in the establishment of their educational and professional goals. During the course of studies, the Tutors keep in touch with the progress and development of the students and help to solve some of the individual psychosocial problems which are likely to obstruct their academic performance.

21.14. **Career Counseling Cell** A Career Counseling Cell exists to guide the students for their future career/jobs. It helps the students to establish and achieve their vocational goals and solve some of their individual queries. It also arranges lectures/presentations by future employers.

AFFIDAVIT SPECIMEN

Category B

(Balochistan Non-local / Non-domiciled Applicants who are
Direct dependents of personnel serving in Balochistan
(Son/Daughter, Brother /Sister, Husband/Wife)

(to be submitted on judicial stamp paper along with attested Photostat/ copies of N.I.C. of the applicant and the deponent)

Applicant: _____

Father : _____

N.I.C. No of Applicant: _____

Address: _____

The deponent declares on oath / solemn affirmation that the
Applicant _____ S/O _____
seeking admission in the _____ Department of
University of Balochistan, Quetta is my:

(a) Son/Daughter: (b) Real Brother / Real Sister (C). Husband / Wife

The deponent swears / solemnly affirms that the above said declaration submitted is true and that it conceals nothing and that no part of it is false.

Deponent.

Name. _____
Designation _____
Father. _____
N.I.C. No. _____

CERTIFICATION

It is certified that Mr. Miss/Mrs. _____ S/D/W/O _____ is
an employee of _____ Designation _____
_____ and at present serving in the province of Balochistan from

Attested by:
Magistrate/Oath Commissioner

Signature
Head of the Organization
(Name & Stamp)

Name: _____
Designation: _____

Category C

Affidavit Specimen

(To be submitted by the University Teacher / Staff / Employee on
Judicial stamp paper along with the photostate copies of the
CNIC of the applicant and the deponent.)

Applicant : _____
Father : _____
CNIC No. : _____
Address : _____

I. The deponent declares on oath /solemn affirmation that the applicant _____
seeking admission in the Department of _____ University of Balochistan, Quetta is my:

- (a) Son / Daughter (b) Real Brother/Real Sister (c) Husband/Wife
II. The deponent swears / solemnly affirms that the abovesaid declaration submitted is true
and that it conceals nothing and that no part of it is false.

DEPONENT

Name: _____

Designation: _____

CNIC No.: _____

CERTIFICATE

It is certified that Mr. Miss / Mrs. _____ S/D/W/O _____ is

An employee of _____ designation _____ and at

present serving in the deptt/ section _____ of Balochistan.

**Signature
Head of Deptt
(Name & Stamp)**

Name: _____

Designation _____

Magistrate / Oath Commissioner

UNDERTAKING BY THE STUDENT

(To be submitted on judicial stamp paper)

(As per order of the Supreme Court of Pakistan dated 1st July 92)

I am seeking admission in the University of Balochistan, Quetta do hereby undertake that while studying in the University I will not indulge in any sort of politics. And if ever during my studentship I am found indulging in politics, I may be expelled from the University without any notice.

Signature of the applicant

UNDERTAKING BY THE PARENT / GUARDIAN

(This undertaking is also to be submitted on Judicial stamp paper separately)

(As per order of the Supreme Court of Pakistan dated 1st July, 92)

I _____ Parent/Guardian of _____ who is seeking admission in the University of Balochistan, Quetta do hereby undertake that while studying in the University he/she shall not indulge in any sort of politics. And if ever during the studentship is found indulging in politics, he/she can be expelled from the University without any notice.

I also undertake that the findings with regard to his/her indulgence in politics given by the competent authority of the University under his seal and signature shall be final and shall not be questioned except only before the Supreme Court of Pakistan.

Date: _____

Signature of the Parent /Guardian

(UNDERTAKING BY THE CANDIDATE)

(To be signed by the student at the time of admission in the Educational Institutions) I solemnly undertake that:

- I. i. I am not enrolled at present in any of the University teaching Department / Institute / Centers / affiliated College.
 - II. I shall make one person literate so that he she will be able to:
 - ii. Write his / her name.
 - iii. Make Simple calculations.
 - iv. Read and write a simple statement
- OR
- Read and writ Qurani Quaida e.g “Yassarnal Quran”

Signature of the Candidate.

N.B. FOR FURTHER INSTRUCTIONS PLEASE SEE EXTRACTS OF ADMISSION RULES.

CODE OF CONDUCT

1. **I solemnly undertake to abide by the following Code of Conduct:**

- 1.1. That during my stay in the University, I shall diligently apply myself to acquire and develop the knowledge, skills and attitudes necessary for the practice and advancement of the field of study in which I will be enrolled.
- 1.2. That I shall participate fully and whole-heartedly in sports, games and other co-curricular activities.
- 1.3. I shall have minimum attendance of 75% in order to qualify for the examinations.
- 1.4. That I shall maintain identity as a student of the University by wearing the gown or badge as may be prescribed by the University.
- 1.5. That I shall never use violence or threat of violence or other sort of pressures in resolving any dispute. I shall only use logic, persuasion, petition, appeal, revision, review and other legal and peaceful methods for the settlement of differences and disputes.
- 1.6. That in any conflict or disputes if any with fellow students or teachers or employees of the University. I shall accept the judgment of the authorities constituted by the University.
- 1.7. That I accept all provision of the statutes, regulations and rules of the University or the statutes, regulations and rules as may hereafter be framed by the appropriate authorities of the University.
- 1.8. I will deposit my admission fee after declaration of admission, if I fail to do so, my admission if cancelled, i will have no right to claim of it.

2. **Further I undertake to refrain from:-**

- 2.1. Doing anything which may cause insult to Head of the Institution, teachers, officers and other staff of the institution.
- 2.2. Holding a gathering, or meeting, or taking out processions in any part of the University Campus other than areas specified for the purpose, and with due permission.
- 2.3. Indulging in any kind of unfair means, malpractices in examinations and coercion by any means.
- 2.4. Allowing or abetting the entry into the premises of the University of expelled students, antisocial elements or other groups whose presence on the campus could cause conflict amongst the students.
- 2.5. Bringing into the campus, consuming or encouraging consumption of alcoholic products, drugs and narcotics, and indulging in acts of moral turpitude.
- 2.6. Bringing or keeping any type of weapons within the University premises.
- 2.7. Using or occupying any room or part of any building of the institution without lawful authority.
- 2.8. Damaging any University property including buildings, equipments, vehicles etc. in any manner.
- 2.9. From all such acts and deeds as might bring disgrace and bad name to the University.

Countersigned by Parents / Guardians)

(Signature of the Candidate)

FEE STRUCTURE OF VARIOUS COURSES OF STUDIES FOR 2015 ADMISSION

<p>Fine Arts (4 years)</p> <p>Total Dues Rs. 53,588</p>	<p>1st Year.</p> <p>i) <u>Adm. Fee.</u> Rs. 1725/- ii) <u>Tuition Fee.</u> Rs. 4140/- iii) <u>Security Money</u> <u>Non Refundable.</u> Rs. 518/- iv) <u>Identity Card.</u> Rs. 87/- v) <u>Sports Fee.</u> Rs. 865/- vi) <u>Transport Fee.</u> Rs. 1380/- vii) <u>Library Fee.</u> Rs. 518/- viii) <u>Student Cultural</u> <u>Activities.</u> Rs. 259/- ix) <u>Field Work.</u> Rs. 690/- x) <u>Studio Work.</u> Rs. 3105/- xi) <u>Library Fee</u> <u>50% (Refundable)</u> Rs. 2000/-</p> <p style="text-align: right;">Total: Rs. 15,287/-</p>	<p>2nd, 3rd & 4th per Year.</p> <p>i) <u>Adm. Fee.</u> Rs. 1725/- ii) <u>Tuition Fee.</u> Rs. 4140/- iii) <u>Security Money</u> <u>Non Refundable.</u> ----- iv) <u>Identity Card.</u> Rs. 87/- v) <u>Student Cultural</u> Rs. 259/- vi) <u>Sports Fee.</u> Rs. 863/- vii) <u>Transport Fee.</u> Rs. 1380/- viii) <u>Library Fee.</u> Rs. 518/- ix) <u>Field Work.</u> Rs. 690/- x) <u>Studio Work.</u> Rs. 3105/- xi) <u>Library Fee</u> <u>50% (Refundable)</u> -----</p> <p style="text-align: right;">Total: Rs. 12,767/-</p>
<p>Computer Sc:- BS(C.S/IT) Four Year Program</p> <p>Total Dues for 4 Year Rs. 119,080/-</p>	<p>1st & 2nd Semesters</p> <p>i) <u>Adm. Fee.</u> Rs. 1725/- ii) <u>Tuition Fee.</u> Rs. 17,538/- iii) <u>Identity Card.</u> Rs. 87/- iv) <u>Student Cultural.</u> Rs. 259/- v) <u>Sports Fee.</u> Rs. 863/- vi) <u>Transport Fee.</u> Rs. 1380/- vii) <u>Computer</u> <u>Laboratory Fee.</u> Rs. 1150/- viii) <u>Library Fee.</u> Rs. 518/- ix) <u>Departmental</u> <u>Hardware Fee.</u> Rs. 6900/- x) <u>Library Security</u> <u>50% (Refundable)</u> Rs. 2000/- xi) <u>Examination Fee.</u> Rs. 4025/-</p> <p style="text-align: right;">Total: Rs. 36,445/-</p>	<p>Per Two Semesters 3rd & 4th/ 5th & 6th/ 7th & 8th</p> <p>i) <u>Adm. Fee.</u> Rs. 1725/- ii) <u>Tuition Fee.</u> Rs. 17,538/- iii) <u>Identity Card.</u> Rs. 87/- iv) <u>Student Cultural.</u> Rs. 259/- v) <u>Sports Fee.</u> Rs. 863/- vi) <u>Transport Fee.</u> Rs. 1380/- vii) <u>Computer</u> <u>Laboratory Fee.</u> Rs. 1150/- viii) <u>Library Fee.</u> Rs. 518/- ix) <u>Departmental</u> <u>Hardware Fee.</u> ----- x) <u>Library Security</u> <u>50% (Refundable)</u> ----- xi) <u>Examination Fee.</u> Rs. 4025/-</p> <p style="text-align: right;">Total: Rs. 27,545/-</p>
<p>B.Ed. (Hons) (8th Semesters) Four Year Program</p> <p>Total Dues for 4 Year Rs. 79,228/-</p>	<p>1st & 2nd Semester</p> <p>i) <u>Adm. Fee.</u> Rs. 805/- ii) <u>Tuition Fee.</u> Rs. 4594/- iii) <u>Identity Card.</u> Rs. 58/- iv) <u>Student Cultural.</u> Rs. 460/- v) <u>Sports Fee.</u> Rs. 1226/- vi) <u>Transport Fee.</u> Rs. 2144/- vii) <u>Computer Lab Fee.</u> Rs. 3006/- viii) <u>Library Fee.</u> Rs. 920/- ix) <u>Library Security</u> <u>50% (Refundable)</u> Rs. 2000/- x) <u>Examination Fee.</u> Rs. 4594/-</p> <p style="text-align: right;">Total: Rs. 19,807/-</p>	<p>Per Two Semesters 3rd & 4th/ 5th & 6th/ 7th & 8th</p> <p>i) <u>Adm. Fee.</u> Rs. 805/- ii) <u>Tuition Fee.</u> Rs. 4594/- iii) <u>Identity Card.</u> Rs. 58/- iv) <u>Student Cultural.</u> Rs. 460/- v) <u>Sports Fee.</u> Rs. 1226/- vi) <u>Transport Fee.</u> Rs. 2144/- vii) <u>Computer Lab Fee.</u> Rs. 3006/- viii) <u>Library Fee.</u> Rs. 920/- ix) <u>Library Security</u> <u>50% (Refundable)</u> Rs. 2000/- x) <u>Examination Fee.</u> Rs. 4594/-</p> <p style="text-align: right;">Total: Rs. 19,807/-</p>

Pharm-D (5 years) Doctor of Physical Therapy (DPT) (5 years) Bachelor of Eastern Medicine & Surgery (B.E.M.S.) (5 years) Total Dues for 5 Year <u>Rs. 89,240/-</u>	<u>1st Year:</u> i) <u>Adm: Fee.</u> Rs. 2200/- ii) <u>Tuition Fee.</u> Rs. 5500/- iii) <u>Security Money</u> (Non Refundable). Rs. 440/- iv) <u>Identity Card.</u> Rs. 66/- v) <u>Student Cultural</u> Rs. 198/- vi) <u>Sports Fee.</u> Rs. 600/- vii) <u>Computer Lab Fee.</u> Rs. 2200/- viii) <u>Transport Fee.</u> Rs. 1100/- ix) <u>Field Work.</u> Rs. 2900/- x) <u>Library Fee.</u> Rs. 396/- xi) <u>Laboratory Fee.</u> Rs. 2200/- xii) <u>Library Security</u> 50% (Refundable) Rs. 2000/- Total: Rs. 19,800/-	<u>2nd, 3rd, 4th & 5th per Year:</u> i) <u>Adm: Fee.</u> Rs. 2200/- ii) <u>Tuition Fee.</u> Rs. 5500/- iii) <u>Security Money</u> (Non Refundable). ---- iv) <u>Identity Card.</u> Rs. 66/- v) <u>Student Cultural</u> Rs. 198/- vi) <u>Sports Fee.</u> Rs. 600/- vii) <u>Computer Lab Fee.</u> Rs. 2200/- viii) <u>Transport Fee.</u> Rs. 1100/- ix) <u>Field Work.</u> Rs. 2900/- x) <u>Library Fee.</u> Rs. 396/- xi) <u>Laboratory Fee.</u> Rs. 2200/- xii) <u>Library Security</u> 50% (Refundable) ---- Total: Rs. 17,360/-
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BS Geology Four Year Program Total Dues for 4 Year <u>Rs. 1,17,641/-</u>	<u>1st Year</u> i) <u>Adm: Fee.</u> Rs. 2645/- ii) <u>Tuition Fee.</u> Rs. 7245/- iii) <u>Security Money</u> (Non Refundable). Rs. 518/- iv) <u>Identity Card.</u> Rs. 87/- v) <u>Student Cultural Activities.</u> Rs. 259/- vi) <u>Laboratory Fee.</u> Rs. 1725/- vii) <u>Transport Fee.</u> Rs. 1380/- viii) <u>Field Fee.</u> Rs. 3450/- ix) <u>Library Fee.</u> Rs. 518/- x) <u>Computer Lab:</u> Rs. 4140/- xi) <u>Library Security</u> 50% (Refundable) Rs. 2000/- xii) <u>50% (Refundable)</u> Rs. 2000/- xiii) <u>Examination Fee</u> Rs. 6038/- Total: Rs. 30005/-	<u>2nd, 3rd & 4th Per Year</u> i) <u>Adm: Fee.</u> Rs. 2645/- ii) <u>Tuition Fee.</u> Rs. 7245/- iii) <u>Identity Card.</u> Rs. 87/- iv) <u>Student Cultural Activities.</u> Rs. 259/- v) <u>Sports Fee.</u> Rs. 1725/- vi) <u>Laboratory Fee.</u> Rs. 1725/- vii) <u>Transport Fee.</u> Rs. 1380/- viii) <u>Field Work</u> Rs. 3450/- ix) <u>Library Fee.</u> Rs. 518/- x) <u>Computer Lab:</u> Rs. 4140/- xi) <u>Library Security</u> 50% (Refundable) ---- xii) <u>Examination Fee</u> Rs. 6038/- Total: Rs. 29,212/-
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Microbiology BS 4 Year Program Total Dues for 4 Year <u>Rs. 1,17,641/-</u>	<u>1st & 2nd Semester</u> i) <u>Adm: Fee.</u> Rs. 2645/- ii) <u>Tuition Fee.</u> Rs. 7245/- iii) <u>Security Money</u> (Non Refundable). Rs. 518/- iv) <u>Identity Card.</u> Rs. 87/- v) <u>Student Cultural Activities.</u> Rs. 259/- vi) <u>Laboratory Fee.</u> Rs. 1725/- vii) <u>Transport Fee.</u> Rs. 1380/- viii) <u>Field Fee.</u> Rs. 3450/- ix) <u>Library Fee.</u> Rs. 518/- x) <u>Computer Lab:</u> Rs. 4140/- xi) <u>Library Security</u> 50% (Refundable) Rs. 2000/- xii) <u>50% (Refundable)</u> Rs. 2000/- xiii) <u>Examination Fee</u> Rs. 6038/- Total: Rs. 30005/-	<u>Per Two Semesters</u> <u>3rd & 4th/ 5th & 6th/ 7th & 8th</u> i) <u>Adm: Fee.</u> Rs. 2645/- ii) <u>Tuition Fee.</u> Rs. 7245/- iii) <u>Identity Card.</u> Rs. 87/- iv) <u>Student Cultural Activities.</u> Rs. 259/- v) <u>Sports Fee.</u> Rs. 1725/- vi) <u>Laboratory Fee.</u> Rs. 1725/- vii) <u>Transport Fee.</u> Rs. 1380/- viii) <u>Field Fee.</u> Rs. 3450/- ix) <u>Library Fee.</u> Rs. 518/- x) <u>Computer Lab:</u> Rs. 4140/- xi) <u>Library Security</u> 50% (Refundable) ---- xii) <u>Examination Fee</u> Rs. 6038/- Total: Rs. 29,212/-
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Bio Technology BS 4 Year Program	1st Year i) <u>Adm: Fee.</u> Rs. 2645/- ii) <u>Tuition Fee.</u> Rs. 7245/- iii) <u>Security Money (Non Refundable).</u> Rs. 518/- iv) <u>Identity Card.</u> Rs. 87/- v) <u>Student Cultural Activities.</u> Rs. 259/- vi) <u>Laboratory Fee.</u> Rs. 1725/- vii) <u>Transport Fee.</u> Rs. 1380/- viii) <u>Field Fee.</u> Rs. 3450/- ix) <u>Library Fee.</u> Rs. 518/- x) <u>Computer Lab:</u> Rs. 4140/- xi) <u>Library Security</u> xii) <u>50% (Refundable)</u> Rs. 2000/- xiii) <u>Examination Fee</u> Rs. 6038/- Total: Rs. 30005/-	2nd, 3rd & 4th Per Year i) <u>Adm: Fee.</u> Rs. 2645/- ii) <u>Tuition Fee.</u> Rs. 7245/- iii) <u>Identity Card.</u> Rs. 87/- iv) <u>Student Cultural Activities.</u> Rs. 259/- v) <u>Sports Fee.</u> Rs. 1725/- vi) <u>Laboratory Fee.</u> Rs. 1725/- vii) <u>Transport Fee.</u> Rs. 1380/- viii) <u>Field Work</u> Rs. 3450/- ix) <u>Library Fee.</u> Rs. 518/- x) <u>Computer Lab:</u> Rs. 4140/- xi) <u>Library Security</u> xii) <u>50% (Refundable)</u> ----- <u>Examination Fee</u> Rs. 6038/- Total: Rs. 29,212/-
	Bio Chemistry BS 4 Year Program Total Dues for 4 Year <u>Rs. 1,17,641/-</u>	

B.com 2 Year Program Total Dues for 2 Year <u>Rs. 19,772/-</u>	1st Year I) <u>Adm: Fee.</u> Rs. 1725/- ii) <u>Tuition Fee.</u> Rs. 3105/- iii) <u>Security Money (Non Refundable).</u> Rs. 518/- iv) <u>Identity Card.</u> Rs. 87/- v) <u>Student Cultural Activities.</u> Rs. 259/- vi) <u>Sports</u> Rs. 863/- vii) <u>Transport Fee.</u> Rs. 1380/- viii) <u>Field Fee.</u> Rs. 690/- ix) <u>Library Fee.</u> Rs. 518/- x) <u>Library Security</u> <u>50% (Refundable)</u> Rs. 2000/- Total: Rs. 11,145/-	Final Year I) <u>Adm: Fee.</u> Rs. 1725/- ii) <u>Tuition Fee.</u> Rs. 3105/- iii) <u>Security Money (Non Refundable).</u> ----- iv) <u>Identity Card.</u> Rs. 87/- v) <u>Student Cultural Activities.</u> Rs. 259/- vi) <u>Sports</u> Rs. 863/- vii) <u>Transport Fee.</u> Rs. 1380/- viii) <u>Field Fee.</u> Rs. 690/- ix) <u>Library Fee.</u> Rs. 518/- x) <u>Library Security</u> <u>50% (Refundable)</u> ----- Total: Rs. 8627/-
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- Note:-** i). Hostel Room Rent FOR Regular Students. Rs. 3000/- per Year.
 ii). Hostel Room Rent for Self Finances @ Rs. 2300/- Per Month, **Rs. 27,600/-** Per Year.

Note:- All fee may be deposited after declaration of admission with in the stipulated time. If a candidate failed to deposit the fee his/her admission will stand cancelled and the student at the top of the waiting list will be considered for admission, he/she will be allowed to deposit the fee as prescribed.
 As per University Policy admission etc dues will be increased each year. Which is liable to be paid by each student accordingly.

*****Fee deposited in previous will be increased 10% in final year.****

Faculty of Life Sciences

1). BS. (Bio Tech/ Bio-Chemistry)

4 years

2). BS. (Microbiology)

4 years





INSTITUTE OF BIOCHEMISTRY

1. Introduction

- 1.1. The Institute of Biochemistry, was established in 1986 initially as a research Institute entertaining only M.Phil/ Ph.D students. Later in 1961 M.Sc Program in Biochemistry was started. In 2006, BS (4 years) program in Biochemistry and Biotechnology was also started.
- 1.2. Biochemistry seeks to understand & explain living systems at the molecular level. It is a scientific discipline that finds applications across the biomedical & biological sciences & underpins the biotechnology revolution. It is developing at a rapid pace and has become an exciting and challenging subject.
- 1.3. Biochemistry tries to answer questions that are fundamental to life. What are the molecules that constitute living organisms? How are they made and how is their synthesis regulated? How are they organized into cells? how they interact with each other and how is their synthesis regulated? What is the molecular basis of such processes as genetic inheritance, immunological recognition of self and non-self? What goes wrong to cause human diseases such as cancer, heart attacks, Alzheimer and diabetes and how can such errors be corrected? This knowledge finds practical applications in medicine, agriculture, brewing and biotechnology. Biochemists devise new ways of diagnosing and treating human, animal and plant diseases.

2. Objectives

- 2.1. To prepare graduates in modern biological science such as Biochemistry/ Biotechnology who are able to make a valuable beginning in many different careers in their practical life.
- 2.2. To emphasis on research program exploring variety of technically feasible projects having socioeconomic importance, so as to be on the front line in solving our own problems in the area of biological sciences.
- 2.3. To provide educational programs which encourage students to think creatively, constructively and to communicate their ideas effectively.
- 2.4. To foster an environment that promotes learning through quality teaching and research while encouraging mutual respect, tolerance and sensitivity.
- 2.5. To provide qualified and focused professionals in the subject of Bio Chemistry to meet the future needs of educational institutes and industry.
- 2.6. To prepare researchers to meet the needs of industry and research organizations, science and technology.

3. Vocational Job Opportunities/Marketability of Graduates

- 3.1. Pharmaceutical /food industries.
- 3.2. Public/Private research Institutes/centers relating to medical and agriculture
- 3.3. Educational Institutions-College/University level.
- 3.4. Balochistan at present has become an active of socio-economic field. It is expanding its infrastructure and encourages development of industry. Numerous Food & Pharmaceutical Industries are recently established in Hub. The PCSIR laboratory in Quetta is currently being expanded creating new job opportunities. In the teaching sector, a number of new Universities and Colleges in Balochistan are offering opportunities to Biochemistry graduates. At National level also, research in Biomedical Sciences is attracting attention.

4. Faculty

- 4.1. The Institute has two main functioning units i.e Biochemistry and Biotechnology. In addition to this there are two units i.e Analytical Biochemistry and Bioorganic Chemistry to support the main units. The faculty of the Institute of Biochemistry is highly qualified and experienced. Details are given below.

S.No	Name	Designation	Qualification	Field of Specialization
(a)	(b)	(c)	(d)	(e)
1	Prof. Dr. M. Anwer Panazai	Professor Director	Ph.D. (UOB)	Biochemistry
2	Dr. Muhammad Azam	Associate Professor <i>(on Extra ordinary Leave)</i>	Ph.D. (UK)	Polymers Science
3	Dr. Zahid Mehmood	Assistant Professor	Ph.D. (UOB)	Biochemistry
4	Mr. Khalid Mehmood	Assistant Professor	M.Phil.(UOB)	Biochemistry
5	Mr. M. Sharif Jamali	Lecturer	M.Sc. (QAU)	Biochemistry
6	Dr. Ashif Sajjad	Assistant Professor	Ph.D. (Italy)	Biochemistry
7	Mr. Mohammad Hashim Jan	Lecturer	M.Sc. (UOB)	Biochemistry
8	Dr. Mohammad Ayub	Assistant Professor	Ph.D. (UOB)	Molecular Biology / Biochemistry
9	Mr. Noor Hassan	Lecturer <i>(on Study Leave)</i>	M.Sc. (UOB)	Biochemistry
10	Dr. Samira Khaliq	Lecturer	Ph.D. (UK)	Biochemistry
11	Ms. Shahida Hussain	Lecturer <i>(on Study Leave)</i>	M.Sc (QAU)	Biochemistry
12	Mr. Sharif Hasni	Lecturer <i>(on Study Leave)</i>	M.S Sweden	Biochemistry
13	Mr. Zia-ur-Rehman	Lecturer <i>(on Study Leave)</i>	M.S (AIT) Thailand	Biochemistry
14	Dr. Imran Ali	Assistant Professor	Ph.D. (AIT) Thailand	Biochemistry
15	Mrs. Pari Gul	Lectuer <i>(on Study Leave)</i>	M.Sc (UOB)	Biochemistry
16	Mr. Aamir Rasool	Lecturer <i>(on Study Leave)</i>	M.Sc University of Karachi	Biochemistry

5. Programs of Study

5.1. BS(4 YEARS) IN BIOCHEMISTRY & BIOTECHNOLOGY:

This comprises 8 semesters (4 years) with a total of 126 credit hours. In the first 4 semesters, Chemistry & Microbiology are taught as minor subjects. In the 4th year i.e in semester VII, students are given the choice to either opt for specialization in Biochemistry or Biotechnology.

6. Description of Courses

6.1. B. S (4 years) in Biochemistry/Biotechnology

6.1.1. First Year

Paper #	Subjects	Marks	Practicals	Marks
Paper-I	Biochemistry	75 Marks	Biochemistry Lab.	25
Paper-II	Chemistry	75 Marks	Chemistry Lab.	25
Paper-III	Microbiology	75 Marks	Microbiology Lab.	25
Paper-IV	English-I (Functional)	50 Marks		
Paper-V	Islamic Studies	50 Marks		
Total:		325 Marks	Total:	75 Marks

First year Total Marks: 400

6.1.2. Second Year.

Paper #	Subjects	Marks	Practicals	Marks
Paper-I	Biochemistry	75 Marks	Biochemistry Lab.	25
Paper-II	Chemistry	75 Marks	Chemistry Lab.	25
Paper-III	Microbiology	75 Marks	Microbiology Lab.	25
Paper-IV	English-II (Functional)	50 Marks		
Paper-V	Pak. Studies	50 Marks		
Total:		325 Marks	Total:	75 Marks

Second year Total Marks: 400

6.1.3. Third Year.

Paper #	Subjects	Marks	Practicals	Marks
Paper-I	Biochemistry-I	75 Marks	Biochemistry Lab.-I	25
Paper-II	Biochemistry-II	75 Marks	Biochemistry Lab.-II	25
Paper-III	Biotechnology	75 Marks	Biotechnology Lab.	25
Paper-IV	Math & Stat. (for Biochemists & Biotechnologist)	50 Marks		
Paper-V	Computer skills (for Biochemists & Biotechnologist)	50 Marks		
Total:		325 Marks	Total:	75 Marks

Third year Total Marks: 400

6.1.4. 4th Year.

SPECIALIZATION (BIOCHEMISTRY)

Paper #	Subjects	Marks
Paper-I	Biochemistry-I	100 Marks
Paper-II	Biochemistry-II	100 Marks
Paper-III	Biochemistry-III	100 Marks
Paper-IV	Lab/Research	100 Marks
Total:		400 Marks

SPECIALIZATION (BIOTECHNOLOGY)

Paper #	Subjects	Marks
Paper-I	Biochemistry-I	100 Marks
Paper-II	Biochemistry-II	100 Marks
Paper-III	Biochemistry-III	100 Marks
Paper-IV	Lab/Research	100 Marks
Total:		400 Marks
Fourth year Total Marks : 400		

7. Eligibility Criteria for Admission

7.1. BS (4 years)

7.1.1. F.Sc. (Pre- Medical) / A- Levels (with Chemistry 2ND Division & Biology) Written test and interview to be qualified with 45% marks.(20% test + 10% Interview + 70% Marks, Age limit is of last course taken)

8 FACILITIES:

Well-equipped, purpose built laboratories. Major equipment in the Institute include, High Performance liquid Chromatography(HPLC); Gas Liquid Chromatography (GLC); Scintillation Counter; Electrophoresis Units; Centrifuges; Spectrophotometers; Furnaces; Autoclaves; Laminar Flow hoods etc etc.

8.1 Internet Facility. Internet net facility is available in the laboratories.

8.2 Computer Laboratory. A Computer laboratory equipped with 25 Pentium 4 units connected to the inter net is available.

8.3 Teaching Labs: Three well equipped and modern labs., along with supporting staff are available for conducting practicals for BS and M.Sc program.

8.4 Research Labs. Four newly constructed labs., with all modern facilities and a central lab., with many modern and up to date research facilities are available for M.Phil / Ph.D research.

8.5 Departmental Library. A newly constructed departmental library with approximately 3000 books and scientific journals available for the students.

9 ACHIEVEMENTS :

.9.1 Our excellence in both teaching and research has been recognized by the quality assurance and the research assessment exercise by the Pakistan Council for Science and Technology & HEC.

10 FUTURE PLANS:

10.1 The Institute is following its 15 years vision plan, whereby this Institute will be strengthened and equipped so that it turns into a full fledged School of Biological Sciences with established setups for:

10.1.1 Biochemistry & Molecular Biology

10.1.2 Biotechnology and Bioinformatics

10.1.3 Biochemical Parasitology

10.1.4 Drugs Development

11.1.5 Clinical Biochemistry.

11.1.6 To achieve this, we have already embarked upon the strengthening of our faculty and in-service training of our teachers.

DEPARTMENT OF MICROBIOLOGY

1. Introduction

- 1.1. Microbiology is the study of microorganisms; include Bacteria, Fungi, Viruses, Algae and Protozoa etc.(both useful and harmful for human beings, Plants and animals etc) through applying different scientific techniques, microorganisms and microbial enzymes can be used in industrial processes to carry out reactions that are not economically feasible by chemical means. Microbiology offers the possibility of major improvements in the way medicines are developed and manufactured.
- 1.2. Microbiologists are employed principally in health care (animal and Human beings), fine chemicals, brewing & distilling, food manufacturing, safety and food related industries, where they are involved in research and development, in process design & control, in management and in quality control. Therefore, various disciplines of Microbiology are prime choice of men and women, mainly because of its laboratory-based activities.
- 1.3. The Department of Microbiology was established in May 2006 and is aimed at the production of marketable and qualified product capable of finding solution / remedies against emerging and re-emerging diseases, production of different vaccines / antibiotics / enzymes, products development, functional food, waste management, bioremediation, bioprocessing and preservation of different foods etc. through research and development.
- 1.4. The department is currently offering B.S Microbiology, M.Sc Microbiology, M.Phil/M.S Microbiology and Ph.D Microbiology degree programs. In the presence of qualified PhD faculty the department is offering research in diversified areas of Microbiology.

2. Objectives

- 2.1. To foster an environment that promotes learning through quality teaching and research while encouraging mutual respect, tolerance and sensitivity.
- 2.2. To provide qualified and focused professionals in the field of Microbiology to meet the future needs of educational institutes, other government organizations and industries.
- 2.3. To prepare researchers to meet the needs of society, industry and research organizations, science and technology.
- 2.4. To develop the department as a nursery for the advanced level degree programs at other institutions particularly in the province of Balochistan.
- 2.5. To enhance higher education in the field of applied biology and microbiological sciences.

3. Vocational Job Opportunities / Marketability of Graduates

- 3.1. Food packaging and processing industry.
- 3.2. Quality control operations of safe drinking water.
- 3.3. Public Health Institutions.
- 3.4. Pharmaceutical Industry.
- 3.5. Diagnostic Laboratory Technicians / Experts.
- 3.6. Biological production industry.
- 3.7. Biotechnological interventions in environmental sciences like Bioremediation.
- 3.8. Food safety authorities.
- 3.9. Environmental protection agency.
- 3.10. Agriculture research organizations.

4. Faculty

4.1 The details of faculty members is as under:

S.No.	Name	Designation	Qualification	Field of Specialization
1	Dr. Abdul Malik Tareen	Assistant Professor / Chairperson	Ph.D	Microbiology
2	Mr. Abdul Wadood	Assistant Professor	M.Phil	Microbiology
4	Mr. M. Khanzeb (on Leave)	Lecturer	M.Sc.	Biochemistry
5	Mr. Ali Akbar	Assistant Professor	Ph.D.	Microbiology
6	Mr. Shabir Ahmad Khan	Lecturer	Phil	Microbiology
7	Dr. KaleemUllah Mandokhail	Assistant Professor	P.hD	Microbiology
8	Mr. Imran Nawaz Bugti (on Leave)	Lecturer	MS	Biotechnology
9	Dr. Fazal-ur-Rehman	Assistant Professor	Ph. D	Microbiology
10	Mr. Mumtaz Ali	Assistant Professor	M.Phil	Microbiology
11	Mr. Mohammad Yasir (on Leave)	Lecturer	M.Phil	Microbiology
12	Ms. HasinaWali (on Leave)	Lecturer	M.Sc	Microbiology
14	Ms. Rozina Rashid	Lecturer	M.Sc	Microbiology
15	Mr. Abdul Manan (on Leave)	Lecturer	M.S	Biotechnology

5. Programs of Study

5.1. 5.2.1. **BS (4 years)**
(eligibility)

5.2.2. Students (Male/Female) with at least 2nd division in F.Sc (Pre-Medical) are eligible to apply for BS program under the semester system.

5.2.3. The minimum qualifying CGPA for BSdegree is 2.0. Whenever students CGPA decreases from 2.0, he/she will be on probation for one semester. Whereas the student will be dropout from the roll of university if her/his CGPA decreases from 1.5 at any stage during the period of study.

6. Description of Courses

6.2 MSc-4 semesters Program

Semester I

English-I
Pakistan Studies
Mathematics-I
Microbiology-I
Human Physiology-I
Biochemistry-I

Semester II

English-II
Islamic Studies
Mathematics-II
Microbiology-II
Human Physiology-II
Biochemistry-II

Semester III

English-III
Sociology
Computer Applications
Microbiology-III
General Immunology
Cell Biology-I

Semester V

Microbial Anatomy & Physiology
Bacterial Genetics
Clinical Bacteriology
Mycology
Soil Microbiology

Semester VII

Introductory Microbial Technology
Plant Microbiology
Research Methodology & Instrumentation
Food & Dairy Microbiology
Genetic Engineering

Semester IV

English-IV (Communication Skills)
Environmental Current Issues
Biostatistics
Microbial Taxonomy
Cell Biology-II
Marine/Fresh Water Microbiology

Semester VI

General Virology
Epidemiology
Environmental Biotechnology
Molecular Mechanisms of Antimicrobial Drugs
Cell & Tissue Culture Technology

Semester VIII

Biotechnology
Medical Virology
Mini Research Project
Optional Subject*

7. Facilities

- 7.1. **Teaching Laboratories:** - A laboratory has been established at the Department of Microbiology to teach basic techniques in bacteriology, immunology virology, hematology and mycology. The laboratories of the Department Zoology are being shared for teaching different microbiological techniques, where desired equipment and other required facilities are available.
- 7.2. **Research Laboratories:** - The research laboratories of CASVAB are being utilized for the research projects till the establishment of full-fledged research laboratories with required facilities become available at the Department of Microbiology.
 - 7.2.1. **Research is carried out in the fields/area of:-**
 - Bacteriology
 - Virology
 - Mycology
 - Immunology
 - Molecular Biology
 - Public Health problems
 - Disease Diagnosis (Viral, Bacterial, Fungal & Protozoan)
 - Biological Product (vaccines etc) production
 - Serology & modern diagnostic/ research techniques
 - Food preservation techniques
 - Drugs efficacy against diseases.
- 7.3. **Computer Laboratory:-**The central computer laboratory of the University is located in the department of Physics and could also be used by research scholars/ teachers of other department. An independent computer laboratory has also been established at the Department where the students are also allowed to avail the facility to acquaint with latest available knowledge through internet facility.

- 7.3 **Department Library:-** A department library has been established and about 100 books on different topic of basis microbiology subjects are available for the students. Purchase of relevant books is in progress. Facility of Central Library has also been extended to the students, to increase their desired knowledge. Further, the library of CASVAB has all the relevant text/reference books and laboratory manual concerning to the subject which are also made available for the students enrolled at the Department of Microbiology.
- 7.4 **Internet Facility:-** 10 Computers along with internet facility are available at the Department and students are allowed to use the internet after university timings.
- 7.5 **Journals and Articles:-** A large number of international research journals and articles are also available on Digital Library provided by here Higher Education Commission and facility has been extended to the students for downloading research articles etc.
- 7.7 **Multimedia and overhead Projector Facility:** - For teaching subjects on modern lines facility of Overhead project is available at the department.

Faculty of Pharmacy

- 1). **Doctor of Pharmacy (Pharm-D)** *5 years*
- 2). **Doctor of Physical Therapy (DPT)** *5 years*
- 3). **Bachelor of Eastern Medicine & Surgery (B.E.M.S.)** *5 years*





FACULTY OF PHARMACY

1. INTRODUCTION

- 1.1 Pharmacy is the health profession that links the health sciences with the chemical sciences, and it is charged with ensuring the safe use of medication. The scope of Pharmacy practice includes more traditional roles such as compounding and dispensing medications, and it also includes more modern services related to patient care, including clinical services, reviewing medications for safety and efficacy, and providing drug information.
- 1.2 The significance of Pharmacy profession and the role of Pharmacists in uplifting health care system have been well established and acknowledged all over the world. The Pharmacy profession is well known as a “Life Saving Profession”. The major emphasis of the World Health Organization (WHO) in the developing countries is to provide prompt and economical means for caring human health. This noble task cannot be achieved without Pharmacists because they are the only ones who know about drugs and related substances.
- 1.3 Faculty of Pharmacy was established in 1980 and due to high demand of its graduates; it is one of the most sought after discipline. It is very well staffed and equipped. Due to its high standard it is recognized by Pakistan Council of Pharmacy.

2. OBJECTIVES

- 2.1 To prepare professional and focused pharmacists for the provision of high level pharmacy services in a range of services.
- 2.2 To provide an opportunity to students to acquire specialized knowledge and skills in pharmacy practice.
- 2.3 To provide qualified and focused professionals in the subject of pharmacy to meet the needs of health care system, clinical pharmacy, industry and society.
- 2.4 To prepare researchers to meet the needs of industry and research organization as community pharmacist, science and technology.
- 2.5 To impart knowledge of major disciplines of pharmacy, enabling the students to understand the principles of organization and inter-relationship in health with particular references to pharmacy.
- 2.6 To teach different methods for exploration, investigation, organization formulation of data and its utilization in practical life, particularly in health field.
- 2.7 To equip students with knowledge and skill for better planning and management of Hospital Pharmacy, Clinical Pharmacy, Community Pharmacy and Health Medicine.
- 2.8 To provide education programs, which encourage students to think creatively Medical Sales Officer, Medical Sales Representative etc.

1. FACULTY OF PHARMACY

The faculty will comprise of the following departments with Faculty members and relevant subjects:

1.1 DEPARTMENT OF PHARMACEUTICS:

S. #	Name	Designation	Qualification
1	Mr. Ghulam Razaque Shahwani	Chairperson / Asstt: Prof.	B-Pharm, M.Phil, Ph.D (Reg)
2	Dr. Naheed Haque	Asstt: Prof. (on Leave)	M.Phil, Ph.D
3	Dr. Syed Umer Jan	Assistant Professor	B-Pharm, M.Phil, Ph.D
4	Mrs. Tahmina Rabani	Assistant Professor	B-Pharm, M.Phil, Ph.D (Reg)
5	Dr. Qaiser Iqbal	Assistant Professor	Pharm-D, M.Phil, Ph.D (Reg)
6	Ms. Mahira Tabasum	Lecturer	B-Pharm, M.Phil, Ph.D (Reg)
7	Dr. Ghulam Mustafa Shahwani	Lecturer	Pharm-D, M.Phil, Ph.D (Reg)
8	Dr. Abdullah	Lecturer	Pharm-D

SUBJECTS

- Pharmaceutics-I (Physical Pharmacy)
- Pharmaceutics-II (Dosage Forms Science)
- Pharmaceutics-III (Pharmaceutical Microbiology & Immunology)
- Pharmaceutics-IV (Industrial Pharmacy)
- Pharmaceutics-V (Biopharmaceutics and Pharmacokinetics)
- Pharmaceutics-VI (Pharmaceutical Quality Management)
- Pharmaceutics-VII (Pharmaceutical Technology)

1.2 DEPARTMENT OF PHARMACEUTICAL CHEMISTRY:

S. No	Name	Designation	Qualification
1	Mr. Nisar Ahmed Shahwani	Chairperson/ Assistant Professor	B-Pharm, M-Phil, Ph.D (Reg)
2	Ms. Ayesha Khalid	Lecturer	B-Pharm, M.Phil
3	Dr. Gul Muhammad	Lecturer	Pharm.D, M.Phil (Reg)
4	Dr. Almas Kanwal	Lecturer	Pharm.D, M.Phil (Reg)

SUBJECTS

- Pharmaceutical Chemistry-I (Organic Chemistry)
- Pharmaceutical Chemistry-II (Biochemistry)
- Pharmaceutical Chemistry-III (Pharmaceutical Analysis)
- Pharmaceutical Chemistry-IV (Medicinal Chemistry)

1.3 DEPARTMENT OF PHARMACOGNOSY:

S. No	Name	Designation	Qualification
1	Mrs. Bushra Aziz Khan	Chairperson/ Assistant Professor	M.Sc, M-Phil, Ph.D (Reg)
2	Mr. Shafi Mohammad	Assistant Professor	B-Pharm, M-Phil, Ph.D (Reg)

SUBJECTS

- Pharmacognosy-I (Basic)
- Pharmacognosy-II (Advanced)

1.4 DEPARTMENT OF PHARMACOLOGY:

S. No	Name	Designation	Qualification
1.	Prof; Dr. Javeid Iqbal	Professor/Dean	M.Phil, PhD
2.	Mr. Abdul Aziz Khan	Assistant Professor	B-Pharm, M-Phil, Ph.D (Reg)
3.	Mr. M. Younis	Chairperson/ Assistant Professor	B-Pharm, M-Phil, Ph.D (Reg)
4.	Dr. Marvi Baloch	Assistant Professor	Pharm.D, M-Phil, Ph.D (Reg)
5.	Dr. Zainab	Lecturer	Pharm-D M-Phil (Reg)
6.	Dr. Ahmed Tokhai	Lecturer	Pharm-D M-Phil (Reg)
7.	Mr. Haroon Arshad	Lecturer (on Deputation)	B-Pharm, M-Phil
8.	Dr. Faria Khursheed	Lecturer	Pharm-D, M-Phil

SUBJECTS

- Physiology
- Anatomy & Histology
- Pathology
- Pharmacology and Therapeutics-I (Basic)
- Pharmacology and Therapeutics-II (Advanced)

1.5 DEPARTMENT OF PHARMACY PRACTICE:

S. No	Name	Designation	Qualification
1	Dr. Noman-ul-Haq	Chairperson/ Assistant Professor	B-Pharm, M-Phil, MBA, Ph.D
2	Dr. Fahad Saleem	Lecturer (on study leave)	B-Pharm, M-Phil MBA, Ph.D
3	Dr. Salma Malik	Lecturer (on study leave)	B-Pharm, M-Phil, Ph.D
4	Mr. Nafees Ahmed	Lecturer (on study leave)	B-Pharm, M-Phil, Ph.D (Reg)
5	Dr. Abdul Hadi	Lecturer	Pharm.D
6	Dr. Muhammad Shoaib	Lecturer	Pharm.D
7	Dr. M. Aleem Akhter	Lecturer (Attached to CASVAB)	B-Pharm, M-Phil, Ph.D

SUBJECTS

- Pharmacy Practice-I (Pharmaceutical Mathematics and Biostatistics)
- Pharmacy Practice-II (Dispensing, Community, Social & Administrative Pharmacy)
- Pharmacy Practice-III (Hospital Pharmacy)
- Pharmacy Practice-IV (Forensic Pharmacy)
- Pharmacy Practice-V (Clinical Pharmacy-I)
- Pharmacy Practice-VI (Clinical Pharmacy-II)
- Pharmacy Practice-VII (Computer & its Applications in Pharmacy)
- Pharmacy Practice-VIII (Pharmaceutical Management and Marketing)

5. Rules of Pharm-D Five Years

The course is conducted according to the rules of Pharmacy Council of Pakistan.

- 5.1. No student shall be allowed to sit in the next Professional Examination with out passing the previous Prof. Examination in all subjects.
- 5.2. Any student who fails to pass the 1st Prof. Examination in five chances shall cease to pursue further Pharmacy Education.
- 5.3. 40% of the written exam shall consist multiple choice questions and the rest 60% of short structured essays, extended essays.
- 5.4. A student who appears for exam in any subject and passes in theory but fails in practical or vice versa shall reappear only in theory or in practical in which he fails.

6. Rules for admission in Pharm-D

- 6.1. The candidate must have passed F.Sc Pre-Medical
- 6.2. The candidate has to appear for the entry test conducted by NTS & qualify on merit.

7. Programs of Study

- 7.1 Doctor of Pharmacy, 5 years morning and Self Supporting Evening Program
- 7.2 Doctor of Pharmacy, one year evening condense program
- 7.3 M.Phil in Pharmacy Practice, Pharmacology, Pharmacognosy, Pharmaceutical Chemistry, Pharmaceutics.
- 7.4 Ph.D in Pharmacy Practice, Pharmacology, Pharmacognosy, Pharmaceutical Chemistry, Pharmaceutics.

8. Description of Courses

- 8.1 Duration; Five Years. Each year terminates to a Professional Examination. The subjects in each professional year are approved by the Pharmacy Council of Pakistan. Higher Education Commission (HEC) and World Health Organization (WHO).
- 8.2 In addition, 1 year condense course is also offered to those pharmacists who have already graduated from Faculty of Pharmacy, University of Balochistan for the up gradation of B-Pharmacy into Doctor of Pharmacy.
- 8.3 Course of Doctor of Pharmacy 5 years Morning & Self Supporting Evening Program

First Professional**Theory**

Paper 1	Pharmaceutical Chemistry - I (Organic)	100
Paper 2	Pharmaceutical Chemistry - II (Biochemistry)	100
Paper 3	Pharmaceutics - I (Physical Pharmacy)	100
Paper 4	Physiology	100
Paper 5	Anatomy & Histology	50
Paper 6	English	100
Practical		
Paper 8	Pharmaceutical Chemistry - I (Organic)	100
Paper 9	Pharmaceutical Chemistry - II (Biochemistry)	100
Paper 10	Pharmaceutics - I (Physical Pharmacy)	100
Paper 11	Physiology	100
Paper 12	Anatomy & Histology	50
Total Marks:		1000

**Second Professional
Theory**

Paper 1	Pharmaceutics - II (Dosage Form Science)	100
Paper 2	Pharmacology and Therapeutics - I	100
Paper 3	Pharmacognosy - I (Basic)	100
Paper 4	Pharmaceutics - III (Pharmaceutical Microbiology & Immunology)	100
Paper 5	Pakistan Studies and Islamic Studies (Compulsory)	100
Paper 6	Pharmacy Practice - I (Pharmaceutical Mathematics and Biostatistics)	100
Practical		
Paper 7	Pharmaceutics - II (Dosage Form Science)	100
Paper 8	Pharmacology and Therapeutics - I	100
Paper 9	Pharmacognosy - I (Basic)	100
Paper 10	Pharmaceutics - III (Pharmaceutical Microbiology & Immunology)	100
Total Marks:		1000

Third Professional		
Theory		
Paper 1	Pathology	50
Paper 2	Pharmacology and Therapeutics-II	100
Paper 3	Pharmacognosy-II (Advanced)	100
Paper 4	Pharmacy Practice-II (Dispensing, Community, Social & Administrative Pharmacy)	100
Paper 5	Pharmaceutical Chemistry-III (Pharmaceutical Analysis)	100
Paper 6	Pharmacy Practice -VIII (Computer and its Applications in Pharmacy)	50
Practical		
Paper 7	Pathology	50
Paper 8	Pharmacology and Therapeutics-II	100
Paper 9	Pharmacognosy-II (Advanced)	100
Paper 10	Pharmacy Practice-II (Dispensing, Community and Social & Administrative Pharmacy)	100
Paper 11	Pharmaceutical Chemistry-III (Pharmaceutical Analysis)	100
Paper 12	Pharmacy Practice -VIII (Computer and its Applications in Pharmacy)	50
Total Marks:		1000

**Fourth Professional
Theory**

Paper 1	Pharmacy Practice-III (Hospital Pharmacy)	100
Paper 2	Pharmacy Practice -IV (Clinical Pharmacy-I)	100
Paper 3	Pharmaceutics-IV (Industrial Pharmacy)	100
Paper 4	Pharmaceutics-V (Bio pharmaceutics and Pharmacokinetics)	100
Paper 5	Pharmaceutics-VI (Pharmaceutical Quality Management)	100
Practical		
Paper 6	Pharmacy Practice -IV (Clinical Pharmacy-I)	100
Paper 7	Pharmaceutics-IV (Industrial Pharmacy)	100
Paper 8	Pharmaceutics-V (Bio-pharmaceutics and Pharmacokinetics)	100
Paper 9	Pharmaceutics-VI (Pharmaceutical Quality Management)	100
Total Marks:		900

**Fifth Professional
Theory**

Paper 1	Pharmaceutical Chemistry-IV (Medicinal Chemistry)	100
Paper 2	Pharmacy Practice -V (Advanced Clinical Pharmacy-II)	100
Paper 3	Pharmaceutics-VII (Pharmaceutical Technology)	100
Paper 4	Pharmacy Practice -VI (Forensic Pharmacy)	100
Paper 5	Pharmacy Practice-VII (Pharmaceutical Management and Marketing)	100
Practical		
Paper 6	Pharmaceutical Chemistry-IV (Medicinal Chemistry)	100
Paper 7	Pharmacy Practice -V (Advanced Clinical Pharmacy-II)	100
Paper 8	Pharmaceutics-VII (Pharmaceutical Technology)	100
Total Marks:		800

8.9 Course for Pharm-D 1 Year Condense Program

- 8.9.1 Pharmaceutics-IV (Bio-Pharmaceutics)
- 8.9.2 Biostatistics
- 8.9.3 Pharmaceutics-II (Clinical Pharmacy)
- 8.9.4 Computer & its Application in Pharmacy
- 8.9.5 Pharmaceutics-I (Hospital Pharmacy)
- 8.9.6 Pharmaceutical Chemistry (Instrumentation)
- 8.9.7 Pathology
- 8.9.8 Pharmaceutics-III (Pharmaceutical Technology)

DOCTOR OF PHYSICAL THERAPY (DPT)

PHYSICAL THERAPY

Physical therapy is a health care profession concerned with human function and movement and maximizing potential for healthier smooth life. It uses physical approaches to promote, maintained restore physical, psychological and social well-being, taking account of variations in health status. It is science based, committed to extending, applying evaluating and reviewing the evidence that underpins and informs its practice and delivery. The exercise of clinical judgment and informed interpretation is at its core.

The mission of physical therapy professional education is to graduate knowledgeable, service oriented practitioners who, by virtue of critical and integrative thinking render independent, and evidence- based judgments concerning patient needs.

SCOPE OF PHYSICAL THERAPY

The practice of physical therapy is the assessment, evaluation, diagnosis and treatment of neuromusculoskeletal, cardiorespiratory system of the body by physical means for the purpose of maintenance or restoration of function that has been impaired by injury or disease, for pain management and for the promotion of mobility and health. Pediatrics and sports injury are also dealt by physiotherapist. Recent development and scope is direct access of patient by physiotherapists for better health care services to community.

PHYSICAL THERAPY SPECIALISTIES

- Musculoskeletal physical therapy
- Neurological physical therapy
- Respiratory physical therapy
- Cardiovascular physical therapy
- Paediatric physical therapy.
- Geriatric physical therapy
- Integumentary physical therapy
- Women health (Gynecology and obstetrics)
- Sport physical therapy.

EMPLOYMENT OPPORTUNITIES

Job opportunities for physical therapists are excellent in Pakistan as well as abroad. It is the second highly paid profession.

Average physical therapist salaries nationwide are 26% higher than average salaries for all jobs. They can work as;

- Clinician self-employment by independent practice
- Teaching as lecturer
- Hospitals
- Rehabilitation centers and schools.

- Industries
- Sport clinic
- Fitness centers
- Government sectors and health care department (BPS-17)

RULES

- The duration of the degree course is 5 years.
- The candidate must have passed F.Sc Pre-Medical
- The candidate has to appear for the entry test conducted by NTS & qualify on merit.

CHAIRPERSON

Mrs. Tehmina Rabbani	Chairperson/Assistant Professor	B.Pharm,M.Phil, Ph.D (Reg)
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CURRICULUM AND YEAR WISE COURSE DETAILS DOCTOR OF PHYSICAL THERAPY (DPT) SCHEME OF STUDIES

First Year

S. No	Subject title	Theory Marks	Practical / Viva /Clinical Marks	Total Marks
1.	Anatomy – I	100	100	200
2.	Physiology-I	100	100	200
3.	Kinesiology	100	100	200
4.	Bio Chemistry & Genetics –I	100	Not Applicable	100
5.	English	100	Not Applicable	100
6.	Introduction to computer	100	Not Applicable	100
Total		600	300	900

Second Year

S. No	Subject title	Theory Marks	Practical / Viva /Clinical Marks	Total Marks
1.	Anatomy –II	100	100	200
2.	Physiology- II	100	100	200
3.	Biomechanics & ergonomics	100	100	200
4.	Bio Chemistry & Genetics –II	100	Not Applicable	100
5.	Exercise Physiology	100	Not Applicable	100
6.	Sociology & health and wellness	(50+50)=100	Not Applicable	100
7.	Medical Physics	100	Not Applicable	100
8.	Islamic studies & Pakistan studies	(50+50)=100	Not Applicable	100
Total		800	300	1100

Third Year

S. No	Subject title	Theory Marks	Practical / Viva /Clinical Marks	Total Marks
1.	Pathology & Microbiology	100	100	200
2.	Pharmacology	100	100	200
3.	Physical agents and Electrotherapy	100	100	200
4.	Therapeutics Exercise & Techniques	100	100	200
5.	Manual Therapy	100	100	200
6.	Evidence based & Proposal practices	100	Not Applicable	100
7.	Behavioral sciences	100	Not Applicable	100
Total		700	500	1200

Fourth Year

S. No	Subject title	Theory Marks	Practical / Viva /Clinical Marks	Total Marks
1.	Medicine including supervised Clinical practice I & II	100	200	300
2.	Clinical decision making & Deferential diagnosis	100	100	200
3.	Physical agents and musculoskeletal physical therapy including clinical practice III	100	200	300
4.	Neurological physical therapy including clinical practice IV	100	200	300
5.	Community medicine & research methodology	100	Not Applicable	100
6.	Prosthetics & Orthotics , Human development & Community based Rehabilitation	(50+50) =100	Not Applicable	100
Total		600	700	1300

Final Year

S. No	Subject title	Theory Marks	Practical / Viva /Clinical Marks	Total Marks
1	Cardiopulmonary physical therapy including supervised clinical practice-V	100	200	300
2	Emergency procedures & primary care in physical therapy	100	Not Applicable	100
3	Surgery & integumentary physical therapy including supervised clinical practice VI	100	200	300
4	physical therapy in practice and Gyne& Obstetrics	100	100	200
5	Gerontology # geriatric physical therapy	100	Not Applicable	100
6	Sport physical therapy	100	Not Applicable	100
Total		600	500	1100

BACHELOR OF EASTERN MEDICINE & SURGERY (B.E.M.S.)

DEPARTMENT OF EASTERN MEDICINE

Eastern Medical Education aims at producing competent eastern medicine (tibbi) physicians. Such physicians, with practical training based on scientific knowledge of modern diagnostics and Tibbi fundamentals will be able to take up responsibilities in health services.

Pakistan is not the only country teaching such courses. Many developed countries have adopted the concept of alternative medicine. In Japan, it is called 'Kampo' that has a society that exceeds more than 10,000 members. In India and China, they have specialized hospitals where patients are treated with herbal medicines.

In this situation, the quest for an alternative system of medicine always remained in the minds of health specialists. As a result of continuous efforts, the National Council for Tibb (NCT) a regulatory and registration authority for Eastern Medicine was established. NCT helped in improving tibbi medicine and the registration of eastern medicine (tibbi) practitioners.

The objective behind this program is to prepare batches of knowledgeable and committed eastern medicine practitioners who could become agents of change by fulfilling healthcare needs of the masses based on centuries old wisdom and expression of tibb.

PROGRAM OFFERED

Bachelor of Eastern Medicine and Surgery (BEMS)

Faculty members:

S.No	Name	Designation	Qualification
1	Mr.Shafi Mohammad	Chairperson/ assistant professor	B.Pharm, M.Phil, Ph.D (Reg)
2	Mr.MuhammadIshaq	Lecturer (Contract)	BEMS, M.Phil (Reg)
3	Mr.Toufееq Ahmed	Lecturer (Contract)	BEMS, M.Phil (Reg)
4	Mr.AmjadHussain	Lecturer (Contract)	BEMS

OBJECTIVES

- Train eastern medicine (Tibbi) graduates capable of treating ailing persons through modern diagnostic techniques and with time tested remedies of Eastern Medicine.
- Prepare eastern medicine (Tibbi) clinicians to demonstrate professional skills through standard curative, preventive, and promotive interventions.
- Produce qualified eastern medicine (Tibbi) practitioners to understand temperament, body humors, disease process and to treat patients with confidence and kindness.
- Integrate basic medical knowledge with diagnostic skills and eastern medicine (Tibbi) therapeutics and pharmacognosy.
- Plan and carry out research in Eastern Medicine aimed at health promoting and disease curing, based on principles of tibb.

- Support National Health System by assisting/supervising/contributing in the areas of Safe Food & Nutrition, Maternal Child Health, Health Education, Family Planning, Sanitation, Safe Water, and Clean Environment.
- Produce qualified graduates with knowledge of Eastern Medicine in tandem with latest technologies for diagnosis and modern methods of treatment and healthcare.

SCOPE

It is worthwhile to note that the number of eastern medicine manufacturing units in the country is more than 400. They are producing and marketing thousands of herbal products in the market. Recently the regulation of Alternative medicine has been established and implementation has been started. Apart from that, hundreds of eastern medicine Clinics / Matabs/ Dispensaries, both in public and private sectors, are functional. Therefore the need for qualified and competent eastern medicine (Tibbi) physician / hukama is fast increasing.

Following are some of the areas where job opportunities for qualified eastern medicine (Tibbi) physician exist:

- General Practice / Private Practice: Set up a private clinic as practice as Registered eastern medicine (Tibbi) physician Practitioner, authorized to prescribe eastern (Tibbi) Medicine.
- Teaching Career: Appointed as lecturer/instructor in Tibbi institutions, Deptts. of Eastern Medicine, etc.
- Appointed as Registered eastern medicine (Tibbi) physician Practitioner in any private institution as a recognized tibbi practitioner.
- Appointed as a scientific officer, research officer, in quality assurance, production, etc. in eastern medicine (Tibbi) pharma industry, as Sales officer, Product Promotion Officer of tibbi pharmaceutical industry, etc. and as Food & Nutrition Education Officer, Food Supervisor, Food Inspector in Govt., Semi Govt., and Private sectors.

Criteria and requirements

- The duration of the degree course is 5 years.
- The candidate must have passed F.Sc Pre-Medical
- The candidate has to appear for the entry test conducted by NTS & qualify on merit.

CURRICULUM FOR BEMS
FIRST PROFESSIONAL
Theory

Paper 1.	Anatomy-I	100
Paper 2.	Physiology-I	100
Paper 3.	Biochemistry-I	100
Paper 4.	Principles of Eastern Medicine-I	100
Paper 5.	History of Eastern Medicine	100
Paper 6.	Islamic Studies/Ethical Behavior/ Pakistan Studies	100
Practical		
Paper 7.	Anatomy-I	100
Paper 8.	Physiology-I	100
Paper 9.	Biochemistry-I	100
Total =		900

SECOND PROFESSIONAL
Theory

Paper 1.	Anatomy-II	100
Paper 2.	Physiology-II	100
Paper 3.	Biochemistry-II	100
Paper 4.	Principles of Eastern Medicine-II	100
Paper 5.	Pharmacognosy-I	100
Paper 6.	Bioinformatics	50
Practical		
Paper 7.	Anatomy-II	100
Paper 8.	Physiology-II	100
Paper 9.	Biochemistry-II	100
Paper 10.	Pharmacognosy-I	100
Paper 11	Bioinformatics	50
Total =		1000

**THIRD PROFESSIONAL
Theory**

Paper 1.	Pharmacy	100
Paper 2.	Microbiology & Parasitology	100
Paper 3.	Community Medicine	100
Paper 4.	Materia Medica-I	100
Paper 5.	Pharmacognosy-II	100
Paper 6.	Clinical Methods and Therapeutics-I	100
Paper 7.	Forensic Medicine and Toxicology	100
Practical		
Paper 8.	Pharmacy	100
Paper 9.	Microbiology & Parasitology	100
Paper 10.	Materia Medica-I	100
Paper 11.	Pharmacognosy-II	100
Clinical		
Paper 12.	Clinical Methods and Therapeutics-I	100
Total =		1200

**FOURTH PROFESSIONAL
Theory**

Paper 1.	Pathology	100
Paper 2.	Surgery-I	100
Paper 3.	Clinical Psychology & Psychiatry	100
Paper 4.	Materia Medica-II	100
Paper 5.	Obstetrics and Gynaecology-I	100
Paper 6.	Clinical Methods and Therapeutics-II	100
Practical		
Paper 7.	Pathology	100
Paper 8.	Clinical Psychology & Psychiatry	100
Paper 9.	Materia Medica-II	100
Clinical		
Paper 10.	Surgery-I	100
Paper 11.	Obstetrics and Gynaecology-I	100
Paper 12.	Clinical Methods and Therapeutics-II	100
Total =		1200

GYNECOLOGY FINAL PROFESSIONAL Theory

Paper 1.	Paediatrics	100
Paper 2.	Ophthalmology and ENT	100
Paper 3.	Obstetrics &Gynaecology–II	100
Paper 4.	Surgery–II	100
Paper 5.	Clinical Diagnostics	100
Paper 6.	Clinical Methods and Therapeutics–III	100
Clinical		
Paper 7.	Pediatrics	100
Paper 8.	Ophthalmology and ENT	100
Paper 9.	Obstetrics &Gynaecology–II	100
Paper 10.	Surgery–II	100
Paper 11.	Clinical Diagnostics	100
Paper 12.	Clinical Methods and Therapeutics–III	100
Total =		1200
TOTAL MARKS OF STUDY COURSE =		5500

FACILITIES

Teaching Laboratories: The Faculty of Pharmacy has 8 well-equipped and modern laboratories along with the supporting staff to cater the needs of Pharmacy students.

Research Laboratory: A separate well equipped laboratory is developed for M.Phil and Ph.D students where all facilities for research are available including latest equipments.

Computer Lab: Computer laboratory is established which can be used by students and research scholars of the Faculty.

Industrial Lab: The Faculty of Pharmacy has established a well-equipped and modern industrial lab for students, Graduates and researchers.

Physical Therapy Lab: Two well-equipped Physical Therapy modern laboratory were established, where all facilities are available.

Animal House: An animal house is established for students and researchers.

Faculty Library: The Faculty library is managed by a qualified librarian and has over 800 books covering a wide range of disciplines in Pharmacy for teaching and research purposes. These books are in addition to more than 1000 titles of Pharmacy books stocked in Central library of the University. The Faculty library also has a vast collection of International Research Journals. A complete list of these Journals can be obtained from the librarian.

Internet Facility: The internet facility is also available in all laboratories and library numbers of International research journals are available on Digital Library provided by Higher Education Commission.

FACILITIES.

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The internet facility is also available in all laboratories and library number of International research journals are available on Digital Library provided by Higher Education Commission and research articles of interest can also be downloaded.

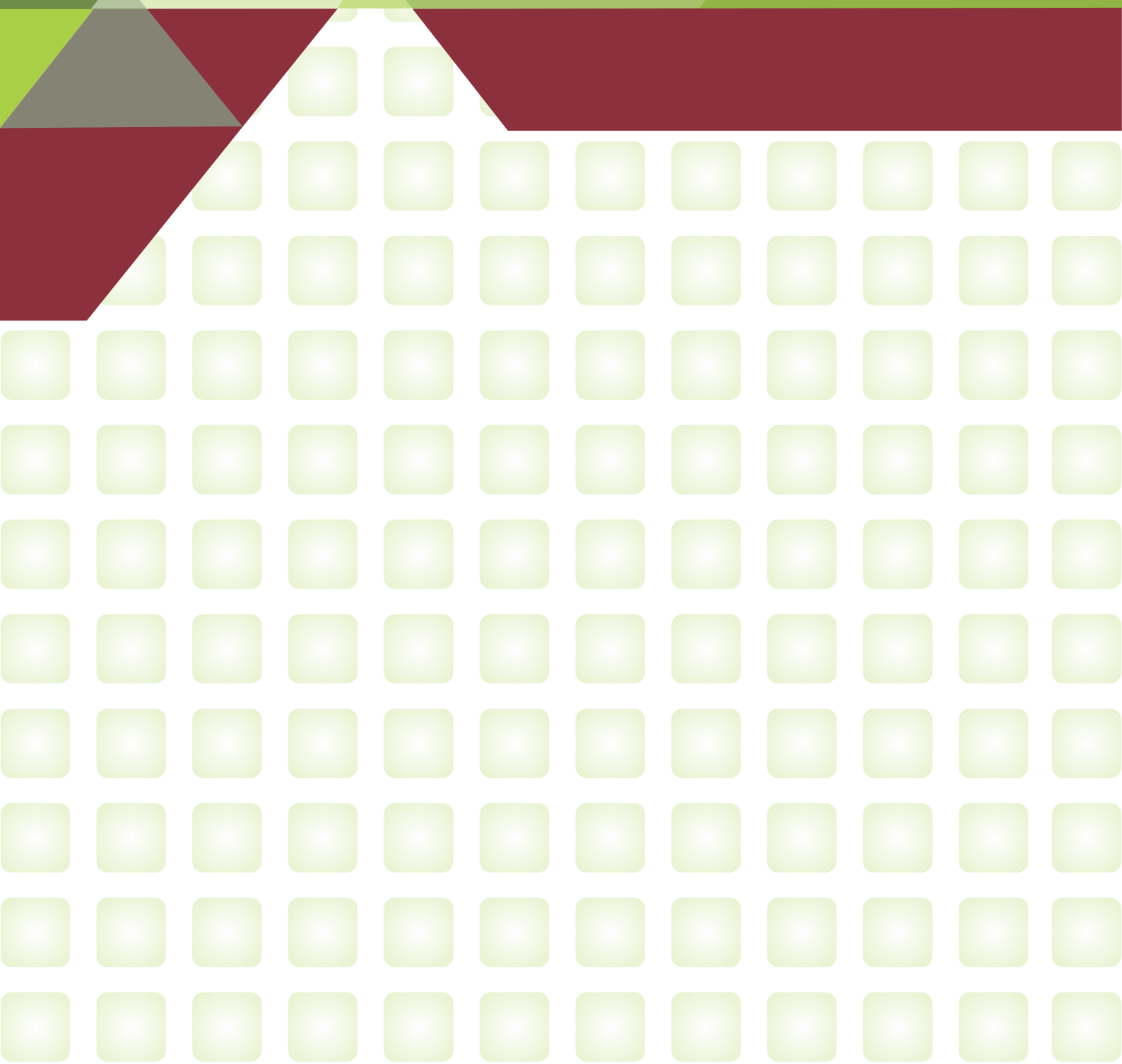
Microbiology Research Laboratory.

A separate well equipped Laboratory has been developed for subject of Microbiology and higher research students.

Faculty of Earth & Environmental Sciences

1). BS. (Geology)

4 years program





DEPARTMENT OF GEOLOGY

1. Introduction

- 1.1. Geology is the science of earth dealing with rocks, minerals, the origin, history and structure of the earth. It plays an important role in the economy of a nation. It is one of the most important subjects of basic and applied sciences, particularly with reference to the Balochistan province, which provides excellent opportunities for the development and exploitation of natural resources. Balochistan has high prospects for geological research and exploration of economic mineral deposits, petroleum, groundwater and other natural resources.
- 1.2. The Department of Geology is one of the seven departments, established at the raising of the University of Balochistan in 1971. During the initial years, the department offered only M.Sc. courses. Now BS 4-Years (Applied Geology) Program is also offered.

2. Objectives

- 2.1. To prepare high quality professionals in the field of geology through 4-Years B.S. (Applied Geology) and 2-Years M.Sc. (Geology) programs in order to meet the national and international needs.
- 2.2. To prepare professional and skilled manpower in the field of Applied Geology, capable of carrying out geological field and analytical work independently.
- 2.3. To provide training to plan and conduct goal-oriented research projects and assess their socio-economic aspects, achieve targets, write technical reports and scientific research papers and provide consultancy services.

3. Vocational Job Opportunities / Marketability of Graduates

- 3.1. The graduates will have opportunities to work in the following organizations:
Geological Survey of Pakistan (GSP),
Pakistan Atomic Energy Commission,
Hydrocarbon Development Institute of Pakistan,
Water and Power Development Authority (WAPDA),
Oil and Gas Sector,
Pakistan Mineral Development Corporation (PMDC),
Balochistan Development Authority (BDA),
Public Health Engineering Department,
Various educational institutions (mostly Universities and Colleges) and
Various national and international mineral exploration companies.
- 3.2. The opening of new projects, such as Saindak Metals Limited, Rikho-Dic Copper-Gold Project, Gawadar Port, construction of dams, development of gas pipeline from Iran to India, development of water reservoirs and thermal (coal-based) power stations in the country, have high potential for new job opportunities.

4. Faculty

S. #	Name	Designation	Qualification	Specialization
1.	Prof. Dr. Akhter Muhammad Kasi	Professor	Ph.D. UK	Sedimentology
2.	Prof. Dr. Mehrab Khan Baloch	Professor	Ph.D. UoB	Igneous & Metamorphic
3.	Prof. Dr. Abdul Tawab Khan	Professor/ Dean Students Affairs	Ph.D. UOB	Igneous Petrology
4.	Dr. Muhammad Ibrahim Baloch	Associate Professor	Ph.D. Ukraine	Hydrogeology
5.	Mr. Mohammad Ayub Baloch	Assistant Professor Chairperson	M.Phil UoB	Petroleum Geology

6.	Mr. Din Mohammad Kakar	Assistant Professor	M.Phil UoB	Sedimentology
7.	Mr. Nasir Karim	Asstt. Professor	M.Sc. UoB	Sedimentology
8.	Mr. Rahim Jan	Asstt. Professor	P.hD	Sedimentology
9.	Dr. Mohibullah	Asstt. Professor	M.Sc. UoB	Biostratigraphy
10.	Mr. Rahim-ud-Din	Lecturer	M.Sc. UoB	Petroleum Geology
11.	Mr. Tahir Iqbal	Lecturer	M.Sc. UoB	Hydro-Geology
12.	Ms. Khadija Nadimi	Lecturer (Study Leave)	M.Sc. Qaid-i- Azam University, Islamabad.	Geophysics
13.	Ms. Shazia Fareed	Lecturer (Adhoc)	M.Sc. UoB	Physics
14.	Ms. Nazima Yousuf	Lecturer (Adhoc)	M.Sc. SBKWU, Quetta	Chemistry
15.	Mr. Aminullah	Museum Curator	M.Sc. UoB	Petroleum Geology

5. Programs of Study

5.1 B.S. (Applied Geology) Program

5.1.1. **Duration:** B.S. (Applied Geology) is a 4-years program. During 1st year and 2nd year beside geology, allied subjects are also taught. During 3rd year, core subjects of geology are covered. During 4th year, students can opt for their fields of interest from amongst several groups of optional courses.

6. Description of Courses

6.1. Presently the 4-Years BS (Applied Geology) program is being run under the Annual System of examinations.

6.2 B.S. (Applied Geology) Programme Annual System

6.2.1 Schedule of Courses in Annual System

Schedule of Courses

<u>Course No.</u>	<u>Title</u>	<u>Marks</u>
1st Year		
Geol-101	Islamic Studies	50
Geol-102	English	100
Geol-103	Applied Mathematics-I	100
Geol-104	Applied Physics-I	75+25
Geol-105	Applied Chemistry-I	75+25
Geol-106	General Geology	75+25
Geol-107	Zoology	75+25
Geol-108	Botany	75+25
2nd Year		
Geol-201	Pak. Studies	50
Geol-202	Applied Mathematics-II	100
Geol-203	Applied Physics-II	75+25
Geol-204	Applied Chemistry-II	75+25
Geol-205	Paleontology & Stratigraphy	75+25
Geol-206	Crystallography, Optical Mineralogy	75+25
Geol-207	Computer & Geostatistics	50+50
Geol-208	Field Work	100

<u>Course No.</u>	<u>Title</u>	<u>Marks</u>
3rd Year		
Geol-301	Geotectonics & Structural Geology	75+25
Geol-302	Sedimentology	75+25
Geol-303	Economic & Field Geology	75+25
Geol-304	Igneous and Metamorphic Petrology	75+25
Geol-305	Micropaleontology & Biostratigraphy	75+25
Geol-306	Minerology	75+25
Geol-307	Geophysics and Geomorphology	75+25
Geol-308	Field Geology, Field Mapping, Report and Viva Voce (Fieldwork is compulsory)	50+50
4th Year		
Geol-401	Geology of Pakistan	75+25
Geol-402	Research Project and Thesis	100
Geol-403-Geol-406	Four courses to be chosen from a number of Groups of Specialization, depending on the availability of facilities in the Department. Two courses (out of the 4 chosen) must Be directly relevant to the Thesis.	Each 75+25

7. Eligibility Criteria

7.1. 4-Years B.S. (Applied Geology) Programme

- 7.1.1. Candidates should have passed Fsc Pre-Eng/Pre Medical/ ICS Groups.
- 7.1.2. Candidate should have sound Physique and capable of undertaking climbing heights during fieldwork and should not suffer from color blindness for the purpose of optical Work.
- 7.1.3. Should qualify the entry test conducted by NTS and qualify on merit.

8. Facilities

- 8.1. **Departmental Library** Library of the Department contains more than 2500 textbooks, reference books, geological encyclopedias, field reports and audiovisual materials (i.e. geological videos, Cds, slides and Transparencies).

8.2. Laboratories

- 8.2.1. **Geochemistry Laboratory:** This laboratory has some facilities for geochemical analysis. It is \equipped with glassware and chemicals.
- 8.2.2. **Petrography Laboratory:** The petrography lab has facilities for megascopic analysis of minerals and rocks.
- 8.2.3. **Microscopic Laboratory:** This laboratory is well equipped for the microscopic analysis of the rocks and minerals. It contains transmitted and reflected research microscopes, polarizing microscopes and projected microscopes. One of the research microscope has attached computer, display monitor and camera for obtaining microphotographs.

- 8.2.4. **Thin Section Workshop:** This workshop contains facilities for preparation of thin sections of rocks and is equipped with rock cutting machine, polishing machine, grinder with different mesh sizes, abrasive sands and other chemicals used for the preparation of thin sections of rocks. Other equipments include crusher, water distal plant, and micro grinder.
- 8.2.5. **Computer Laboratory:** This laboratory is equipped with fifteen computers, a Laser Printer, a Scanner and a Photocopier. Computers have connection with the main network of the University and internet. A large number of international research journals are also available on the Digital Literary provided by the Higher Education Commission, where students can download research articles of their interests.
- 8.2.6. **Museum** is one of the attractive places of the University. It contains about 1000 specimens of Rocks, minerals and fossils of foreign and local collections.

Faculty of Management Sciences, Business & Information Technology

- 1). **BS. (Computer Science)** *4 years*
- 2). **BS. (Information Technology)** *4 years*
- 3). **B.Com (Self Finance)** *2 years*



