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PROSPECTUS

BACHELOR'S DEGREE PROGRAM

2015-16
2015-16
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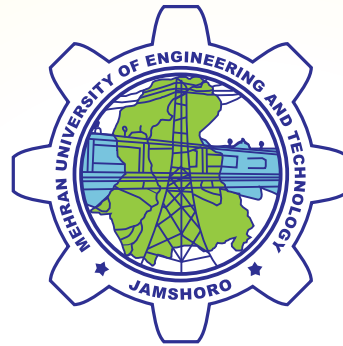
**MEHRAN UNIVERSITY OF
ENGINEERING & TECHNOLOGY**

JAMSHORO, SINDH-PAKISTAN

www.muett.edu.pk

ISO 9001 Certified

PROSPECTUS



FOR UNDERGRADUATE STUDIES

IN

ENGINEERING, ARCHITECTURE AND CITY & REGIONAL PLANNING

SESSION 2015-16

MEHRAN UNIVERSITY OF ENGINEERING & TECHNOLOGY, JAMSHORO

AND

SHAHEED ZULFIQAR ALI BHUTTO (SZAB) CAMPUS, KHAIRPUR MIR'S

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Prospectus 2015-16



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MEHRAN UNIVERSITY OF ENGINEERING & TECHNOLOGY

Mission

The Mehran University of Engineering and Technology believes in establishing conducive environment for top of the class professional education and research. We aim to produce quality professionals who uphold and advance for the integrity, honor, and dignity of their profession, while taking active part in the development of the society.

Quality Policy

In line with its mission, the management, faculty and staff have developed broad based Quality Management System in the University with a strong commitment to the following.

1. Customer Focus

The University considers the students as its direct customers and their sponsors, the industry, the government and the society as its indirect customers; and commits itself to satisfy their positive needs and expectations.

2. Quality Leadership

The management and the faculty shall take a lead in furthering the cause of education by maintaining the highest degree of quality outcomes.

3. Student Involvement

Students play a significant role in maintaining a progressive learning environment in the University. Their positive involvement at all appropriate levels shall be ensured to accomplish the common goals.

4. Compliance with Statutory Requirement

Every individual working for or studying in the University shall ensure compliance with the University Act, Statutes, Regulations and Rules.

5. Continual Improvement

Every individual working for or studying in the University shall seek continual improvement in performance.

6. Integrity of the Learning Environment:

Integrity of the learning environment shall be maintained for ensuring optimal outcomes.

7. Optimization of Resources:

All human and material resources shall be fully optimized through continual minimization of the waste of these resources.

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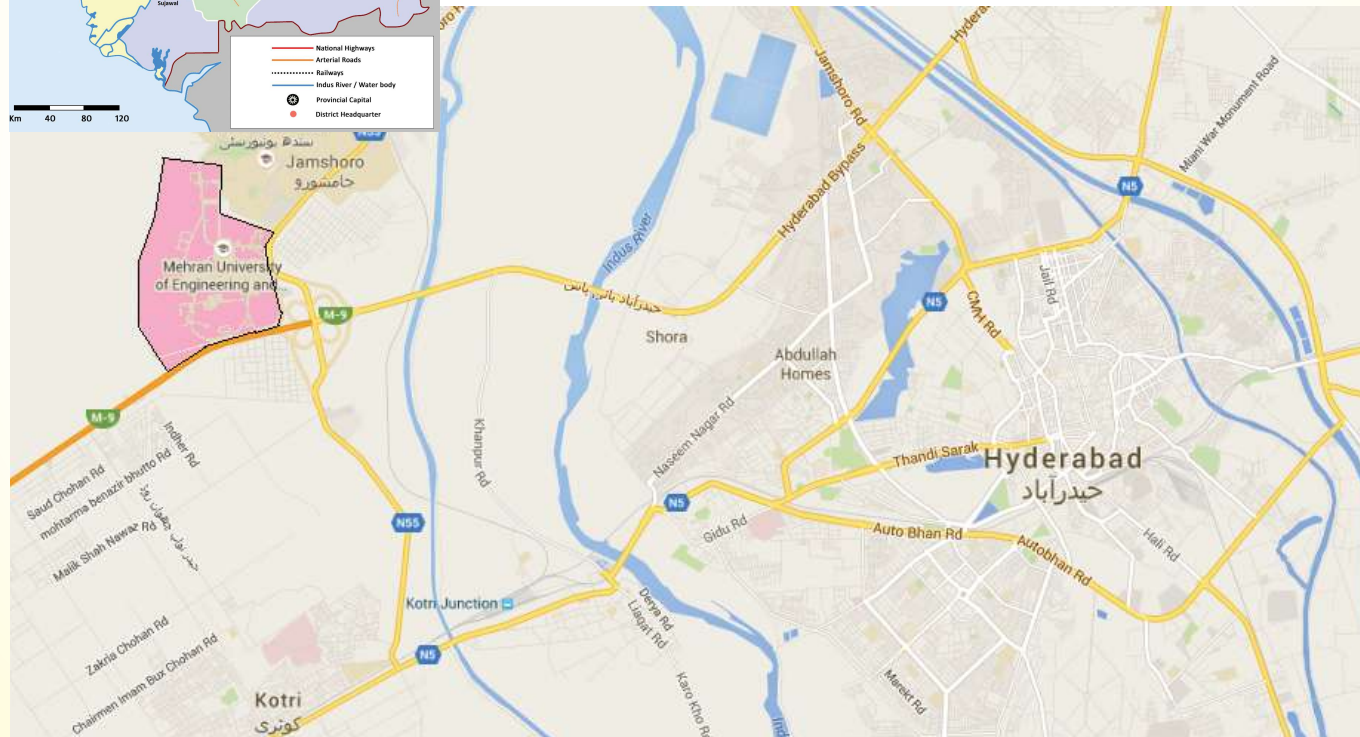


- Ranked amongst top 400 Universities of the world in QS Ranking 2010.
- Ranked 1st in Province of Sindh and 3rd amongst Public Sector Engineering Universities in Pakistan by HEC.
- Celebrated Golden Jubilee (1963-2013).
- ISO Certified since 2003.
- More than One Hundred PhD faculty members.
- State-of-Art physical infrastructure.
- University Academic Calendar strictly followed.
- Produced more than 50 PhDs.
- Our more than 150 students availed Erasmus Mundus and US Fulbright funded exchange program to study for one semester in Europe or USA.
- Got credit of organizing 1st International Coal Conference (ICC) & Organizing 2nd International Coal Conference in November 2015.
- Organized 4th International Multi TopIc Conference (IMTIC'15).
- Organised 3rd International Conference on Energy, Environment and Sustainable Development (EESD).
- Hosted 1st International Conference on Wireless Sensor Network for Developing Countries (WSN4DS'13).
- Hosted SARAC Countries, Documentation Processing Workshop funded by SAARAC secretariat.
- Organized IEEE Pakistan Student Gold WIE Congress (PSGWC13).
- Launching of Eco-Friendly car.
- Signed MOU with AI SOFT Inc USA to establish an IT Incubator at MUET.
- Organized Panel Discussion on "Technology and Education: Survival of the Nation".
- Became partner university of Erasmus Mundus INTACT (It's Time for Collaboration towards Close cooperation) scholarship Program between Regional Asia and EU.
- Launching of CTIF (Centre for Telecommunication Infrastructure) for South East Asia region at MUET (Being 6th centre after Denmark, USA, Japan, India, Italy).
- Excellent progress in Establishment of Advance water resource Management Institute under USAID program (About Rs 2 Billion).
- 73 Fully funded USAID Scholarships for students to be awarded through Students financial Aid Office (SFAO).
- 11 Scholarships through Pakistan Educational Foundation.
- Establishment of LabView International Academy 1st ever in any university in Sindh and 2nd in Pakistan after Air University Islamabad.

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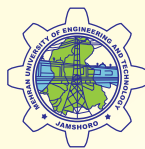
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LOCATION PLAN



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ACADEMIC CALENDAR 2016

ACADEMIC AND EXAMINATION SCHEDULE FOR 12 (Arch), 13, 14, 15 & 16 BATCHES

<u>TERMSYSTEM</u>		<u>SEMESTER SYSTEM</u>	
Duration of a Term		Duration of a Semester	
Teaching: 16 weeks	Two Terms Duration: 22x2 = 44 weeks	Teaching (including Mid Semester Exam): 16 weeks	Two Semester Duration: 22 x 2 = 44 weeks
Examination Preparation: 02 weeks	Summer Vacation: 06 weeks	Final Examination Preparation: 02 weeks	Summer Vacation: 06 weeks
Examinations: 04 weeks	Winter Vacation: 02 weeks	Final Examination Conduct: 04 weeks	Winter Vacation: 02 weeks
Total 22 weeks	Total 52 weeks	Total 22 weeks	Total 52 weeks
<p>Minimum attendance requirement to be eligible to appear in the Term Examination is 75%.</p> <p>Minimum number of Lectures during the Term in a subject of 4 C.H shall be 52.</p> <p>Each Lecture is of One hour duration.</p>		<p>Minimum attendance requirement to be appear in the Semester Examination is 75%.</p> <p>Minimum number of Lectures during the Semester in a subject of 3CH shall be 42.</p> <p>Minimum number of contact hours for a practical of CH per Semester is 42.</p>	

Batch & Term	12-Batch (Arch) 9th Term	Batch & Semester	13-Batch 7th Semester	14-Batch 5th Semester	15-Batch 3rd Semester	16-Batch 1st Semester
Date of Start of Classes	04-01-2016	Date of Start of Classes	04-01-2016	04-01-2016	04-01-2016	04-01-2016
Date of suspension of classes	24-04-2016	Conduct of Mid Semester Exam	29-02-2016	29-02-2016	29-02-2016	29-02-2016
Schedule of Examination	25-04-2016	Date of suspension of classes	24-04-2016	24-04-2016	24-04-2016	24-04-2016
Display of Sessional Marks	02-05-2016	Schedule of Examination	25-04-2016	25-04-2016	25-04-2016	25-04-2016
Examination preparation up to	08-05-2016	Display of Sessional Marks	02-05-2016	02-05-2016	02-05-2016	02-05-2016
Conduct of Examination	09-05-2016	Examination preparation up to	08-05-2016	08-05-2016	08-05-2016	08-05-2016
Announcement of results(Expected)	29-07-2016	Conduct of Final Semester Exam	09-05-2016	09-05-2016	09-05-2016	09-05-2016
		Announcement of results (Expected)	29-07-2016	29-07-2016	29-07-2016	29-07-2016

Summer Vacation: 04-06-2016 to 17-07-2016

Batch & Term	10-Batch (Arch) 10th Term	Batch & Semester	13-Batch 8th Semester	14-Batch 6th Semester	15-Batch 4th Semester	16-Batch 2nd Semester
Date of Start of Classes	18-07-2016	Date of Start of Classes	18-07-2016	18-07-2016	18-07-2016	18-07-2016
Date of suspension of classes	06-11-2016	Conduct of Mid Semester Exam	14-09-2016	14-09-2016	14-09-2016	14-09-2016
Schedule of Examination	07-11-2016	Date of suspension of classes	06-11-2016	06-11-2016	06-11-2016	06-11-2016
Display of Sessional Marks	11-11-2016	Schedule of Examination	07-11-2016	07-11-2016	07-11-2016	07-11-2016
Examination preparation up to	20-11-2016	Display of Sessional Marks	11-11-2016	11-11-2016	11-11-2016	11-11-2016
Conduct of Examination	21-11-2016	Examination preparation up to	20-11-2016	20-11-2016	20-11-2016	20-11-2016
Announcement of results(Expected)	13-02-2016	Conduct of Final Semester Exam	21-11-2016	21-11-2016	21-11-2016	21-11-2016
		Announcement of results (Expected)	13-02-2017	13-02-2017	13-02-2017	13-02-2017

Winter Vacation: 17-12-2016 to 01-01-2017

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INTRODUCTION

1. INTRODUCTION

1.1 The University

The Mehran University is a distinctive, pioneering and connected university that shapes the future through educating and empowering people to meet the real challenges of tomorrow.

Industrial and technological development in Pakistan has been quite rapid since its independence particularly during the sixties and seventies. The main fields of development have been related to the enhancement of agriculture, establishment and up-gradation of industries and exploration of its indigenous resources. This development has resulted in increased demand for qualified engineers in different fields in addition to other professionals. In order to meet this demand and to provide an opportunity of engineering education to the people hailing from the interior of Sindh Province, Sindh University Engineering College was established in 1963 as a constituent college of University of Sindh in Jamshoro about 15 km from Hyderabad on the right bank of river Indus.

The Education Policy of 1972 provided for up-gradation of the Sindh University Engineering College to the level of a University of Engineering and Technology. Accordingly, the college was first declared as an additional campus of the University of Sindh in July 1976 and later upgraded to the level of a full-fledged independent University on 1st March, 1977 named as Mehran University of Engineering and Technology (Mehran UET).

Mehran UET is one of the most engaged, supportive and responsive universities in Pakistan which focuses on making higher education and research accessible and relevant to all people of Pakistan in general and Sindh in particular. The University has continued to put in efforts to address community engagement opportunities, financial sustainability and growth, improvement in teaching and learning and research excellence, program up gradation and expansion into new discipline areas. Mehran UET believes that this scrutiny is an opportunity to provide the public with a confirmation of high standards in academic quality and student centered and holistic approach to education. This university is proud to claim that the students are getting the high-quality education which they expect and deserve.

Mehran UET is becoming a role model to other universities with desire to grow and flourish through engagement. This university is achieving this by working more closely with students, communities, industries, regional employers and with government at all levels. Over the years, Mehran UET has focused on four core elements: becoming a national leader in the quality of our academic programs; being universally recognized for the quality of the learning experience; creating an environment that truly values and is enriched by pluralistic diversity; and expanding the mission to address our society's most challenging needs.

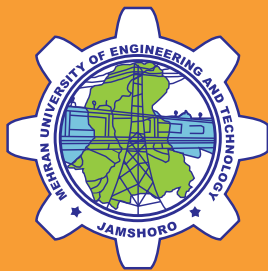
The end product of the University is academic excellence, measured by the quality of the research, scholarship, and graduates it produces along with their collective impact on the society at large. To be a leader of Public Sector Universities, the prevailing culture demands excellence in all endeavors, this can only be achieved when all parts of the University; administration, faculty, staff, students and alumni are committed to the highest standards of performance.



1.2 Officers Of The University

Following are the main Officers of the University, responsible for overall administration, academic activities and development work in the University.

Sr. No.	Post	Name	Phone
1.	Vice-Chancellor	Prof. Dr. Muhammad Aslam Uqaili	022-2771197
2.	Pro Vice-Chancellor MUET, SZAB, Khairpur Mir's Campus	Engr. Ghulam Sarwar Kandhir	0243-714005
3.	Dean, Faculty of Architecture and Civil Engineering	Prof. Dr. Ghous Bux Khaskheli	022-2771638
4.	Dean, Faculty of Electrical, Electronic & Computer Engineering	Prof. Dr. Bhawani Shankar Chowdhary	022-2771558
5.	Dean, Faculty of Engineering	Prof. Dr. Hafeez-ur-Rehman Memon	022-2771312
6.	Dean, Faculty of Science, Technology & Humanities	Prof. Dr. Pir Roshan Shah Rashdi	022-2771352
7.	Registrar	Prof. Dr. Tauha Hussain Ali	022-2771371
8.	Director Finance	Mr. Muneer A. Shaikh	022-2771442
9.	Controller of Examinations	Mr. Suhail Ahmed Khatian	022-2771631
10.	Director Admissions	Prof. Dr. Agha Faisal Habib	022-2771704
11.	Provost (Hostels)	Prof. Dr. Dur Muhammad Pathan	022-2772299
12.	Director Planning & Development	Mr. Ashfaqe Ahmed Issani	022-2771254
13.	Resident Auditor (Acting)	Mr. Vikio Bhambhro	022-2772285
14.	Librarian	Mr. Azam Ali Halepota	022-2771169





**FACULTY OF
ARCHITECTURE
AND
CIVIL ENGINEERING**

2.1 DEPARTMENT OF ARCHITECTURE

2.1.1 The Department

The complexity of modern buildings calls for the effective combination of skill and talent in the best interest of Architecture & Environment. The Department of Architecture offers a comprehensive curriculum in a modern field that encompasses City Planning and environmental consideration for both urban and sub-urban setting. Studies in Architecture are related to design and construction of houses and other building types keeping in view the appearance, comfort, usability, optimization between expenditure, facilities and environmental friendliness. The Department of Architecture offers a full-time five-year course leading to the degree of "Bachelor of Architecture (B.Arch.)". The syllabus of the subjects is designed in such a way to acquaint the students with basic planning, aesthetics, design and drawing of plans and specification of various buildings. At the same time, some subjects concerning the basic Architectural design including Computer Aided Design (CAD) and Socio-Economic Design are also included in the curriculum. Teachings through lectures in the class rooms are adequately supported by studios and laboratory work.



2.1.2 Laboratory Facilities

The numbers of laboratories have been established in the department, which include;

1. Model Making Lab
2. Computer Graphics Lab
3. Computer Lab
4. Photographic Lab
5. Surveying and Environment Materials Lab

2.1.3 The Faculty

Mr. Muhammad Hashim Jokhio
Chairman of the Department
Phone: 022-2772293 Ext. 3100

Mr. Naeem Irfan (on lien)
Associate Professor
PGD. Pakistan

Mr. Abdul Rehman Halepoto
Assistant Professor
PGD. Pakistan

Mr. Muhammad Hashim Jokhio
Assistant Professor
B.Arch Pakistan

Mr. Moazam Ali Pathan
Assistant Professor
PGD. Pakistan

Mr. Muhammad Afzal Brohi
Assistant Professor
B.Arch Pakistan

Mr. Irfan Ahmed Memon
Assistant Professor
PGD. Pakistan

Ms. Raheela Leghari (Study leave)
Assistant Professor
M.E. Pakistan

Ms. Sabeen Qureshi (Study leave)
Assistant Professor
M.E. Pakistan

Ms. Shahnila Ansari
Assistant Professor
M.E. Pakistan

Ms. Khalida Baloch
Lecturer
PGD. Pakistan

Ms. Fareeda Mugheri
Lecturer
B.Arch Pak

Mr. Abdul Waheed Memon
Lecturer
PGD. Pakistan

Ms. Naheed Rohail
Lecturer
M.E. Pakistan

Mr. Abdul Salam Talpur
Lecturer
PGD. Pakistan

Ms. Firdous Parveen Soomro
Lecturer
B.Arch Pak

2.1.4 Courses

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIRST SEMESTER			
1	Islamic Studies/Ethics	02	00
2	Pakistan Studies	02	00
3	Visual Communication	02	02
4	Basis Design-I	02	02
5	Physical Environment	03	00
6	Statics	03	00
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SECOND SEMESTER			
1	Functional English	03	00
2	Basic Design-II	00	02
3	History of Art & Architecture-I	03	00
4	Building Materials	03	00
5	Model Making	00	02
6	Surveying	03	01
TOTAL		12	05

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
THIRD SEMESTER			
1	Architectural Design-I	02	02
2	Physical Environmental Studies-I	03	00
3	History of Art & Architecture-II	03	00
4	Sociology	02	00
5	Computer Aided Design-I	02	01
6	Basics of Strength of Materials-I	02	00
TOTAL		14	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FOURTH SEMESTER			
1	Architectural Design-II	02	02
2	Physical Environmental Studies-II	03	00
3	History of Art & Architecture-III	03	00
4	Building Construction-I	03	00
5	Computer Aided Design-II	00	02
6	Basics of Theory of Structures	02	00
TOTAL		13	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIFTH SEMESTER			
1	Architectural Design-III	02	02
2	Building Construction-II	03	00
3	Basic Structural Analysis	02	00
4	Building Services-I	03	00
5	Computer Aided Design-III	00	02
6	Muslim Architecture	02	00
TOTAL		12	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SIXTH SEMESTER			
1	Architectural Design-IV	02	02
2	Building Services-II	03	00
3	Working Drawings & Details-I	00	02
4	RCC Design	03	00
5	Buildings Economics	02	00
6	Theories & Criticism in Architecture	03	00
TOTAL		13	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SEVENTH SEMESTER			
1	Architectural Design-V	02	02
2	Landscape Design	02	01
3	Working Drawings & Details-II	00	02
4	Urban Planning & Design-I	03	00
5	Structure in Architecture-I	03	00
6	Architectural Conservation	03	00
TOTAL		13	05

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
EIGHT SEMESTER			
1	Architectural Design-VI	02	02
2	Interior Design	02	01
3	Working Drawings & Details-III	00	02
4	Urban Planning & Design-II	02	01
5	Structure in Architecture-II	03	00
6	Energy Efficient Architecture	03	00
TOTAL		12	06

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
NINTH SEMESTER			
1	Architectural Design-VII	02	02
2	Quantity Surveying & Accounting	03	00
3	Sustainable Architecture	03	00
4	Research & Development project -I (Thesis Report)	00	05
	TOTAL	08	07
TENTH SEMESTER			
1	Professional Practice & Management	03	00
2	Disaster Management	02	00
3	Research & Development Project-II (Thesis Report)	00	10
	TOTAL	05	10

2.1.5 Career Opportunities

Our graduates can pursue their careers not only in government organizations and private sector but they can also choose to setup their own businesses.

2.2 DEPARTMENT OF CIVIL ENGINEERING

2.2.1 The Department

Civil Engineering is the process of directing and controlling natural resources for the use and benefit of human kind through construction of various structures. It applies engineering practices to the planning, design, construction, operation and maintenance of structures such as buildings, roads, bridges, railways, factories, airports, irrigation schemes, docks, harbors, dams, flood control systems, water supply, sewerage disposal schemes etc. Thus, civil engineering is the largest and broadest discipline of engineering.

The Department of Civil Engineering of the University provides essential and advanced engineering education according to the requirements of field. The various fields of specialization are introduced to the final year students by assigning them a thesis project. The thesis projects may be specific to a particular branch of Civil Engineering like Structural Engineering, Geotechnical Engineering, Construction Management etc.

The department teaches many courses relevant to the various fields of Civil Engineering that is Structural Engineering, Geotechnical Engineering, Irrigation & Drainage Engineering, Transportation Engineering, Environmental Engineering, Construction Engineering & Management etc. Theory classes of different subjects are complemented by tutorials and laboratory works, for which adequate facilities with equipment have been established. In addition, the students are taken to field visits of the Civil Engineering projects such as water distribution structures, bridge & building structures, road construction works, geotechnical works etc. During the summer vacations the students are also sent on various Civil Engineering projects for internship. This is to expose them to practical engineering practices being actually implemented.

The Department also offers postgraduate courses leading to degrees such as Post-Graduate Diploma (PGD.), Master of Engineering (M.E.), Master of Philosophy (M.Phil.) and Doctor of Philosophy (Ph.D.) in the following fields.

- Civil Engineering
- Structural Engineering
- Construction Management
- Geotechnical & Highways Engineering

The department has recently upgraded the Software Laboratory with latest computers and advanced Software related to Civil Engineering. All the class rooms of the department are equipped with multimedia tools.



2.2.2 The Faculty

Dr. Ghous Bux Khaskheli
Chairman of the Department
Phone: 022-2772254-72 Ext. 7100

Dr. Aneel Kumar
Co-Chairman of the Department
Phone: 022-2772254-72 Ext. 7132

Dr. Ghous Bux Khaskheli
Professor
Ph.D. United Kingdom

Dr. M. Mehboob Gugarman
Professor
Ph.D. China

Dr. Abdul Sami Qureshi
Professor
Ph.D. Germany

Dr. Tauha Hussain Ali
Professor
Ph.D. Australia

Dr. Aneel Kumar
Professor
Ph.D. Japan

Dr. Rizwan Ali Memon
Professor
Ph.D. Pakistan

Dr. Khalifa Qasim Laghari
Professor
Ph.D. Pakistan

Dr. Nafees Ahmed Memon
Professor
Ph.D. Austria

Dr. Zubair Ahmed Memon (On Lien)
Professor
Ph.D. Malaysia

Dr. Kamran Ansari (On Lien)
Professor
Ph.D. United Kingdom

Dr. Ashfaque Ahmed Memon
Professor
Ph.D. Pakistan

Dr. Agha Faisal Habib
Professor
Ph.D. United Kingdom

Dr. Zaheer Ahmed Almani
Professor
Ph.D. United Kingdom

Mr. Atta Muhammad Phul (On Deputation)
Associate Professor
M.E. Pakistan

Dr. Naeem Aziz Memon
Associate Professor
Ph.D. United Kingdom

Dr. Pervez Shaikh
Assistant Professor
Ph.D. Pakistan

Mr. Ghulam Hussain Mahesar
Assistant Professor
M.Sc. Pakistan

Mr. Jawaid Kamal Ansari
Assistant Professor
M.E. Pakistan

Mr. Ashfaque Ahmed Pathan
Assistant Professor
M.E. Pakistan

Mr. Arshad Ali Memon
Assistant Professor
M.E. Pakistan

Dr. Fareed Ahmed Memon
Assistant Professor
Ph.D. Malaysia

Mr. Samar Hussain Rizvi
Assistant Professor
M.E. Pakistan

Mr. Azizullah Jamali
Assistant Professor
M.E. Pakistan
Mr. Amjad Ali Pathan (On Lien)
Assistant Professor
M.E. Pakistan
Mr. Shabir Hussain Khahro (On Lien)
Lecturer
M.E. Malaysia
Mr. Masroor Ali Jatoi
Lecturer
PGD. Pakistan
Mr. Farhan Qureshi
Lecturer
M.E. Pakistan
Mr. Ali Murtaza Phull
Lecturer
B.E. Pakistan
Mr. Abdul Rakeeb Memon
Lecturer
PGD. Pakistan
Mr. Ali Raza Khoso
Lecturer
B.E. Pakistan
Mr. Fahad Ali Shaikh
Lecturer
B.E. Pakistan
Mr. Muhammad Abu Bakar
Lecturer
B.E. Pakistan
Mr. Fida Hussain Siddiqui
Lecturer
B.E. Pakistan

2.2.3 Laboratory Facilities

The Department of Civil Engineering has following laboratories. All the laboratories are well equipped with advanced and conventional testing equipment.

1. Soil Mechanics Laboratory
2. Highway Engineering Laboratory
3. Engineering Geology Laboratory
4. Concrete Laboratory
5. Structural Engineering Laboratory
6. Engineering Mechanics Laboratory
7. Environmental Engineering Laboratory
8. Hydraulics Laboratory
9. Software laboratory
10. Surveying Laboratory

2.2.4 Courses

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIRST SEMESTER			
1	Engineering Drawing	03	01
2	Civil Engineering Materials	03	01
3	Surveying-I	03	01
4	Functional English	03	00
TOTAL		12	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SECOND SEMESTER			
1	Engineering Mechanics	03	01
2	Applied Calculus	03	00
3	Pakistan Studies	02	00
4	Islamic Studies / Ethics	02	00
5	Civil Engineering Drawing	02	01
6	Introduction to Computer & C++ Programming	02	01
TOTAL		14	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
THIRD SEMESTER			
1	Surveying-II	03	01
2	Transportation Engineering	03	00
3	Strength Materials-I	03	00
4	Engineering Geology	02	01
5	Differential Equations, Fourier Series and	03	00
6	Laplace Transforms		
TOTAL		14	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FOURTH SEMESTER			
1	Theory of Structures	03	00
2	Fluids Mechanics and Hydraulics-I	03	01
3	Construction Engineering	02	00
4	Plain and Reinforced Concrete	03	01
5	Complex Analysis, Statistical Methods & Probability	03	00
6	Architectural and Town Planning	02	00
TOTAL		16	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIFTH SEMESTER			
1	Strength of Materials-II	03	00
2	Structural Analysis	03	00
3	Fluid Mechanics and Hydraulics-II	03	01
4	Steel Structures	03	00
5	Linear Algebra and Numerical Methods	03	00
TOTAL		15	01

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SIXTH SEMESTER			
1	Applied Hydraulics	03	01
2	Soil Mechanics	03	01
3	Modern Methods of Structural Analysis	03	00
4	Reinforced and Pre-Stressed Concrete	03	01
5	Quantity Surveying and Estimation	03	00
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SEVENTH SEMESTER			
1	Highway and traffic Engineering	03	01
2	Structural Design and Drawing	03	00
3	Geotechnical Engineering	03	01
4	Irrigation Engineering	03	01
5	Environmental Engineering-I	02	01
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
EIGHT SEMESTER			
1	Foundation Engineering	03	00
2	Environmental Engineering-II	03	00
3	Construction Management & Planning	03	00
4	Hydrology & Drainage Engineering	03	00
5	Project / Thesis	00	04
TOTAL		12	04

2.2.5 Career Opportunities

Our graduates can follow careers in many different fields and organizations related with Civil Engineering Projects and they can also choose to set up their own businesses. Typical employment sectors for civil engineers include: consulting, contractors, local authorities, public sector departments (Buildings, Highways, Railways, Airports, Irrigation, Water and Power, Ports etc) non-profit and research organizations. The B.E. program at MUET, Jamshoro provides a clear route to a professional career in Civil Engineering.

2.3 DEPARTMENT OF CITY & REGIONAL PLANNING

2.3.1 The Department

In order to meet the ever-increasing demand for qualified planners, to provide better and pollution-free living environment to the people, to ensure planned growth, and to control and guide future planning activities in urban and rural areas of the country, a full-time four-year course is offered in the field of City and Regional Planning.

Keeping in view the baseline curriculum prepared by the National Curriculum Revision Committee constituted by the Higher Education Commission (HEC), the curriculum was revised and updated for 13-Batch and onwards, to bring it in line with local, national and international requirements and to introduce innovation to ensure quality of education



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and uniformity of curriculum in the Pakistani universities, which is also in accordance with the recommendations of the Pakistan Council of Architects and Town Planners (PCATP).

The curriculum is designed in such a way that it involves a wide spectrum of activities regarding the preparation of master plans and development plans for villages, towns, cities and regions. To provide the practical knowledge, the study visits of different towns and cities are conducted to collect the primary data about the physical, social and economic aspects of housing, infrastructure, traffic and transportation, slums and katchi-abadies, etc. It also involves analysis, preparation and implementation of proposed policies, programs and plans for improvement of old urban areas and development of new settlements at both urban and regional levels.

On successful completion of the entire requirement for the degree, the students will be awarded the degree of Bachelor of City and Regional Planning (B.CRP). Four batches are admitted in year 2012, 2013, 2014 & 2015 respectively. The department also offers the degree of Masters (M.CRP), Master of Philosophy (MPhil) and Doctor of Philosophy (Ph.D) in the field of City and Regional Planning.

Objectives of the Department

Following are the main objectives of the Department

- To provide world-class advanced education knowledge and skills in the field of City and Regional Planning.
- To conduct outstanding technical basis and applied research in the field of City and Regional Planning profession.
- To provide professionals in various streams of specializations in City and Regional Planning.

2.3.2 The Faculty

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Chairman of the Department
Phone: 022-2772294 Ext. 7200
Dr. Imtiaz Ahmed Chandio
Assistant Professor
Ph.D. Malaysia
Mr. Muhammad Masood
Assistant Professor
MCRP. Thailand
Ms. Saima Kalwar (On Study Leave)
Assistant Professor
MCRP. Pakistan
Dr. Aftab Hussain Talpur
Lecturer
Ph.D. Malaysia
Mr. Naveed Agro (On Study Leave)
Lecturer
MCRP. Australia
Mr. Taufique Ahmed Qureshi (On Study Leave)
Lecturer
B.CRP. Pakistan
Mr. Irfan Ahmed Memon (On Study Leave)
Lecturer
B.CRP. Pakistan
Mr. Fahad Ahmed Shaikh
Lecturer
B.CRP. Pakistan
Mr. Noman Sahito
Lecturer
MCRP. Pakistan
Mr. Muhammad Yousif Mangi
Lecturer
B.CRP. Pakistan

Mr. Ubedullah Soomro
Lecturer
B.CRP. Pakistan
Mr. Shahbaz Khan
Lecturer
B.CRP. Pakistan

2.3.3 Laboratory Facilities

The following laboratory facilities are available in the department:

1. Audio-Visual Laboratory
2. Computer Laboratory
3. Graphic & Model Making Laboratory
4. Photographic Developing & Printing Laboratory
5. Environmental Physics & Services Laboratory
6. Surveying Laboratory
7. Drawing Studio

2.3.4 Courses

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIRST SEMESTER			
1	Introduction to Planning	03	01
2	Technical Drawing	02	02
3	Calculus & Statistical Methods	03	00
4	Islamic Studies / Ethics	02	00
5	Pakistan Studies	02	00
6	Model Making	00	02
	TOTAL	12	05

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SECOND SEMESTER			
1	Socio-economic Aspects of Planning	03	00
2	Architectural Design for Planners	02	02
3	Surveying-I	03	01
4	Planning Data Analysis	03	00
5	Functional English	03	00
	TOTAL	14	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
THIRD SEMESTER			
1	History of Urban Planning	03	00
2	Transportation Engineering	03	01
3	Construction Technology	03	01
4	Surveying-II	03	01
5	Communication Skills & Report Writing	02	00
	TOTAL	14	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FOURTH SEMESTER			
1	Planning Law	03	00
2	Housing	03	00
3	Transportation Planning	03	01
4	Mapping & Remote Sensing	03	01
5	Computer Aided Design	02	01
	TOTAL	14	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIFTH SEMESTER			
1	Urban Renewal	02	01
2	Planning Techniques	03	00
3	Site Planning and Urban Design	03	01
4	Environmental Engineering	03	01
5	Information & Database Management	02	01
	TOTAL	13	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SIXTH SEMESTER			
1	Research Methods	03	00
2	Planning of New Towns	03	01
3	Rural Planning	02	01
4	Environmental Planning & Management	03	01
5	Introduction to Geographical Information System	02	01
	TOTAL	13	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SEVENTH SEMESTER			
1	Master Planning-I	02	01
2	Landuse & Building Control	02	01
3	Project Planning and Management	03	01
4	District & Regional Planning	03	01
5	Community Development	02	01
	TOTAL	12	05

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
EIGHT SEMESTER			
1	Master Planning-II	03	02
2	Estate Management	03	00
3	Finance Planning & Management	03	00
4	Planning Practice	02	00
5	Project	00	04
	TOTAL	11	06

2.3.5 Career Opportunities

After qualifying, our graduates can serve the nation as professional Planners in the public sectors such as, Ministry of Housing and Works, Ministry of Planning and Development, Ministry of Environment, Ministry of Local Government, Sindh Building Authority and nonprofit research organizations. The department of City & Regional Planning has played a vital role not only in Planning Education but also in the development of Urban Research in the Country.

2.4 INSTITUTE OF ENVIRONMENTAL ENGINEERING AND MANAGEMENT

2.4.1 The Institute

With increased awareness about environmental issues at the global and national levels, environmental engineering has become a fast emerging discipline with vast scope for progression in the future. The Institute of Environmental Engineering & Management (IEEM) has been established with the aim creating new knowledge and finding innovative solutions to local and global environmental issues through application of such knowledge. There is lot of hue and cry for control of the pollution in the urban and rural areas, oceans, rivers and agriculture lands. Today, Pakistan stands on the threshold of implementing environmental standards. Environmental Protection Agencies (EPAs) of the five provinces



and federal government have assigned task to implement environmental standards and therefore, there will be great need for large number of qualified experts in the field of Environmental Engineering. The scope of Environmental Engineer goes beyond the community and regional levels to global level.

The Bachelor of Engineering (B.E.) program is based on sound theoretical knowledge and through the practical training supported by field practical and industrial training.

The syllabus includes subjects like, Basic Sciences, Computer Sciences, Fluid Mechanics, Hydraulics, Surveying, Water & Wastewater Engineering, Renewable Energy, Waste Management, Environmental Health & Safety, Hazardous Waste Risk Assessment, Cleaner Production, Modeling of Environmental System and numerical analysis. The B.E. degree will make the students eligible for admission to postgraduate degree (M.E. and Ph.D in Environmental Engineering). We have highly qualified faculty having Ph.D and M.E. from abroad, prepare the IEEM graduates to achieve excellence in their career.

2.4.2 The Faculty

Prof. Dr. Khan Muhammad Brohi

Director of the Institute

Phone: 022-2772253 Ext. 7300

Dr. Khan Muhammad Brohi

Professor

Ph.D. Japan

Dr. Rasool Bux Mahar (On Lien)

Professor

Ph.D. China

Dr. Abdul Razaque Sahito

Associate Professor

Ph.D. Pakistan

Mr. Muhammad Ali Memon

Assistant Professor

M.E. Pakistan

Dr. Sheeraz Ahmed Memon

Assistant Professor

Ph.D. Korea

Mr. Imdad Ali Kandhar
Lecturer
M.E. Pakistan
Mr. Muhammad Safar Korai (On Study Leave)
Lecturer
M.E. Pakistan
Mr. Zulfiqar Ali Effendi
Lecturer
M.E. Pakistan
Mr. Azizullah Channa
Lecturer
M.E. Pakistan
Ms. Murk Komal
Lecturer
B.E. Pakistan
Ms. Maryam
Assistant Professor
PGD. Pakistan

2.4.3 Laboratory Facilities

The department is also equipped with the laboratories are listed below, having latest instruments.

1. Hi-Tech Laboratory
2. Water & Soil Pollution Control Laboratory
3. Solid Waste Management Laboratory
4. Air & Noise Pollution Control Laboratory
5. GIS & Computer Laboratory
6. Thermo Laboratory
7. Microbiology Laboratory

2.4.4 Courses

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIRST SEMESTER			
1	Pakistan Studies	02	00
2	Islamic Studies/Ethics	02	00
3	Introduction to Environmental Engineering	03	00
4	Computer Aided Learning	02	01
5	Surveying	03	01
6	Environmental Physics	02	00
TOTAL		14	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SECOND SEMESTER			
1	Functional English	03	00
2	Applied Calculus	03	00
3	Environmental Chemistry	02	01
4	Engineering Mechanics	03	01
5	Introduction to Computer Programming	03	01
TOTAL		14	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
THIRD SEMESTER			
1	Ecological Management	03	00
2	Engineering Drawing Practice	00	01
3	Linear Algebra & Analytical Geometry	03	00
4	Fluid Mechanics	03	01
5	Engineering Materials & Environment	02	00
6	Environmental Microbiology	02	01
TOTAL		13	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FOURTH SEMESTER			
1	Environmental Economics	02	00
2	Applied Thermodynamics	03	01
3	Differential Equations & Fourier Series	03	00
4	Computer Aided Design	00	01
5	Water Supply Engineering	03	01
6	GIS & Remote Sensing	03	01
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIFTH SEMESTER			
1	Thermal Power Plants	03	01
2	Numerical Analysis and Computer Application	03	01
3	Electrical Technology	02	01
4	Engineering Hydrology	03	00
5	Wastewater Engineering	03	01
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SIXTH SEMESTER			
1	Renewable and Emerging Energy Technologies	03	01
2	Solid Waste Management	03	01
3	English Communication Skills	02	00
4	Statistics and Probability	03	00
5	Air & Noise Pollution Control	03	01
TOTAL		14	03

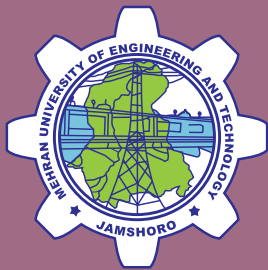
Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SEVENTH SEMESTER			
1	Water Resources & Irrigation Engineering	03	01
2	Natural Resources Management	02	00
3	Health , Safety and Environment	03	00
4	Applied Soil Mechanics	03	01
5	Modeling of Environmental Systems	03	01
6	Design Project-I	03	00
TOTAL		17	03

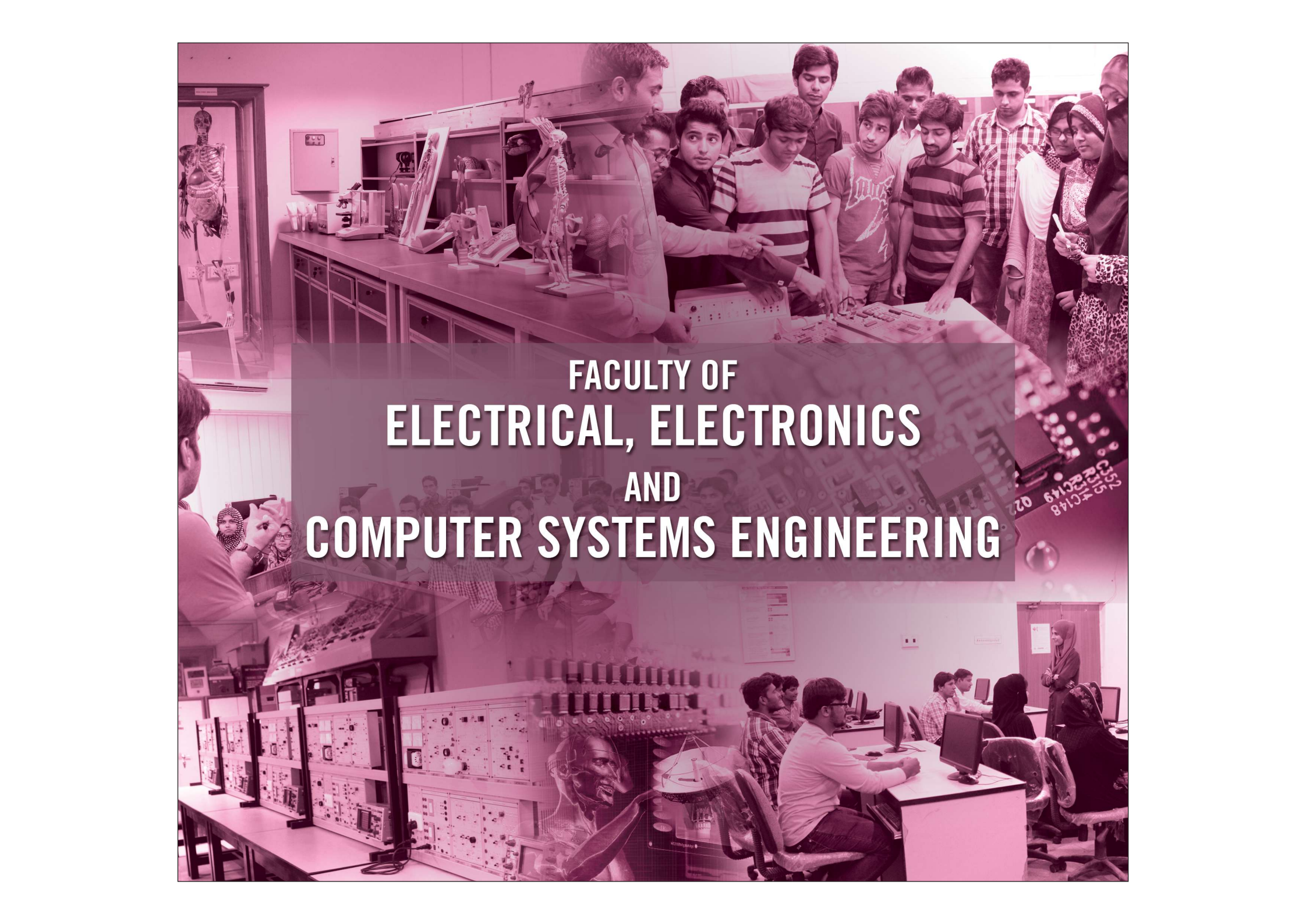
Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
EIGHT SEMESTER			
1	Hazardous Waste Risk Assessment	02	00
2	Cleaner Production Techniques	03	00
3	Environmental Impact Assessment	03	00
4	Project Planning & Management	02	01
5	Design Project-II	06	00
TOTAL		16	01

2.4.5 Career Opportunities

Environmental Engineering undergraduate and post graduate program offer you opportunities to work in any aspect of environmental protection. The major areas include air pollution control; hazardous waste management; toxic materials control; water supply and wastewater treatment; storm water management; solid waste disposal; industrial hygiene; radiation protection; health; safety and environment (HSE), environmental impact assessment (EIA); public health and land pollution control. Environmental engineers are also leaders of the development, planning and implementation of environmental sustainability principles, including waste reduction, alternative energy, and life-cycle analysis. Within each of these major categories, there also are many sub-categories.

Environmental Engineering provides limitless opportunities as to type of work, for whom you work, and where you work. A career in Environmental Engineering provides a comfortable salary, job security, and considerable personal satisfaction.





**FACULTY OF
ELECTRICAL, ELECTRONICS
AND
COMPUTER SYSTEMS ENGINEERING**

3. FACULTY OF ELECTRICAL, ELECTRONICS & COMPUTER SYSTEMS ENGINEERING

3.1 DEPARTMENT OF BIOMEDICAL ENGINEERING

3.1.1 The Department

Biomedical Engineers apply the engineering principles and materials technology to healthcare and rehabilitation. This can include researching, designing and developing medical products, such as joint replacements or robotic surgical instruments, designing or modifying equipment for clients with special needs in a rehabilitation setting, or managing the use of clinical equipment in hospitals and the community. Mehran University of Engineering and Technology has got the privilege to establish the Biomedical Engineering Department for the first time in the history of all Public sector universities of Pakistan. Technological innovation in the field of medicine and healthcare is accelerating at a rapid pace. Modern hospital is now the center of the technologically sophisticated healthcare systems; and this requires staff that is technologically aware with the sophisticated high-tech equipment. In practice, it involves everything from diagnostic and surgical equipment and patient monitoring through implants such as pacemakers, artificial joints and limbs to the computer simulation of biological functions. All these modern aids to healthcare have to be conceived, designed, tested, manufactured, installed, operated, maintained and improved. This is the job of biomedical engineers. Keeping in view the tremendous growth of Biomedical Sector and emerging trends of telemedicine and e-health system in the country, there is great scope and a role to play for Biomedical Engineers as product designers, e-health / telemedicine experts, equipment procurement experts, and solution providers.



The world market for all biomedical devices, including diagnostic and therapeutic equipment, is in the range of \$100 billion/year. It is destined to grow even further, especially in areas that have ageing populations. Biomedical Engineers will be of increasing importance to this growth. It is an inter-disciplinary and applied branch of electronic engineering, which also requires a working knowledge such as physiology, human anatomy and biochemistry.

Therefore in year 2003, MUET started the program to produce graduates exclusively in Biomedical Engineering. Since 2011, the Biomedical Engineering Department is housed in the newly built beautiful edifice with young, dynamic and visionary leadership.

3.1.2 The Faculty

Mr. N.P. Chowdhry
Chairman of the Department
Phone:022-2772279 Ext. 7000
Dr. Ahsan Ahmad Ursani (On Lien)
Professor
Ph.D. France
Mr. N.P. Chowdhry
Assistant Professor
M.E. United Kingdom
Dr. Muhammad Arif
Assistant Professor
Ph.D. United Kingdom
Dr. Syed Amjad Ali
Lecturer
Ph.D. China
Dr. Najma Baloch
Lecturer
MBBS. Pakistan
Dr. Syed Faisal Ali
Lecturer
Ph.D. Pakistan
Mr. Salman Afridi
Lecturer
M.E. Pakistan

Ms. Rabia Chandio
Lecturer
B.E. Pakistan
Mr. Noman Khan (On Study Leave)
Lecturer
B.E. Pakistan
Mr. M. Aamir Panhwar
Lecturer
B.E. Pakistan
Mr. Madeeha Channa
Lecturer
B.E. Pakistan
Mr. Ghulam Dastagir Shah
Lecturer
B.E. Pakistan
Ms. Kandeel Fatima
Lecturer
B.E. Pakistan
Ms. Murk Rehman
Lecturer
B.E. Pakistan
Mr. Pertab Rai
Lecturer
B.E. Pakistan
Mr. Yougal K. Chowdhry
Lecturer
B.E. Pakistan

3.1.3 Laboratory Facilities

The numbers of laboratories have been established in the department, which include;

1. Biomedical Instrumentation Laboratory
2. Biomedical Sciences Laboratory
3. Biomedical Computing Laboratory
4. Biomedical Engineering Laboratory
5. Telemedicine and Research Laboratory

3.1.4 Courses

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIRST SEMESTER			
1	Functional English	03	00
2	Basic Electrical Engineering	02	01
3	Basic Biology/ Basic Mathematics	03	00
4	Introduction to Computing	03	01
5	Applied Physics	03	01
6	Applied Chemistry	02	01
TOTAL		13	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SECOND SEMESTER			
1	Basic Electronics	03	01
2	Electrical Circuits and Systems	03	01
3	Biophysics	03	00
4	Applied Calculus	03	00
5	Pakistan Studies	02	00
6	Islamic Studies/Ethics	02	00
TOTAL		16	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
THIRD SEMESTER			
1	Electronic Circuit Design	03	01
2	Engineering Statics	02	00
3	Bio-Chemistry	02	01
4	Physiology-I	02	01
5	Human Anatomy	03	00
6	Linear Algebra and Analytical Geometry	03	00
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FOURTH SEMESTER			
1	Electronic Instrumentation	03	01
2	Strength of Materials	02	01
3	Engineering Dynamics	02	00
4	Digital Electronics	03	01
5	Differential Equations	03	00
6	Physiology-II	02	00
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIFTH SEMESTER			
1	Biomaterials and Design	03	01
2	Biomedical Instrumentation	03	00
3	Numerical Analysis and Computer Applications	03	01
4	Microprocessor and Data Acquisition	03	01
5	Complex Variable and Transforms	03	00
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SIXTH SEMESTER			
1	Signals and Systems	03	01
2	Control Systems	03	01
3	Laboratory Instrumentation	03	00
4	Bio-Photonics	03	00
5	Probability and Statistics	03	00
TOTAL		15	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SEVENTH SEMESTER			
1	Digital Signal and Image Processing	03	01
2	Modeling Simulation	02	01
3	Bio-Mechanics	02	01
4	Technical Report Writing and Presentation Skills	02	01
5	BM Engineering Project (Partial)	00	04
6	Economics and Healthcare Management	02	00
TOTAL		11	08

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
EIGHT SEMESTER			
1	Emerging Trends in Biomedical Engineering	03	01
2	Medical Imaging	03	01
3	Medical and Healthcare Ethics	02	00
4	Neural Networks	02	01
5	BM Engineering Project (Partial)	00	03
TOTAL		10	06

3.1.5 Career Opportunities

After the graduation from MUET our graduates have vast job opportunities in diverse areas like medical equipment manufacturing and repairing, orthopedic and rehabilitation engineering. They can also be absorbed in hospitals to provide valuable advice on the status of medical equipment. Biomedical engineers can also engage themselves in research activities by working sweetly with doctors in the field of computational mechanics and physiology. There is a huge demand for biomedical engineers in Pakistan. Biomedical engineers who monitor and maintain the databases of medical instrumentation and work with physicians to adapt instrumentation for the specific needs of the physician and hospitals are most wanted in hospitals of Pakistan. Rehabilitation engineers who develop hardware and software computer adaptations and provide cognitive aids to assist patients with memory impairment are also much required.

3.2 DEPARTMENT OF COMPUTER SYSTEMS ENGINEERING

3.2.1 The Department

Department of Computer Systems Engineering is a discipline that integrates fields of Electrical Engineering and Computer Science required in developing Computer Systems. Computer Engineers usually have training in Electronic Engineering, software design, and hardware-software integration instead of only Software Engineering or Electronic



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Engineering. Computer Engineers are involved in many hardware and software aspects of computing, from the circuit design of individual microprocessors, personal computers, and supercomputers, to latest development of communication system and networks. Therefore, this field of engineering not only focuses on how computer systems work, but also how they integrate into the larger picture.

Usual tasks involving Computer Engineers include writing software and firmware for embedded microcontrollers, designing analogue sensors, designing mixed signal circuit boards, and designing operating systems. Computer Engineers are also suited for robotics research, which relies heavily on using digital systems to control and monitor electrical systems like motors, communications, and wireless sensors. Due to increasing job requirements for engineers, who can concurrently design hardware, software, firmware, and manage all forms of computer, information and management systems used in industry. The department offers a carefully designed multidisciplinary courses and degree programs.

3.2.2 The Faculty

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Chairman of the Department
Phone: 022-2771206, 2772250-73 Ext. 4201
Dr. Mukhtiar Ali Unar
Meritorious Professor
Ph.D. United Kingdom
Dr. A.Q.K. Rajput
Professor Emeritus
Ph.D. United States of America
Mr. Muhammad Zahid Shaikh
Associate Professor
M.E. Pakistan
Dr. T.J. Saifullah Khanzada
Associate Professor
Ph.D. Germany
Dr. Sheeraz Memon
Associate Professor
Ph.D. Australia
Dr. Sana Hoor Jokhio
Associate Professor
Ph.D. United Kingdom

Dr. Javed Ali Baloch
Associate Professor
Ph.D. United Kingdom
Dr. Faheem Aziz Umrani
Associate Professor
Ph.D. United Kingdom
Mr. Liaquat Ali Thebo
Assistant Professor
M.E. Pakistan
Mr. Arbab Ali Samejo
Assistant Professor
M.E. Pakistan
Dr. Shahnawaz Talpur
Assistant Professor
Ph.D. China
Mr. Naveed Ahmed Jaffari
Assistant Professor
M.E. Pakistan
Ms. Zartasha Baloch
Assistant Professor
M.E. Pakistan
Mr. Rizwan Badar Baloch
Assistant Professor
M.E. Pakistan
Dr. Adnan Ashraf
Assistant Professor
Ph.D. Pakistan
Mr. Moazzam Jawaid (On Study Leave)
Assistant Professor
M.E. Pakistan
Ms. Hamna Rajput (On Study Leave)
Assistant Professor
M.E. Pakistan
Dr. Noor-u-Zaman Leghari
Assistant Professor
Ph.D. United Kingdom

Dr. M. Shaban Jokhio
Assistant Professor
Ph.D. New Zealand
Mr. Salman Ahmed Shaikh (On Study Leave)
Lecturer
M.E. Pakistan
Ms. Bushra Naz (On Study Leave)
Lecturer
M.E. Pakistan
Ms. Sammer Zai (On Study Leave)
Lecturer
M.E. Pakistan
Ms. Sanam Narejo (On Study Leave)
Lecturer
M.E. Pakistan
Mr. M. Ahsan Ansari (On Study Leave)
Lecturer
M.E. Pakistan
Mr. Irfan Ali Bhacho (On Study Leave)
Lecturer
M.E. Pakistan
Mr. Salahuddin Jokhio
Lecturer
M.E. Pakistan
Mr. Ali Asghar Manjotho
Lecturer
M.E. Pakistan
Mr. Fawad Ali Mangi
Lecturer
B.E. Pakistan
Ms. Syeda Adila Afghan
Lecturer
M.E. Pakistan
Ms. Shafia Qadeer Memon
Lecturer
M.E. Pakistan

Ms. Maria Shaikh

Lecturer

M.E. Pakistan

Ms. Sajida Raz Bhutto

Lecturer

M.E. Pakistan

3.2.3 Laboratory Facilities

Following state-of-the-art laboratories are available for the students where hands-on experience is provided. These laboratories provide high speed internet services in centralized environment.

1. Computing Laboratory-I
2. Computing Laboratory-II
3. Microprocessor Laboratory
4. Communication Laboratory
5. Advance Software Engineering & Research Laboratory
6. Multimedia and Visual Design Studio Laboratory
7. Data Management and Internet Laboratory
8. Software Development Laboratory

Data Warehousing environment has been established with the support of NCR Corp. Laboratories maintains high standard through latest hardware and software, support.

3.2.4 Courses

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIRST SEMESTER			
1	Computer Fundamentals	03	01
2	Applied Calculus	03	00
3	Functional English	03	00
4	Electronic Engineering	03	01
5	Basic Electrical Engineering	03	01
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SECOND SEMESTER			
1	Computer Programming	03	01
2	Digital Logic and Design	03	01
3	Linear Algebra and Analytical Geometry	03	00
4	Communication Skills	02	00
5	Islamic Studies / Ethics	02	00
6	Pakistan Studies	02	00
TOTAL		15	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
THIRD SEMESTER			
1	Computer Architecture and Design	03	00
2	Object Oriented Programming	03	01
3	Technical Report Writing	02	00
4	Differential Equations	03	00
5	Electrical Circuits	03	01
TOTAL		14	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FOURTH SEMESTER			
1	Data Structure and Algorithm Analysis	03	01
2	Microprocessors and Interfacing Techniques	03	01
3	Modeling and Simulation	02	01
4	Engineering Economics and Management	03	00
5	Fourier Series and Transforms	02	00
6	Discrete Structures	02	00
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIFTH SEMESTER			
1	Analogue and Digital Signal Processing	03	01
2	Operating Systems Design Concepts	03	01
3	Database Management Systems	03	01
4	Computer Graphics	02	01
5	Statistics and Estimation Techniques	03	00
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SIXTH SEMESTER			
1	Communication Systems	03	01
2	Control Systems and Robotics	03	01
3	Web Engineering	03	01
4	Embedded Systems	03	01
5	Professional Ethics	02	00
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SEVENTH SEMESTER			
1	Digital Image Processing	03	01
2	Data Mining Techniques	02	01
3	Computer Communication and Networks	03	01
4	Software Engineering	03	01
5	Final Year Project	00	01
TOTAL		11	05

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
EIGHT SEMESTER			
1	Mobile and Wireless Communication	03	00
2	Artificial Intelligence	03	01
3	Entrepreneurship and Leadership	02	00
4	Mobile Application Development	02	01
5	Thesis / Project	00	03
TOTAL		10	05

3.2.5 Career Opportunities

The computerization of most facets of modern business and industry, together with the great demand for technical manpower creates a multitude of possibilities. As a career option that can allow an individual to be involved in the creation and implementation of a Computer System, Computer Systems Engineers are professionals who are actively engaged in the process of matching current technology with the needs of a company. As part of this task, the Computer Systems Engineer engages in the evaluation and installation of software, hardware, and other types of support equipment into a workable network that supports a variety of functions within a corporation. The Computer Systems Engineer may function as an employee of the company, a representative of a computer components and hardware, or as an independent consultant.

The Computer Systems Engineer finds employment in a wide variety of computerized environments such as hardware, software, networking, research and development, process or information control systems or a combination of the above mentioned. The engineer might specialize further in any one of these chosen fields. Responsibilities may include maintenance or optimization of such environments. Additional functions could include the design, development, and implementation of additional or new systems, liaison with other departments such as management, production and instrumentation as well as with clients is an important aspect of his job. The dedicated Computer Systems Engineer may seek a senior post such as filling the post of System Administrator, Lead System or Project Manager.

3.3 DEPARTMENT OF ELECTRICAL ENGINEERING

3.3.1 The Department

Electrical Engineering is a branch of Engineering concerned with the study and application of electricity, electronics and electromagnetism. It also deals with the large-scale electrical systems such as power generation transmission, controlled distribution and utilization.

The department has 26 full-time faculty members. Several faculty members have won prestigious awards for their teaching and research work. Our labs serve not only undergraduate and postgraduate students but they also provide services to the public and private sectors like training, equipment testing, calibration and consultancy services. Besides normal academic activities, the department's faculty and students are involved in research and development activities in collaboration with industries.

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Our undergraduate and postgraduate students are drawn from across the country and abroad. Degrees are conferred to the undergraduate students on successful completion of four year degree program. Postgraduate students receive ME degree after successful completion of 18-months courses and research work. Currently 523 undergraduate, 150 postgraduate and 10 PhD students are enrolled in the department.

The undergraduate program emphasizes teaching Electrical Engineering fundamentals and applications as well as advanced engineering studies, enabling young graduates to work in industry or pursue higher education with great confidence. Our graduate engineers are given top priority in the public and private sectors.



3.3.2 The Faculty

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Dr. Abdul Sattar Larik
Professor
Ph.D. Pakistan
Dr. Ashfaque Ahmed Hashmani
Professor
Ph.D. Germany

Dr. Zubair Ahmed Memon
Professor
Ph.D. Pakistan
Dr. Syed Asif Ali Shah
Professor
Ph.D. Austria
Dr. Mukhtiar Ahmed Mahar
Professor
Ph.D. Pakistan
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Assistant Professor
M.E. Pakistan
Mr. Anwar Ali Sahito (On Study Leave)
Assistant Professor
M.E. Pakistan
Mr. Faheemullah Shaikh (On Study Leave)
Assistant Professor
M.E. Pakistan
Mrs. Mokhi Maan Chang
Assistant Professor
M.E. Pakistan
Mr. Muhammad Rashid Memon
Assistant Professor
M.E. Pakistan
Dr. Amir Mahmood Soomro
Assistant Professor
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Mr. Mansoor Ahmed Soomro
Assistant Professor
M.E. Pakistan

Mr. Shah Murad Tunio
Assistant Professor
M.E. Pakistan
Mr. Abdul Jabbar Memon
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M.E. Pakistan
Mr. Nayar Hussain Mirjat
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M.S. Pakistan
Mr. Aijaz Ahmed Rajper
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Mr. Abdul Hakeem Memon (On Study Leave)
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Mr. Abdul Latif Samoon (On Study Leave)
Lecturer
M.E. Pakistan
Dr. Pervez Hameed Shaikh
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Mr. Mahesh Kumar Rathi (On Study Leave)
Lecturer
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Mr. Shoaib Ahmed Khatri
Lecturer
B.E. Pakistan
Mr. Shafi Muhammad Jiskani
Lecturer
B.E. Pakistan
Mr. Zohaib Ahmed Leghari
Lecturer
B.E. Pakistan

3.3.2 Laboratory Facilities

The department of Electrical Engineering is one of the oldest and prestigious departments of the university supported and equipped with highly qualified faculty and modern laboratories namely:

1. Power System Laboratory
2. Power Electronics Laboratory
3. Electrical Machines Laboratory
4. High Voltage Engineering Laboratory
5. Clean Energy Laboratory
6. Control and Automation Laboratory
7. Electrical Circuit & Measurements Laboratory
8. Equipment and Training Laboratory
9. Applied Electricity Laboratory
10. Communication Laboratory
11. Computer Laboratory
12. Advance Computer Laboratory
13. Electrical Workshop

3.3.4 Courses

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIRST SEMESTER			
1	Electrical Workshop Practice	00	01
2	Applied Physics	03	01
3	Introduction to Computing & Programming	03	01
4	Applied Calculus	03	00
5	Functional English	03	00
TOTAL		12	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SECOND SEMESTER			
1	Linear Circuit Analysis	03	01
2	Linear Algebra and Analytical Geometry	03	00
3	Pakistan Studies	02	00
4	Islamic Studies	02	00
5	Communication Skills	02	00
6	Applied Mechanics	03	01
TOTAL		15	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
THIRD SEMESTER			
1	Electronic Devices & Circuits	03	01
2	Digital Logic Design	03	01
3	Electrical Network Analysis	03	01
4	Differential Equations and Fourier series	03	00
5	Applied Thermodynamics	03	00
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FOURTH SEMESTER			
1	Theory of Electromagnetic Field	03	00
2	Electrical Machines	03	01
3	Applied Electronics	03	01
4	Microprocessor Systems	03	01
5	Complex Variables & Transforms	03	00
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIFTH SEMESTER			
1	Advanced Electrical Machines	03	01
2	Electrical Power Transmission	03	01
3	Instrumentation & Measurement	03	01
4	Numerical Analysis & Computer Applications	03	01
5	Technical Writing	02	00
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SIXTH SEMESTER			
1	Power Generation	3	1
2	Linear Control Systems	3	1
3	Communication Systems	3	1
4	Power Economics & Management	3	0
5	Statistics and Probability	3	0
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SEVENTH SEMESTER			
1	Power System Analysis	03	01
2	Electrical Machines Design & Maintenance	03	01
3	High Voltage Engineering	03	01
4	Power Distribution & Utilization	03	01
5	Senior Design Project -I	00	02
TOTAL		12	06

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
EIGHT SEMESTER			
1	Power Electronics	03	01
2	Power System Stability & Control	03	01
3	Power System Protection	03	01
4	Senior Design Project-II	00	04
TOTAL		09	07

3.3.5 Career Opportunities

Electrical engineering is a field of Engineering that generally deals with the study and application of electricity, electronics and electromagnetism. Electrical engineering, an amalgamation of what is now called Electrical, Electronics and communication, instrumentation; computer engineering etc. is the largest of all Engineering disciplines. Four well recognized branches of electrical engineering are power, communications, electronics and control systems. In a broader sense, this field covers a range of sub-disciplines including those that deal with power, optoelectronics, digital electronics, analogue electronics, artificial intelligence, control systems, electronics, signal processing and telecommunications. Overlapping of this field with computer has opened up the door to a career in almost any industry. Following are the few companies and institutions in which the Electrical graduates can find job.

1. WAPDA and Transmission Companies
2. Fertilizer Industries
3. Chemical Industries
4. Textile Industries
5. Pharmaceutical
6. Mechanical & Automobile
7. K-Electric
8. Pakistan Atomic Energy Commission
9. Oil & Gas Companies
10. Research Institutes

3.4 DEPARTMENT OF ELECTRONICS ENGINEERING

3.4.1 The Department

Electronic Engineering is an increasingly important engineering discipline that significantly affects the other disciplines of engineering. It is in great demand in both developed and developing nations. Continual advances in electronic engineering in the areas of materials, processes, devices, and circuits have been leading to rapid advances, in the existing applications of engineering as well as in the emergence of new applications. To harness the full potential of electronic engineering developments and further advance the state of electronic technology, it is important to have strong programmes to educate and train individuals in this key discipline of engineering.

Electronic Engineering artifacts play major role in the evolution of mankind and culture. Today, the Electronic Engineering profession and

the education of engineers are challenged by the rapidly changing nature of those engineering systems which determine what is meant by 'modern technology'. The advent of Microprocessor Technology has probably made Electronic Engineering the exemplary technology of this century, along with emergence of new species, with higher levels of integration. The existing and potential uses and applications of Electronics are multitudinous. Indeed it is difficult to point to any industrial or commercial area which may not eventually be affected by this technology.

The Department of Electronic Engineering offers degrees at undergraduate and postgraduate level equally. It offers:

- B.E. (Electronic Engineering)
- M.E. (Electronic System Engineering & Embedded System) under the umbrella of Institute of Information & Communication Technologies.

It fulfills the more acute need of the development of the country by producing more qualified Engineers at undergraduate & postgraduate levels. The programmes offered provide technical manpower for the development and production of the Electronic Engineering in the country to provide qualified human resources as engineers and technology experts to develop indigenous capability of planning, designing and executing various projects in Electronic Engineering.

The field of Electronic Engineering encompasses the knowledge of electronic circuits & devices and their applications. The students learn variety of subjects of diverse fields including, Microprocessors & Interfacing, Automation and Robotics, Analog & Digital Communication,



Wired & Wireless Communications, Signal Processing, Industrial Electronics, Integrated Electronics, Artificial Neural Networks, Instrumentation & Control, Embedded System, Telecommunication Systems & Applications, Sequential Circuit Design, Laser & Fiber Optics, Microwave Engineering, Electromagnetic Waves & Radiating System, Computer Communication & Networking, etc.

The department has played major role in sending undergraduate and postgraduate students abroad (Europe and USA) on scholarships and short visits on Erasmus Mundus Program and US Fulbright Program.

Frequent visits to industries are also organized by the department to acquaint students with practical environment. Specifically internship program is launched in collaboration with local industry during summer break for third year and final year students. In addition to that, students are also encouraged to participate in Seminars, Conferences and Software Competitions, such as IEEE student seminar, A.Q. Khan Software at national level software competition, MATLAB competition. Final year project competition is also held annually on and around campus. The department has centrally air-conditioned seminar library named after the late Professor M.D. Makhdoom.

The courses taught are regularly updated to keep abreast of new knowledge and development. It is also mandatory for student to undertake a project during their final year, which helps them to develop their practical skills as young design engineers. On behalf of our quality work and intention towards developing industrial interaction a “Top Quality Centralized Instrumentation Center (TQCIC)” is established in our department. The aims & objectives of TQCIC are as follows:

- To develop interaction between industries and the university.
- To design & develop instruments with cost effectiveness.
- To provide the cost effective Hi-Tech solutions & modernize the existing Instrumentation in our industry & educational institutions.
- To provide consultancy in the areas of Industrial Automation & Control, Communication & Electronics.
- To provide the trainings in the areas of Instrumentation, PLCs, PID Controllers, PCB Designing & Fabrication & Advanced Simulation Softwares.
- To provide the services & solutions in Industrial Electronic equipments.

This department has recently established Mentor Graphics Electronic Design Automation (EDA) Laboratory and it has become the only EDA Mentor Graphics Authorized Training Partner (ATP) in Sindh Province.

- This department's two senior faculty members got training in EDA Tools Specialization from Mentor Graphics Singapore.
- This department has good number of faculty professionals to handle these tools.
- The Electronic Department has recently introduced the new course like “FPGA Based System Design”, “Embedded System Design & VLSI Design” courses at Bachelor as well as Master level.
- This department has arranged a two days workshop on EDA Tools in collaboration with authorized dealers (RASTEK Technologies). Thus becoming leading institute in the province to conduct such workshop first time.
- Department frequently arranges the industry oriented seminars/trainings based on job market requirements.
- Department aims at Problem & Project Based Learning (PBL). In order to encourage PBL, many project competitions and exhibitions are organized on regular basis.

3.4.2 Laboratory Facilities

The department is equipped with state-of-the-art laboratories such as:

1. Basic Electronics Laboratory
2. Instrumentation & Control Laboratory
3. Advanced Electronics Laboratory
4. Digital Signal Processing Laboratory
5. Digital Electronics & Microprocessor Laboratory
6. Advanced Computer Applications Laboratory
7. Communication System Laboratory
8. Interactive Electronic Design Automation Laboratory
9. Top Quality Centralized Instrumentation Laboratory-I
10. Top Quality Centralized Instrumentation Laboratory-II
11. Project Laboratory
12. EDA Tools Laboratory
13. PC Repair Shop

3.4.3 The Faculty

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B.E. Pakistan

3.3.4 Courses

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIRST SEMESTER			
1	Functional English	03	00
2	Applied Calculus	03	00
3	Introduction to Computing	02	01
4	Applied Physics	03	01
5	Professional Ethics	02	00
6	Electronics Workshop	00	01
TOTAL		13	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SECOND SEMESTER			
1	Linear Algebra & Analytical Geometry	03	00
2	Computer Programming	02	01
3	Basic Electronics	03	01
4	Electrical Circuits	03	01
5	Communication Skills	02	00
6	Islamic Studies/Ethics	02	00
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
THIRD SEMESTER			
1	Electronic Circuit Design	03	01
2	Digital Electronics	03	01
3	Measurements & Instrumentation	02	01
4	Differential Equations & Fourier Series	03	00
5	Engineering Management	02	00
6	Computer Aided Engineering Design	00	01
TOTAL		13	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FOURTH SEMESTER			
1	Sequential Circuit Design	02	01
2	Electromagnetic Fields	03	00
3	Integrated Electronics	03	01
4	Electrical Machines	02	01
5	Complex Variables & Transforms	03	00
6	Pakistan Studies	02	00
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIFTH SEMESTER			
1	Signals Processing	03	01
2	Microprocessor & Interfacing Techniques	03	01
3	Probability & Random Signals	03	00
4	Power Electronics	02	01
5	Numerical Methods	03	01
TOTAL		14	05

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SIXTH SEMESTER			
1	Analog & Digital Communication	03	01
2	Control Systems	03	01
3	Digital Instrumentation Systems	02	01
4	FPGA-Based System Design	03	01
5	Microwave Engineering	03	00
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SEVENTH SEMESTER			
1	Digital Control Systems	03	01
2	Embedded Systems Design	03	01
3	Laser & Fiber Optics	03	00
4	Computer Communication & Networking	03	01
5	Technical Report Writing & Presentation Skills	02	00
6	Electronic Engineering Project-1	00	01
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
EIGHT SEMESTER			
1	Advanced Communication Systems	03	00
2	Mechatronics Applications	03	00
3	Artificial Intelligence	03	01
4	Electronic Engineering Project -2	00	03
TOTAL		09	04

3.4.5 Career Opportunities

With acquired educational and technical skill set, an Electronic engineer can find a competitive position in well reputed public and private sector organizations for last several years. Highly recognized organizations such as SUPARCO, KE, Anglo Pakistan, PTCL, etc arranges on campus recruitment test hiring candidates straightaway.

3.5 DEPARTMENT OF SOFTWARE ENGINEERING

3.5.1 The Department

The Department of Software Engineering is home to research and academic units that address issues and recent advances in Software Engineering. The department provides research areas and cutting edge facilities in Software engineering. The Goal has been, and continues to be, to provide a high degree programme in Software Engineering, a programme that prepares students for lifelong learning as they take on professional careers in computing. Software Engineering program enables to gain a thorough understanding of the role of IT in enterprise and how information systems impact on business and organizational processes.

The department offers a range of courses that teach the fundamentals of programming to advanced topics in computing such as software testing and software architecture and design etc. The courses are designed to equip students with advanced software engineering skills so that they are prepared to play a creative and leading role in the professional and research community.



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Students will gain understanding, knowledge, and fluency in:

- The art of programming, including abstraction, algorithms, data structures, and web development.
- Software engineering fundamentals, such as functional and object-oriented styles of programming and models of computation.
- Core tenets of Software engineering, such as testing, project management, requirement engineering.
- How to design large programs to make them readable, maintainable, and efficient.

3.5.2 The Faculty

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Prof. Tahseen Hafiz
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Ph.D. United Kingdom
Dr. Sania Bhatti
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Assistant Professor
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Assistant Professor
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Ms. Isma Farah Siddiqui (On Study Leave)
Assistant Professor
M.E. Pakistan
Mr. Din Muhammad Sangrasi
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Mr. Salahuddin Sadar
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Assistant Professor
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Dr. Naeem Ahmed
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Mr. Zahid Hussain Khaskheli
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Ms. Sharmeen Abid
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Ms. Memoona Sami
Lecturer
B.E. Pakistan
Mr. Vijdan Khaliq
Lecturer
B.E. Pakistan
Mr. Junaid Ahmed Baloch
Lecturer
B.E. Pakistan

3.5.3 Laboratory Facilities

To meet the latest trends in software and hardware technology, the department has the following state-of-the-art laboratories, where students are trained to meet the future needs of the technology.

1. Computational Linguistic and Interactive E-Learning Laboratory
2. Visual Informatics, Image Processing, 3-D Modeling, Visualization Laboratory
3. Data Warehousing and Management Laboratory
4. Software Quality Assurance and Testing Laboratory
5. Software Research and Development Laboratory
6. Parallel Programming, Cluster Computing, Grid Research and Storage Management Laboratory

3.5.4 Courses

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIRST SEMESTER			
1	Applied Calculus	03	00
2	Basic Electrical Engineering	03	01
3	Computer Programming	03	01
4	Functional English	03	00
5	Electronic Engineering	03	01
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SECOND SEMESTER			
1	Data Structures & Algorithms	03	01
2	Digital Computer & Logic Design	03	01
3	Linear Algebra & Analytical Geometry	03	00
4	Pakistan Studies	02	00
5	Islamic Studies / Ethics	02	00
6	Professional Ethics	02	00
TOTAL		15	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
THIRD SEMESTER			
1	Software Economics & Management	02	00
2	Operating Systems Concepts	03	01
3	Computer Architecture & Organization	03	00
4	Information Systems	03	00
5	Differential Equation & Fourier series	03	00
TOTAL		14	01

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FOURTH SEMESTER			
1	Object Oriented Programming	03	01
2	Database Management & Administration	03	01
3	Operations Research	03	00
4	Microprocessor Technologies	03	01
5	Laplace Transforms & Discrete Mathematics	03	00
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIFTH SEMESTER			
1	Theory of Automata & Formal Languages	03	00
2	Digital Communication	03	01
3	Human Computer Interaction	03	00
4	Software Requirement Engineering	03	00
5	Mobile Programming	03	01
TOTAL		15	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SIXTH SEMESTER			
1	Computer Networks & Management	03	01
2	Software Project Management	03	01
3	Statistical Methods & Estimations	03	00
4	Artificial Intelligence Concepts & Techniques	03	01
5	Technical Report Writing & Presentation Skills	02	00
TOTAL		14	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SEVENTH SEMESTER			
1	Interactive Multimedia Systems & Graphics	03	01
2	Web Technologies	03	01
3	Software Design & Architecture	03	01
4	Computer Vision	03	01
5	Thesis/Project	00	01
TOTAL		12	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
EIGHT SEMESTER			
1	Data Warehousing & Mining Techniques	03	01
2	Distributed Computing	03	01
3	Software Testing & Quality Assurance	03	01
4	Thesis/Project	00	03
TOTAL		09	06

3.5.5 Career Opportunities

Software engineering is at the core of Information Technology and the increasing need for computers in the daily life of people has made it imperative that new designs and new computer software systems be developed so that advancing technology can be applied in a growing range of applications. The work assigned to people who are called software engineers evolves very fast, which reflects the changes in technology as well as the increase of new specializations which keep cropping up in this field along with the preferences and practices of employers. The principles and knowledge of computer science, engineering, and mathematical analysis are employed by computer software engineers for designing, developing, testing, and deploying software systems.

Our graduates have gone on to have very successful careers in industry and research. Our graduates work for software consultancy companies, specialized software development companies and IT departments of large institutions (financial, telecommunication and public sector). Recent employers include, Software Houses, Banks, NADRA, PIA, PTCL, OGDCL, SSCG, WAPDA, SPARCO e.t.c)

3.6 DEPARTMENT OF TELECOMMUNICATION ENGINEERING

3.6.1 The Department

Mehran university of Engineering and technology has got the privilege to establish the Telecommunication Department for the first time in the



history of all Public and Private sector universities of Pakistan. Keeping in view the tremendous growth of Telecom Sector, there is great scope and consumption of Telecom Engineers, Experts and Solution Providers; therefore in year 2001 MUEET started the program to produce graduates exclusively in Telecommunication Engineering by bifurcating the Electronic Department. The department would like to augment its existing programs to produce the high quality Telecom Personnel in various specialized areas such as Mobile and Wireless Communication, Terrestrial Satellite Communication, Multimedia & Networking under the establishment of Institute of Communication Technologies (ICT). HEC has already selected MUEET as an ICT hub.

Objectives:

1. To produce quality graduates in Telecommunication Engineering.
2. To produce high quality Telecom Professionals and skilled manpower for industry, S&T organizations and educational institutions of the country in various specialized and fast emerging areas.
3. To offer research facilities in the field of Information and Communication Technologies in order to provide basis for industrial development in this fast expanding field.
4. To facilitate Hi-Tech research in the field of ICT.
5. To provide consultancy services in relatively more traditional Telecom Sectors as well as in sophisticated new technologies and services.
6. Faculty Development.
7. To develop indigenous technology in order to reduce dependence on developed countries and to improve socio-economic condition of the country.
8. To develop strategy for increasing Tele-density of the country.
9. To offer PhD, M.Phil & Master's degree programs in the area of ICT.

3.6.2 The Faculty

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Ms. Shanzah Shaikh
Assistant Professor
M.E. Pakistan
Mr. Sajjad Ali Memon (On Study Leave)
Assistant Professor
M.E. Pakistan
Mr. Riaz Ahmed Soomro
Assistant Professor
M.E. Pakistan

Mr. Ayaz Ahmed Shaikh (On Study Leave)
Lecturer
M.E. Pakistan
Ms. Saima Hafeez
Lecturer
M.E. Pakistan
Mr. Hyder Bux Mangrio
Lecturer
B.E. Pakistan
Mr. Shakeel Ahmed Laghari
Lecturer
M.E. Pakistan
Mr. Mehran Memon
Lecturer
M.E. Malaysia
Mr. Faisal Ahmed Memon
Lecturer
M.E. Pakistan
Mr. Saadullah Kalwar
Lecturer
M.E. Pakistan
Mr. Umair Mujtaba Qureshi
Lecturer
M.E. Pakistan
Ms. Zuneera Aziz Memon
Lecturer
M.E. Pakistan
Mr. Umair Ahmed Korai
Lecturer
M.E. Pakistan
Mr. Abi Waqas Memon
Lecturer
M.E. Pakistan
Mr. Syed Rizwan Ali Shah
Lecturer
MBA Pakistan

3.6.3 Courses

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIRST SEMESTER			
1	Functional English	03	00
2	Introduction to Programing	03	01
3	Applied Calculus	03	00
4	Applied Physics	03	01
5	Professional Ethics	02	00
TOTAL		14	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SECOND SEMESTER			
1	Basic Electronics	03	01
2	Object Oriented Programming Data Structure & Algorithms	03	01
3	Communication Skills-1	02	00
4	Introduction to Simulation Tools	00	01
5	Linear Algebra & Analytical Geometry	03	00
6	Islamic Studies/Ethics	02	00
7	Pakistan Studies	02	00
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
THIRD SEMESTER			
1	Amplifier & Oscillators	03	01
2	Differential Equation & Fourier Series	03	00
3	Digital Electronics	03	01
4	Electrical Circuits	03	01
5	Engineering Management	03	00
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FOURTH SEMESTER			
1	Complex Variables & Transforms	03	00
2	Electromagnetics	03	00
3	Linear Integrated Circuits & Filters	03	01
4	Micro Controller Interfacing	03	01
5	Sequential Circuit Design	03	01
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIFTH SEMESTER			
1	Analog & Digital Communication	03	01
2	Numerical Analysis & Computer Application	03	01
3	Signal & Systems	03	01
4	Technical Report Writing & Presentation Skills-1	02	00
5	Wave Propagation & Antennas	03	01
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SIXTH SEMESTER			
1	Computer Communication & Networks	03	01
2	Digital Signal Processing	03	01
3	Microwave Engineering	03	00
4	Opto-Electronics	03	01
5	Probability & Stochastic Processes	03	00
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SEVENTH SEMESTER			
1	Fiber Optics Communications	03	01
2	Satellite Communication	03	00
3	Transmission & Switching Systems	03	00
4	Wireless Communication	03	01
TOTAL		12	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
EIGHT SEMESTER			
1	Broadband Digital Networks	03	01
2	Mobile Network Planning	03	00
3	Multimedia Systems & Networking	03	01
4	Thesis/Project	00	03
TOTAL		09	05

3.6.4 Laboratory Facilities

Keeping in view the industry demands, the department of Telecommunication Engineering has established laboratories accordingly, in order to furnish students with the latest technological advancement and make them able to meet with the market requirements. List of the available laboratories;

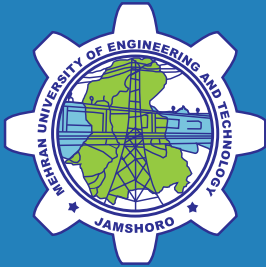
1. Analog and Digital Communication Laboratory
2. Project Laboratory
3. Transmission and Switching Laboratory
4. Networking and Protocol Design Laboratory
5. Optical Communication and Photonics Laboratory
6. PC Laboratory-I
7. Advanced Computer Laboratory
8. PC Laboratory-II
9. Radio Communication and Transmission Laboratory
10. Digital Signal Processing Laboratory
11. Cellular Communication Laboratory

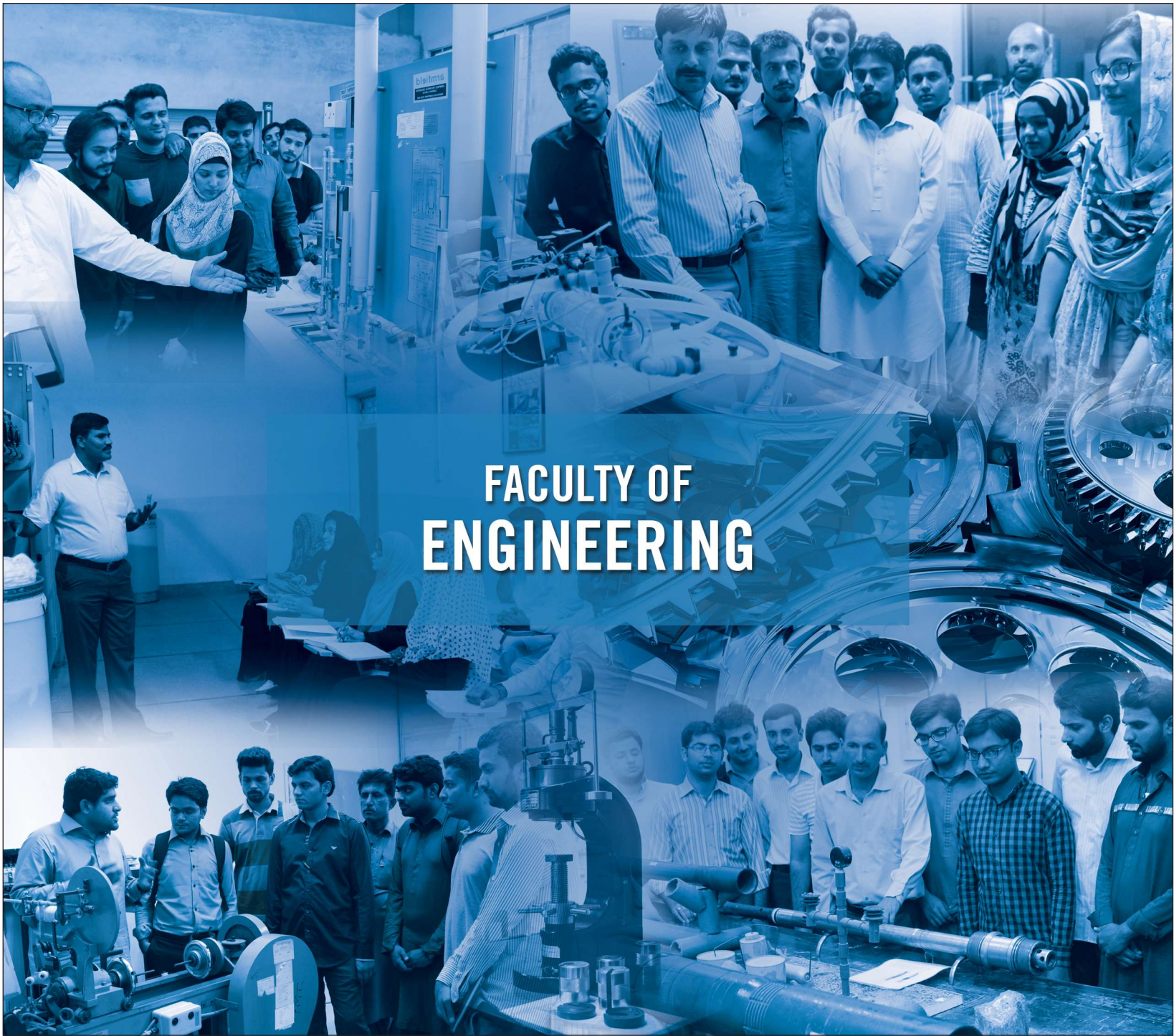
3.6.5 Career Opportunities

Telecommunication engineers work within a number of industries based on: Internet and computing technologies, computer and telephone networks, radio wave transmission & reception, satellite communication, radar and navigation, etc. Some engineers concentrate on applying technical knowledge, whilst others focus on managerial activities. Many posts include elements of both managerial and technical responsibilities. The technical aspect of the role includes using specialist knowledge to design and deliver solutions, as well as providing technical guidance to others within the organization.

- Telecommunication Industries Pakistan
 - Pakistan Telecommunication Corporation Limited (PTCL)
 - Pakistan Telecommunication Authority (PTA)
 - Wateen (Warid Telecom)
 - Mobilink (VimpelCom)
 - Telenor (Telenor Group)
 - Zong (China Mobile)
 - Ufone (PTCL+Ehtisalat)
 - SCO (Special Communication Organization initially started from Azad Kashmir & Gilgit Baltistan, now available throughout Pakistan)

- WLL Companies
 - PTCL
 - Great Bear Int'l (Pvt.) Limited
 - Cyber Internet Services Limited
 - DV Com Data (Pvt.) Limited
 - Wi-Tribe Pakistan Limited
 - Telearcard Limited
 - GO CDMA (Telearcard Group)
 - Supernet (Telearcard Group)
 - WorldCall Wireless
- Telecommunication Vendors in Pakistan
 - Siemens
 - Huawei
 - ZTE
 - Myson Telecom
 - Combit Telecom
 - People's Logic Telecom
 - Apollo Telecom
- Satellite TV Channels
 - GEO Group of Channels
 - ARY Group of Channels
 - AJ Group of Channels
 - KTN Group of Channels
- IT Oriented Jobs
 - <http://itjobsjunction.com/telecom-and-it-subcons-list-in-pakistan/>
- Some Other Sectors
 - University Oriented Jobs (R&D + IT Sector)
- Pakistan Forces
 - Pakistan Army (Communication Core)
 - Pakistan Navy (Communication Sector)
 - Pakistan Air
 - MIC
 - SUPARCO
- Aeronautical Companies
 - Civil Aviation Authority of Pakistan
 - Civil Aviation Training Institute
 - Pakistan International Airlines
 - Airblue
 - Air Indus
 - Shaheen Air





FACULTY OF ENGINEERING

4.1 DEPARTMENT OF CHEMICAL ENGINEERING

4.1.1 The Department

The Chemical Engineering Department was established in 1970 in the Institute of Chemistry University of Sindh Jamshoro. Prof. Dr. Syed Wadal Shah was the founder of the Department. The Scheme envisaged providing teaching and training facilities at the undergraduate level in the field of Chemical Engineering. After one year, the department was shifted to "Sindh University Engineering College" Jamshoro.

Chemical Engineering mainly concerns with design, manufacture, operation, management and maintenance of an industrial plant or a laboratory involving chemical and biochemical processes. It is a multi-disciplinary field having significant level of mechanical, electrical, electronic and instrumentation components in addition to process equipment. A chemical engineer has also to deal with bio-chemical, environmental and materials problems. The Bachelor's degree course has been designed accordingly to train the students in all these fields including the basic subjects such as English and Chemistry and more specialized subjects of chemical engineering. Well-equipped and relevant laboratories have also been established in the Department for the practical training of the students. In addition, industrial tours to chemical and biochemical industries are organized for the students in order to expose them to real plants working conditions.

The Chemical Engineering Department also offers a postgraduate course leading either to a Diploma or Master of Engineering (M.E.) degree; the



later also includes a dissertation based on research or some other kind of study of a problem or task of practical nature. The department has also manpower and laboratory facilities to undertake research leading to M.Phil. and Ph.D. degrees.

The department also has some International collaboration programs to enhance the standard of higher education. The department ran a BC-HEC linkage program. Under this program various activities were carried out that included the faculty visit to Brunel University, conferences, seminars, workshops & training courses and research on "Waste Management". Through DeIPHE research project on Urban Water Demand Management, an international conference on Sustainable Water Management was organized at MUET Jamshoro in September, 2010, which was participated by more than 300 delegates including 28 foreign delegates from USA, UK, Australia, Austria, Germany, Netherlands, Nepal, India, Indonesia, Malaysia and Bangladesh. Recently, through Pak-US joint Academic and Research Program, the Chemical Engineering of MUET has developed partnership with Institute of Chemical and Environmental Engineering, University of Arizona, USA to conduct research on treatment of ground water by using Iron ore for removal of arsenic.

Department has also established Coal Research Center (CRC) for promotion in research in coal technology. Department of chemical Engineering organized "Coal Exhibition" during 1st international Coal conference in Nov.2013. Various professional development training courses are also organized in the department such as; on Maintenance Management System (MMS) in 2006, introduction to HYSYS 3.2 for Process Engineers in 2011 & 2012, a comprehensive introduction to "Computational Fluid Dynamics(CFD)" in 2013, Training course of ANSYS FLUENT® 6.3.26 and GAMBIT® 2.2 software 2013.

4.1.2 The Faculty

Prof. Dr. Syed Farman Ali Shah

Chairman of the Department

Phone: 022-2772293 Ext. 4400

Dr. Syed Farman Ali Shah

Professor

Ph.D. Pakistan

Dr. Khadija Qureshi

Professor

Ph.D. Pakistan

Dr. Shaheen Aziz
Professor
Ph.D. Pakistan
Dr. Inamullah Bhatti
Professor
Ph.D. Malaysia
Dr. Abdul Rehman Memon
Associate Professor
Ph.D. United Kingdom
Mr. Ashfaq Hussain Pirzada
Assistant Professor
M.E. Pakistan
Dr. Zeenat M. Ali
Assistant Professor
Ph.D. Pakistan
Dr. Aziza Aftab
Assistant Professor
Ph.D. Pakistan
Mr. Manzoor Ul Haq Rajput
Assistant Professor
M.E. Pakistan
Mr. Khan M. Qureshi (On Study Leave)
Assistant Professor
M.E. Pakistan
Mr. Zulfiqar Ali Bhatti (On Study Leave)
Assistant Professor
M.Sc. United Kingdom
Mr. Imran Nazir Unar (On Study Leave)
Assistant Professor
M.E. Pakistan
Mr. Shuaib Shaikh (On Study Leave)
Assistant Professor
M.E. Pakistan
Mr. Masroor Ahmed Abro
Lecturer
M.E. Pakistan

Mr. Zulfiqar Ali Solangi
Lecturer
M.E. Pakistan
Ms. Aisha Kousar
Lecturer
M.E. Pakistan
Mr. Sikander Mustafah Almani
Lecturer
B.E. Pakistan
Mr. Abdul Qadeer Laghari
Lecturer
B.E. Pakistan
Mr. Arshad Iqbal Jarwar
Lecturer
B.E. Pakistan

4.1.3 Laboratory Facilities

The numbers of laboratories have been established in the department, which include;

1. Analytical Chemistry Laboratory
2. Biochemical Engineering Laboratory
3. Computer Laboratory
4. Fuels & Combustion/Environmental Engineering Laboratory
5. Fluid Mechanics Laboratory
6. General Chemistry Laboratory
7. Heat Transfer Laboratory
8. Instrumentation and Control Laboratory
9. Polymer Engineering Laboratory
10. Quality Control Laboratory
11. Unit Operations Laboratory

4.1.4 COURSES

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIRST SEMESTER			
1	Inorganic & Organic Chemistry	03	01
2	Pakistan Studies	02	00
3	Islamic Studies/ Ethics	02	00
4	Applied Calculus	03	00
5	Basic Chemical Engineering	02	00
6	Engineering Drawing & Graphics	02	02
7	Workshop Practice	00	02
TOTAL		14	05

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SECOND SEMESTER			
1	Linear Algebra & Analytical Geometry	03	00
2	Functional English	03	00
3	Engineering Mechanics	03	00
4	Basic Electrical Technology	03	01
5	Chemical Process Technology	03	00
6	Chemical Process Calculations-I	02	00
TOTAL		17	01

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
THIRD SEMESTER			
1	Physical & Analytical Chemistry	03	00
2	Engineering Economics	02	00
3	Engineering Materials	02	00
4	Chemical Process Calculations-II	03	00
5	Engineering Thermodynamics	03	02
6	Differential Equations and Fourier Series	03	00
TOTAL		16	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FOURTH SEMESTER			
1	Chemical Engineering Thermodynamics	03	00
2	Introduction to Computers and C++ Programming	03	01
3	Complex Variable and Laplace Transforms	03	00
4	Chemical Engineering Fluid Mechanics-I	03	00
5	Particulate Technology	03	01
TOTAL		15	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIFTH SEMESTER			
1	Maintenance Engineering & Risk Management	02	00
2	Fuels & Energy	03	01
3	Heat Transfer Operations	03	01
4	Chemical Engineering Fluid Mechanics-II	03	01
5	Mass Transfer	03	01
TOTAL		12	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SIXTH SEMESTER			
1	Chemical Engineering Plant Design	03	00
2	Simultaneous Heat & Mass Transfer	03	01
3	Numerical Analysis & Computer Applications	03	01
4	Chemical Engineering Kinetics	03	00
5	Quality Control	02	01
TOTAL		14	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SEVENTH SEMESTER			
1	Biochemical Engineering	03	01
2	Transport Phenomena	03	00
3	Instrumentation & Process Control	03	01
4	Petroleum Refinery Engineering	03	00
5	Pollution Control Engineering	03	01
TOTAL		13	05

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
EIGHT SEMESTER			
1	Industrial Management	03	00
2	Chemical Process Design & Simulation	03	01
3	Petrochemicals	03	01
4	Nuclear Engineering	03	00
5	Thesis/ Project	00	02
TOTAL		12	04

4.1.5 Career Opportunities

A chemical engineer may be involved in industry or university research where they are tasked in designing and performing experiments to create new and better ways of production, controlling pollution, conserving resources and making these processes safer. They may be involved in designing and constructing plants as a project engineer. In this field, the chemical engineer uses their knowledge in selecting plant equipment and the optimum method of production to minimize costs and increase profitability. After its construction, they may help in upgrading its equipment. They may also be involved in its daily operations. Chemical engineers may be permanently employed at chemical plants to manage operations. Alternatively, they may serve in a consultant role to troubleshoot problems, manage process changes and otherwise assist plant operators.

Many graduates of the Chemical Engineering Department are now serving in important public as well as private sector organizations within Pakistan for example Engro Chemicals, Engro Polymers, FFBL, NRL, PRL, BYCO Refinery, PCSIR, OGDCL, SSGC, SNGPL, BHP Oil and gas, OMV Oil and gas PPL, Novatex etc and even outside the country.

4.2 DEPARTMENT OF INDUSTRIAL ENGINEERING

4.2.1 The Department

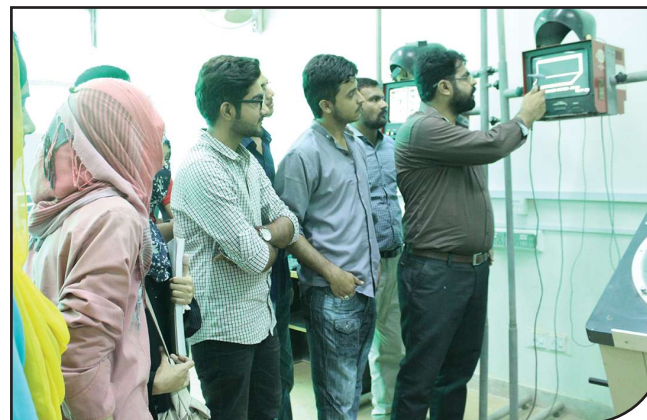
Industrial Engineering is a rapidly developing and broad professional discipline. It deals with design, installation operation and management of integrated systems of people, material, and equipment, drawing upon specialized knowledge of physical and social sciences and technology, it especially deals with managerial problems requiring knowledge of fundamental science and engineering practice for their solutions.

Industrial Engineering figures out of how to do things better. They are more concerned with increasing productivity through the management of people, methods of business organization and technology. They work to eliminate waste of time, money, materials, energy and other commodities. This is why many industrial engineers end up being promoted into management positions.

Another important feature of industrial engineering is its flexibility. Industrial engineering is not restricted only to manufacturing activities. It includes service sectors, like, Airlines, Banking, Education, Waste-Management, Health-care, Transportation, Distribution, etc. Thus, the

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scope of Industrial Engineering is quite big and certainly not restricted within the boundary of industry (factory).

Department of Industrial Engineering and Management offers the degree course, taking into consideration the technical and professional requirements of the discipline and perspective employer organizations. The department is equipped with adequate number of laboratories in the field of Quality Control, Time and Motion Study, Operations Research, Computer Aided Engineering with sophisticated software's. The department has also launched a postgraduate program since 2004.

4.2.2 The Faculty

Prof. Dr. Hussain Bux Marri

Chairman of the Department

Phone: 022-2771247 Ext. 4700

Dr. Hussain Bux Marri

Professor

Ph.D. United Kingdom

Dr. Anwaruddin Tanwari

Professor

Ph.D. United Kingdom

Dr. Murlidhar Nebhwani

Professor

Ph.D. Pakistan

Dr. Abdul Salam Soomro
Professor
Ph.D. Malaysia
Mr. Aitbar Ali Abbasi
Associate Professor
M.E. Pakistan
Dr. Ghulam Yasin Shaikh
Associate Professor
Ph.D. Pakistan
Dr. Muhammad Saleh
Associate Professor
Ph.D. United Kingdom
Mr. Abdul Qayoom Lakhair
Assistant Professor
B.E. Pakistan
Mr. Mukhtiar Ali Korai
Assistant Professor
B.E. Pakistan
Mr. Hafiz Karim Bux Indhar
Assistant Professor
M.E. Pakistan
Dr. Shakeel Ahmed Shaikh
Lecturer
Ph.D. United Kingdom
Mr. Muhammad Ali Khan
Lecturer
B.E. Pakistan
Ms. Sonia Irshad Mari (On Study Leave)
Lecturer
B.E. Pakistan
Mr. Muhammad Saad Memon (On Study Leave)
Lecturer
B.E. Pakistan
Mr. Ali Arsalan Siddiqui
Lecturer
M.S. United Kingdom

4.2.3 Laboratory Facilities

The Department of Industrial Engineering has following laboratories. All the laboratories are well equipped with advanced and conventional testing equipment.

1. Time and Motion laboratory
2. Precision Laboratory
3. Operation Research Laboratory
4. Computer Aided Engineering Laboratory

4.2.4 COURSES

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIRST SEMESTER			
1	Applied Calculus	03	00
2	Islamic Studies/Ethics	02	00
3	Pakistan Studies	02	00
4	Industrial Economics and Management	03	00
5	Engineering Drawing & Computer Graphics	03	01
6	Electrical Technology	03	01
TOTAL		16	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SECOND SEMESTER			
1	Linear Algebra Differential Equations & Analytical Geometry	03	00
2	Basic Business Management	03	00
3	Functional English	03	00
4	Mechanics of Materials	03	01
5	Manufacturing Processes	03	02
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
THIRD SEMESTER			
1	Materials & Processes	03	01
2	Management Information Systems	03	00
3	Mechanics of Machines	02	01
4	Basic Thermodynamics	03	01
5	Introduction to Com & C++ Programming	03	01
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FOURTH SEMESTER			
1	Production Planning and Control	03	00
2	Industrial Probability and Estimations	03	01
3	Managerial Accounting	03	00
4	Basic Machine Design	03	01
5	Fluid Mechanics	03	01
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIFTH SEMESTER			
1	Entrepreneurship	03	00
2	Numerical Analysis & Com. Application (N.A.C.A)	03	01
3	Basic Operations Research	03	01
4	Manufacturing Strategy	03	00
5	Instrumentation & Control	03	01
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SIXTH SEMESTER			
1	Organizational Behavior	03	00
2	Work Study & Methods Engineering	03	01
3	Production Systems Design	03	00
4	Project Management	03	01
5	Environmental Management	02	00
TOTAL		14	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SEVENTH SEMESTER			
1	Human Resources Management	03	00
2	Human Factors Engineering	03	01
3	Advanced Operations Research	03	01
4	Industrial Maintenance and Safety	03	00
5	Supply Chain and Logistical Management	03	00
TOTAL		15	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
EIGHT SEMESTER			
1	Quality and Reliability Control	03	00
2	Marketing Principles and Practices	03	00
3	Principles of Decision Making	03	00
4	Computer Integrated Manufacturing	03	01
5	Dissertation/Project	00	04
TOTAL		12	05

4.2.5 Career Opportunities

Undergraduates in the industrial engineering program take courses in areas of production planning, engineering economics, computer integrated manufacturing, human factors and ergonomics, operations research, statistics, principles of decision making, supply chain management and quality management.

Industrial engineering leads to fascinating careers in industries as diverse as airline operations, automotive manufacturing, and financial services. As an Industrial Engineering graduate, you'll have maximum flexibility to pursue your goals for advancement in management as well as systems design.

Industrial engineering is an expanding profession. They look for new ways to reduce costs and raise productivity, they increasingly will turn to industrial engineers to develop more efficient processes and reduce costs, delays, and waste. This should lead to job growth for these engineers, even in manufacturing industries with slowly growing or declining employment overall. Because their work is similar to that done in management occupations, many industrial engineers leave the occupation to become managers. Many openings will be created by the need to replace industrial engineers who transfer to other occupations or leave the labor force.”

4.3 DEPARTMENT OF MECHANICAL ENGINEERING

4.3.1 The Department

Department of Mechanical Engineering was founded in 1963, offering a four year undergraduate program leading to the degree of Bachelor of Engineering. Mechanical Engineering is one of the most popular undergraduate programs within Mehran University of Engineering and Technology Jamshoro. It is one of the oldest and diversified of the engineering fields, affecting almost all aspects of our lives. Fundamental subjects of mechanical engineering typically include: Engineering Mechanics, Strength of Materials, Instrumentation & control, Thermodynamics, Heat Transfer, Energy Technology, Fluid Machinery, Aerodynamics, Design of Mechanical systems, Manufacturing processes, Engineering Design, Mechatronics, Computer Aided Design and Drafting, Computer Aided Manufacturing, Mechanical Vibrations and Refrigeration/Air Conditioning.



4.3.2 The Faculty

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Chairman of the Department

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Dr. Agha Hassan Ali Khan Durrani

Professor

Ph.D. Pakistan

Dr. Memon Mujeeb-u-ddin Sahrai (On Lein)

Professor

Ph.D. United Kingdom

Dr. Khanji Harijan

Professor

Ph.D. Pakistan

Dr. Rizwan Ahmed Memon

Professor

Ph.D. Hong Kong

Dr. Dur Muhammad Pathan

Professor

Ph.D. Pakistan

Dr. Jawaid Daudpota

Professor

M.S. United Kingdom

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Dr. Abdul Fatah Abbasi
Professor
Ph.D. Pakistan
Mr. Rafique Ahmed Nizamani
Associate Professor
B.E. Pakistan
Mr. Jameel H. Khaliqdina
Associate Professor
M.E. Pakistan
Dr. Tanweer Hussain
Associate Professor
Ph.D. United Kingdom
Dr. Zeeshan Ali Memon
Associate Professor
Ph.D. United Kingdom
Mr. Shoukat Ali Memon
Assistant Professor
B.E. Pakistan
Mr. Ghulam Yasin Mughal
Assistant Professor
PGD. Pakistan
Mr. Abdul Samad Memon
Assistant Professor
M.E. Pakistan
Mr. Abdul Razaque Sahito
Assistant Professor
M.E. Pakistan
Mr. Muhammad Jurial Sangi
Assistant Professor
B.E. Pakistan
Mr. Muhammad Sharif Jamali
Assistant Professor
M.E. Pakistan
Mr. M. Atif Khan Qaim Khani
Assistant Professor
M.E. Pakistan

Mr. Abdul Ghafoor Memon (On Study Leave)
Assistant Professor
M.E. Pakistan
Mr. Imtiaz Ali Memon
Assistant Professor
M.E. Pakistan
Dr. Saifullah Samo
Assistant Professor
Ph.D. China
Mr. Javed Rehman Larik
Lecturer
PGD. Pakistan
Mr. Zain-ul-Abdin
Lecturer
PGD. Pakistan

4.3.3 Laboratory Facilities

Department of Mechanical Engineering is one of the oldest and prestigious department of the University supported and equipped with highly qualified faculty and modern laboratories.

1. Aerodynamics Laboratory
2. Automobile Laboratory
3. Computer Laboratory
4. Drawing Hall
5. Energy Technology Laboratory
6. Engineering Mechanics Laboratory
7. Fluid Mechanics Laboratory
8. Heat Transfer Laboratory
9. Material Testing Laboratory
10. Mechanical Vibrations Laboratory
11. Mechanics of Machines Laboratory
12. Mechatronics Laboratory
13. Refrigeration and Air Conditioning Laboratory
14. Thermodynamics Laboratory

4.3.4 COURSES

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIRST SEMESTER			
1	Islamic Studies/Ethics	02	00
2	Pakistan Studies	02	00
3	Applied Calculus	03	00
4	Engineering Drawing & Graphics	02	02
5	Engineering Statistics	03	01
6	Engineering Materials	03	00
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SECOND SEMESTER			
1	Functional English	03	00
2	Linear Algebra, Differential Equations & Analytical Geometry	03	00
3	Engineering Dynamics	03	00
4	Electrical Technology	03	01
5	Workshop Practice	00	02
TOTAL		12	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
THIRD SEMESTER			
1	Complex Variable & Transforms	03	00
2	Strength of Material-I	03	01
3	Mechanics of Machine-I	02	00
4	Thermodynamics-I	03	01
5	Basic Electronics	03	01
TOTAL		14	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FOURTH SEMESTER			
1	Introduction to Computer & C++ Programming	03	01
2	Strength of Material-II	03	00
3	Thermodynamics-II	03	01
4	Fluid Mechanics-I	03	01
5	Mechanics of Machine-II	02	01
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIFTH SEMESTER			
1	Numerical Analysis & Computer Applications	03	01
2	Heat and Mass Transfer	03	01
3	Applied Aerodynamics	02	01
4	Fluid Mechanics-II	03	01
5	Machine Design and CAD-I	03	00
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SIXTH SEMESTER			
1	Statistics and Probability	03	00
2	Instrumentation and Control	02	01
3	Machine Design and CAD-II	03	01
4	Heating, Ventilation and Air-conditioning.	03	01
5	Mechanical Vibrations	03	01
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SEVENTH SEMESTER			
1	Industrial Economics and Management	02	00
2	Automobile Engineering	02	01
3	Mechatronics	03	01
4	Manufacturing Processes-I	02	01
5	Thermal Power Plants	03	01
6	Health, Safety and Environment	02	00
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
EIGHT SEMESTER			
1	Renewable and Emerging Energy Technologies	03	01
2	Manufacturing Processes-II	03	01
3	Maintenance Engineering	02	00
4	Project Management	02	00
5	Project / Thesis	00	04
TOTAL		10	06

4.3.5 Career Opportunities

Mechanical Engineering has diverse applications in all fields of engineering and technology. The graduates of Mechanical Engineering have opportunities to work in many public as well as private sector industries. With the rapid growth rate of expansion in industrial sector, the employment potential for mechanical engineers has increased manifold. These engineers are employed in a number of companies, organizations, and industries, e.g. automobile, manufacturing process plants, renewable energy technologies, automation technologies, oil refineries, technical wings of armed forces, marine engineering departments, space research organization, electronics, etc. Professionals with rich managerial and technical experience could find job opportunities in administrative and managerial positions in public as well as private sector industries.

They can offer their expertise in teaching and innovative research institutes. In addition, these high valued human resources can be profoundly progressive in sales, marketing, and consultancy pursuits. Several government departments including telecommunication, defense, and PWD employ Mechanical Engineers to cater their technical needs.

4.3.6 MECHANICAL ENGINEERING WORKSHOP

About the Workshop:

Mechanical Engineering Workshop is a place where students acquire knowledge on the operation of various processes involved in manufacturing and production. The Workshop Practice course makes students competent in handling practical work in Engineering Environment. Mechanical Engineering Workshop is also involved in different maintenance/repair works for University.

Shops/Laboratory facilities:

Machine Shop	Prof. Dr. Rafique Ahmed Jhatial (Incharge Workshop)
CNC Shop	Mr. Afaq Rafique Memon (Senior Instructor)
CAD /CAM LAB.	Mr. Afaq Rafique Memon (Senior Instructor)
Forging Shop	Mr. Afaq Rafique Memon (Senior Instructor)
Fitting Shop	Mr. Ameer Ali Memon (Senior Instructor)
Wood Work Shop	Mr. Afaq Rafique Memon (Senior Instructor)

Foundry Shop	Mr. Pir Jawed Ahmed Sarhandi (Senior Instructor)
Welding Shop	Mr. Jamil Ahmed Mangi (Senior Instructor)

Teaching Staff:

Prof. Dr. Rafique Ahmed Jhatial
Workshop In-charge, Ph.D United Kingdom
Phone: 022-2771218 Ext. 2060
Mr. Ameer Ali Memon
Senior Workshop Instructors
B.E. Pakistan
Mr. Afaq Rafique Memon
Senior Workshop Instructors
B.E. Pakistan
Mr. Pir Jawed Ahmed Sarhandi
Workshop Instructors
B.E. Pakistan
Mr. Abdul Qadir Jamali
Workshop Instructors
B.Tech. Pakistan
Mr. Jamil Amed Mangi
Workshop Instructors
B.Tech. Pakistan
Mr. Jamaluddin Vinjhar
Workshop Instructors
B.E. Pakistan

4.4 DEPARTMENT OF METALLURGY & MATERIALS ENGINEERING

4.4.1 The Department

Metallurgy and Materials Engineering is a field of engineering that circumscribes the spectrum of materials and deals with their manufacturing and their applications. It is the technology of producing, processing and giving proper shape to metals and alloys and other engineering materials through economically viable process. The field offers an enormous range of activities and fields of influence with a high degree of job satisfaction for both male and female.



The Department of Metallurgy and Materials Engineering offers a four year Degree Course Titled Bachelor of Engineering in Metallurgy and Materials. The compulsory degree courses are Mineral Dressing, Metallurgical Thermodynamics and Kinetics, Iron Making Technology, Steel Making Technology, Physical Metallurgy, Science of Engineering Materials, Inspection and Testing of Materials, Heat Treatment, Corrosion & Protection, Manufacturing Technology and Engineering Fracture Mechanics. However other related subjects are also included in the course to make it versatile and integratable with other fields of Engineering. The Department also offers part time Master of Engineering (M.E), M.Phil. and Ph.D program in Metallurgy and Materials Engineering.

A seminar hall-cum-library has also been established in the Department to provide in house reference materials for the faculty members and students. A computer laboratory is available for students that provide internet, e-mail and various application software facilities. The students have also to complete a project and dissertation in the final year involving research/special studies to give them more comprehensive experience of practical work and report writing.

A student chapter "Mehranian Materials Advantage Chapter (MMAC)" is also working in the Department to provide an effective and stimulating platform for the student to foster, develop and promote communication, education, networking, dissemination of knowledge, research and innovations in aspects of Metallurgy and Materials Engineering. The Department has prepared PC-I approx. cost Rs.40 million for strengthening the existing lab. Facilities and launching Ph.D research program in the field of Metallurgy and Materials Engineering.

4.4.2 The Faculty

Prof. Dr. Muhammad Moazam Baloch
Chairman of the Department
Phone: 022-2771425 Ext. 4500

Dr. Muhammad Moazam Baloch
Professor
Ph.D. United Kingdom

Dr. Muhammad Ishaque Abro
Professor
Ph.D. Pakistan

Mr. Sikandar Ali Memon
Assistant Professor
M.E. Pakistan

Dr. Riaz Ahmed Memon
Assistant Professor
M.E. Pakistan

Mr. Nisar Ahmed Memon
Assistant Professor
M.E. Pakistan

Mr. Khalid Mehmood Shah
Lecturer
B.E. Pakistan

Mr. Muhammad Wasim Akhtar (On Study Leave)
Lecturer
M.E. Pakistan

Mr. Umair Aftab
Lecturer
M.E. Pakistan

Mr. Shafique Ahmed
Lecturer
B.E. Pakistan

4.4.3 Laboratory Facilities

The department is also equipped with the laboratories are listed below, having latest instruments.

1. Heat Treatment Laboratory
2. Material Testing Laboratory
3. Fabrication Laboratory
4. Metallographic Laboratory
5. Electroplating Laboratory
6. Sand Testing Laboratory

4.4.4 COURSES

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIRST SEMESTER			
1	Applied Calculus	03	00
2	Islamic studies / (Ethics)	02	00
3	Pakistan studies	02	00
4	Introduction to Engineering Materials	03	00
5	Introduction to Computing	02	01
6	Applied Chemistry	02	01
TOTAL		14	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SECOND SEMESTER			
1	Functional English	03	00
2	Linear Algebra Differential Equation Analytical Geometry	03	00
3	Engineering Drawing & Graphics	02	01
4	Applied Physics	02	01
5	Applied Electricity and Electronics	03	01
6	Work shop & practice	00	02
TOTAL		13	05

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
THIRD SEMESTER			
1	Communication Skills	02	00
2	Fuel Furnaces and Energy Conservation	03	00
3	Mineral Dressing	02	01
4	Industrial Safety & Environmental Engineering	02	01
5	Materials Thermodynamics & Kinetics	02	01
6	Mechanical Behavior of Materials	02	01
TOTAL		13	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FOURTH SEMESTER			
1	Foundry Engineering -I	02	01
2	Iron Making Technology	03	00
3	Physical Metallurgy-I	02	01
4	Non Ferrous Extractive Metallurgy	03	00
5	Inspection and Testing of Materials	03	01
TOTAL		13	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIFTH SEMESTER			
1	Numerical Methods & Computation	03	01
2	Instrumentation & Control	03	01
3	Vacuum Technology	02	00
4	Engineering Ceramics & Glasses	02	01
5	Corrosion & Protection	03	01
TOTAL		13	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SIXTH SEMESTER			
1	Business Communication & Report Writing	02	00
2	Statistics & Probability	03	00
3	Physical Metallurgy-II	02	01
4	Welding & other Joining Process	03	01
5	Industrial Economics & Management	02	00
6	Polymers and Composite Materials	03	01
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SEVENTH SEMESTER			
1	Nuclear Metallurgy & Materials	02	00
2	Steel Making Technology	03	00
3	Heat Treatment Processes	03	01
4	Manufacturing Technology	03	01
5	Powder Metallurgy	02	01
TOTAL		13	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
EIGHT SEMESTER			
1	Foundry Engineering -II	02	01
2	Computer Application in Materials Engineering	02	01
3	Advanced Materials	03	00
4	Fracture Mechanics and Failure Analysis	03	01
5	Project	00	04
TOTAL		10	07

4.4.5 Career Opportunities

The graduates of this program earn the title of “Metallurgy and Materials Engineer”, and can hunt their jobs in any public and private metal working industries in inland and out land. In inland graduate can seek its opportunity in Pakistan Steel Mill, Bolan Casting limited, Agha Steel Mill, Pakistan Machine tool factory, Heavy Mechanical Complex, Pakistan Ordinance Factory. Other interesting areas may be automotive industry, high tech ceramic industry. Graduates can work in many different areas and industries such as facilities that produce iron , steel, and non-ferrous metals (aluminum, copper, etc.), the metal casting industry, the automotive industry, traditional and high-tech ceramic manufacturing facilities, heat treatment companies, materials research and development centers, the defense industry, quality control firms, surveillance companies, oil and gas sector and biomedical applications.

4.5 DEPARTMENT OF MINING ENGINEERING

4.5.1 The Department

“If it is not Grown, it has to Mine”, Mining may well have been the second of humankind's earliest endeavors-granted that agriculture was the first. The two industries ranked together as the primary or basic industries of early civilization.

Mineral sector always plays a vital role for industrial development and economic growth of nations. The demand for minerals of all kinds is higher today than ever before, and it continues to increase as the nations



of the world strive to improve their standards of living. Mining Engineering is a highly technical field. Today the challenges of mining are greater than before. Now high-tech techniques are being designed to make tomorrow's mines more productive, safer, and economically successful. Mining engineers are seeking ways to extract essential raw materials without causing undue disturbance to the environment.

Mining provides the mineral resources for society, including coal, metallic & non-metallic ores, gemstones as well as basic products such as; gravel, limestone, sandstone etc., that are essential for the construction of highways, bridges, power plants, and building foundations. Wherever productive minerals deposits are found in our country, the technical skills of Mining and mineral processing engineers are required. The Department of Mining Engineering offers degrees in B.E. in Mining Engineering, M.E. in Mining Engineering and Ph.D. in Mining Engineering

Department of Mining Engineering is actively engaged in various projects of national and strategic importance in the fields of coal mining, coal gasification and mineral processing, and has developed strong academic and research collaboration with university of Nottingham UK, Montan University, Leoben Austria, Hacettepe University, Turkey and China University of Mining and Technology, Xuzhou, China.

4.5.2 The Faculty

Mr. Parvez Ahmed Shakeel

Chairman of the Department

Phone: 022-2771391, 022-2772260-73 Ext. 4600

Dr. Abdul Ghani Pathan (Visiting Faculty)

Professor

Ph.D. United Kingdom

Mr. Pervez Ahmed Shakeel

Associate Professor

M.Sc. Pakistan

Mr. Ahsan Ali Memon

Assistant Professor

B.E. Pakistan

Mr. Muhammad Yakoob Behan

Assistant Professor

M.E. Pakistan

Mr. Muhammad Hashim Baloch
Assistant Professor
M.E. Pakistan
Mr. Saeed Ahmed Memon
Assistant Professor
M.E. Pakistan
Mr. Fahad Irfan Siddiqui (On Study Leave)
Assistant Professor
M.Sc. Malaysia
Mr. Sikandar Ali Channa
Assistant Professor
M.E. Pakistan
Mr. Safiullah Memon
Assistant Professor
M.E. Pakistan
Mr. Agha Shafi Mohd Pathan
Lecturer
B.E. Pakistan
Mr. Munawar Ali Pinjaro (On Study Leave)
Lecturer
M.E. Pakistan
Mr. Muhammad Raheel Memon
Lecturer
M.E. Pakistan
Mr. Miraj Hyder Soomro
Lecturer
B.E. Pakistan
Mr. Sultan Ahmed Khoso
Lecturer
B.E. Pakistan

4.5.3 Laboratory Facilities

The department has following well equipped laboratories, which meets the academic needs of the students and faculty. These laboratories hold promise in providing superior consultancy services and supporting several research programs.

1. Rock Mechanics Laboratory
2. Mineral Processing Laboratory
3. Software Laboratory
4. Surveying Laboratory
5. Mine Ventilation Laboratory
6. Advance Research Laboratory

4.5.4 COURSES

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIRST SEMESTER			
1	Applied Calculus	03	00
2	Pakistan Studies	02	00
3	Islamic Studies / Ethics	02	00
4	Engineering Drawing	03	01
5	Workshop Practice	00	02
6	Mining Engineering Fundamentals	03	01
TOTAL		13	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SECOND SEMESTER			
1	Functional English	03	00
2	Linear Algebra & Analytical Geometry	03	00
3	Applied Chemistry	03	01
4	Electrical Technology	03	01
5	Engineering Mechanics	03	01
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
THIRD SEMESTER			
1	Differential Equations & Fourier Series	03	00
2	Mine Surveying-I	03	01
3	General Geology	03	01
4	Applied Thermodynamics	02	01
5	Strength of Materials	03	01
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FOURTH SEMESTER			
1	Mine Surveying-II	03	01
2	Fluids Mechanics	03	01
3	Mineralogy & Petrology	02	00
4	Mineral Processing-I	03	01
5	Coal Technology	03	01
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIFTH SEMESTER			
1	Numerical Analysis & Computer Programming	03	01
2	Mineral Processing-II	03	01
3	Structural Geology	03	00
4	Rock Mechanics	03	01
5	Utilization of Industrial Minerals	03	00
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SIXTH SEMESTER			
1	Statistics and Probability	03	00
2	Principles of Explosive Engineering	03	01
3	Mining Laws	03	00
4	Mine Ventilation	03	01
5	Mine Management	03	00
TOTAL		15	02

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SEVENTH SEMESTER			
1	Strata Control	03	00
2	Mineral Exploration Technique & Mine Economics	03	00
3	Mine Water & Dewatering Design	03	01
4	Planning & Design of Underground Mines	03	01
5	Drilling Technology	03	01
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
EIGHT SEMESTER			
1	Computer Application to Mining Industry	03	01
2	Mine Rescue & Safety	03	01
3	Surface Mine Design & Practice	03	01
4	Cement Technology	03	00
5	Project / Thesis	00	04
TOTAL		12	07

4.5.5 Career Opportunities

A degree in Mining Engineering offers attractive careers both in private and public sectors. The graduates of the Mining engineering department are employed in the public sector including Directorate of Mineral Development, Government of Sindh, Directorate of Sindh Coal Authority, Lakhra Coal Development company (LCDC); Pakistan Atomic Energy Commission (PAEC); Pakistan Mineral Development Corporation (PMDC); Oil and Gas Development Corporation Ltd (OGDCL); Quarries of Pakistan Steel mill, and various other private organizations like; coal mines, Cement Industries and other mining and mineral processing related projects.

4.6 INSTITUTE OF PETROLEUM & NATURAL GAS ENGINEERING

4.6.1 The Institute

Considering the fact that Pakistan, especially the province of Sindh, is very rich in oil and gas reserves; a separate Department of Fuel Engineering was established in 1983; later, on the recommendation of Accreditation Committee of the HEC the then UGC (University Grants Commission), the Department of Fuel Engineering was renamed as Department of Petroleum & Gas Engineering.

Petroleum Engineering has gained considerable importance due to its vital role in the economy of the country. In line with this progress, research and development activities have gathered momentum during last two decades. Therefore, the department was up-graded to the status of Institute of Petroleum & Natural Gas Engineering in 1996. The purpose was to promote advanced learning, encourage postgraduate studies and research in petroleum engineering to meet the need of qualified manpower nationally and internationally.



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The Institute has its own Seminar Hall at first floor having 70 persons seating capacity whereas the Institute and Society of Petroleum Engineers (Mehran Student Chapter) is regularly arranging and conducting technical lecturer, short courses, Initial/Final seminars of research project/thesis of undergraduate and postgraduates students and technical sessions respectively over there. The Institute has its own centrally air-conditioned seminar library with the original books, research journals, technical reports, newsletters and thesis/projects of undergraduates & postgraduates.

4.6.2 The Faculty

Prof. Dr. Suhail Ahmed Soomro Director of the Institute Phone: 022-2771241, 2772250-73 Ext. 4300, Fax No: 022-2772453
Dr. Hafeez-ur-Rahman Memon Meritorious Professor Ph.D. United Kingdom
Dr. Suhail Ahmed Soomro Professor Ph.D. Pakistan
Dr. Abdul Haque Tunio (On Lein) Professor Ph.D. Pakistan
Mr. Muhammad Hanif Sahto Assistant Professor B.E. Pakistan
Mr. Allah Dino Samoon Assistant Professor B.E. Pakistan
Mr. Shahzad Ali Baladi (On Lein) Assistant Professor M.E. Pakistan
Mr. Muhammad Khan Memon (On Study Leave) Assistant Professor M.E. Pakistan
Mr. Aftab Ahmed Mahesar Assistant Professor M.E. Pakistan

Mr. Khalil Rehman Memon
Assistant Professor
M.S. Pakistan
Mr. Naveed Ahmed Ghirano
Assistant Professor
M.E. Pakistan
Mr. Naeem Ahmed Bhatti
Lecturer
B.E. Pakistan
Abdul Qadir Shaikh (On Leave)
Lecturer
B.E. Pakistan
Mr. Mukhtiar Ali Talpur
Lecturer
B.E. Pakistan
Mr. Ubedullah Ansari
Lecturer
M.E. Pakistan
Mr. Habib U Zaman Memon
Lecturer
B.E. Pakistan
Mr. Irshad Ali Gopang
Lecturer
M.E. Pakistan
Mr. Faisal Najam Abro
Lecturer
B.E. Pakistan
Mr. Muhammad Zubair
Lecturer
B.E. Pakistan
Mr. Rano Soomro
Lecturer
B.E. Pakistan

4.6.3 Laboratory Facilities

The following laboratories are available in the Institute with modern equipments and named as:

1. Petroleum Refinery Engineering Laboratory
2. Gas Engineering Laboratory
3. Drilling & Reservoir Simulation Laboratory
4. Production Engineering Laboratory
5. Drilling Fluids Laboratory
6. Computer Laboratory
7. General / Oil Testing Laboratory

4.6.4 Career Opportunities

Internship/Graduate Training Program:

The Institute also arranges summer vacation internship to third/final year students with the coordination of oil and gas exploration and production companies operating in Pakistan. This internship enhances the knowledge of students on day-to-day field operation and working environment of the petroleum industry. In the final year the students are assigned to work on a project related to the field operations. The project is usually designed and completed in collaboration with the petroleum industry. After completing graduation, the reputed oil/gas sectors are usually requiring top ten students for their graduate training program.

Linkage with National / Int'l Organizations:

A Student Chapter of Society of Petroleum Engineers (SPE) International "Mehran Student Chapter" was also established at this Institute in 1998. The purpose to establish the chapter was to help the students in updating their relevant knowledge by organizing technical short courses, seminars and sessions, field trips. The chapter also helps the Institute to liaison with all the major national and multinational companies in the oil and gas sector in Pakistan.

The University has signed an agreement with Pakistan Petroleum Ltd to establish a PPL Chair in the Institute. The purpose of establishing such a Chair was to promote scientific research activities and higher learning in the field of Petroleum Engineering including laboratory research work, participation in technical conferences, seminars, workshops, and short courses and to maintain the quality of undergraduate and postgraduate programs of the Institute in the line of international standard.

4.6.5 COURSES

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIRST SEMESTER			
1	Fundamentals of Petroleum Engineering	03	00
2	Applied Chemistry	03	00
3	Applied Calculus	03	00
4	Islamic Studies / Ethics	02	00
5	Pakistan Studies	02	00
6	Functional English	03	00
TOTAL		16	00

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SECOND SEMESTER			
1	Applied Geology	03	01
2	Engineering Drawing & Graphics	02	01
3	Applied Physics	03	01
4	Communication Skills	02	00
5	Linear Algebra & Analytical Geometry	03	00
6	Workshop Practice	00	02
TOTAL		13	05

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
THIRD SEMESTER			
1	Stratigraphy & Structural Geology	02	00
2	Computer Programming & Software Application	02	01
3	Introduction to Electrical Engineering	02	01
4	Differential Equations & Complex Variables	03	00
5	Fluid Mechanics	02	01
6	Technical Writing & Presentation Skills	02	00
TOTAL		13	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FOURTH SEMESTER			
1	Drilling Engineering-I	03	01
2	Petroleum Geology & Geophysical Exploration	03	01
3	Applied Thermodynamics	02	00
4	Mechanics of Materials	02	01
5	Applied Statistics	03	00
TOTAL		13	03

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
FIFTH SEMESTER			
1	Petrophysics	02	01
2	Natural Gas Engineering	03	01
3	Organizational Behaviour	03	00
4	Properties of Reservoir Fluids	03	01
5	Drilling Engineering-II	03	01
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SIXTH SEMESTER			
1	Well Logging	02	01
2	Reservoir Engineering	03	01
3	Petroleum Refinery Engineering	03	01
4	Environment & Safety Management	03	00
5	Applied Numerical Methods	02	01
TOTAL		13	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
SEVENTH SEMESTER			
1	Well Testing	03	01
2	Petroleum Production Engineering-I	03	01
3	Reservoir Simulation	03	01
4	Instrumentation & Process Control	03	01
5	Project Planning & Management	02	00
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDIT HOURS	
		Theory	Practical
EIGHT SEMESTER			
1	Principles of Enhanced Oil Recovery	03	01
2	Petroleum Production Engineering-II	03	01
3	Gas Reservoir Engineering	03	01
4	Petroleum Economics	03	00
5	Project	00	02
TOTAL		12	05

4.7 DEPARTMENT OF TEXTILE ENGINEERING

4.7.1 The Department

The Department of Textile Engineering was established in 1993 for undergraduate program (i.e. Bachelor of Engineering in Textile Engineering). The aim of the department is to impart students with the knowledge and skills in the field of textile manufacturing and processing as per international standards, so that, after graduation, students could contribute towards the needs, development and modernization of Pakistan's Textile Industry and Services. This department is the first Textile Engineering institute in Sindh Province and Pakistan's first recognized institute by Pakistan Engineering Council. After WTO regulations implementation and increasing global trading competition, the textile industry needed to have highly qualified research oriented and technically skilled personnel, who could improve and optimize the quality and production of textile products. Therefore, the Master of Engineering in Textile Engineering program was also started in 2008.

The curriculum of the B.E. program covers the theory and practical core courses related to various segments of Textile Engineering supplemented with other engineering and allied courses related to natural science, social science and management. Moreover, the curriculum is based on the industry and stakeholders' needs, and is mapped to meet following broad program educational objectives.

- a) Imparting in-depth and broad knowledge of textile engineering and use of modern tools.



- b) Imparting skills of problem analysis, investigating & designing/developing solution to complex textile engineering problems, working individually and in a team, professional and effective communication, and managing projects and assignments.
- c) Imparting understanding health and safety issues, environmental sustainability, and ethical responsibilities.

4.7.2 Laboratory Facilities

The following laboratories are available in the department with modern equipments and named as:

- | | |
|--|-----------------------|
| 1. Yam Manufacturing | 2. Weaving |
| 3. Textile Chemical Processing | 4. Knitting |
| 5. Colour Measuring and Microscopy | 6. Textile Composites |
| 7. Textile Testing and Quality Control | 8. Nano-Materials |
| 9. Garment Manufacturing | |

4.7.3 The Faculty

Dr. Mazhar Hussain Peerzada

Chairman of the Department

Phone: 022-2771565 Ext. 6100

Dr. Rafique Ahmed Jhatial

Professor

Ph.D. United Kingdom

Dr. Mazhar Hussain Peerzada

Associate Professor

Ph.D. United Kingdom

Dr. Awais Khatri

Associate Professor

Ph.D. Australia

Dr. Farooq Ahmed

Associate Professor

Ph.D. Pakistan

Dr. Zeeshan khatri

Associate Professor

Ph.D. Japan

Mr. Raj Kumar Khiani

Assistant Professor

B.S. Pakistan

Dr. Noorullah Soomro
Assistant Professor
Ph.D. Turkey
Dr. Uzma Syed
Assistant Professor
Ph.D. United Kingdom
Mr. Raja Fahad Qureshi (On Study Leave)
Assistant Professor
M.E. Pakistan
Mr. Shamshad Ali Shaikh (On Study Leave)
Assistant Professor
M.E. Pakistan
Mr. Samander Ali Malik (On Study Leave)
Assistant Professor
M.E. Pakistan
Ms. Sanam Irum Memon (On Study Leave)
Assistant Professor
M.E. Pakistan
Mr. Shahid Hussain Jalbani (On Study Leave)
Lecturer
M.E. Pakistan
Ms. Sadaf Aftab Abbasi (On Study Leave)
Lecturer
M.E. Pakistan
Mr. Abdul Wahab Jatoi (On Study Leave)
Lecturer
M.E. Pakistan
Mr. Iftikhar Ali Sahito (On Study Leave)
Lecturer
M.E. Pakistan
Ms. Alvira Ayoub (On Study Leave)
Lecturer
M.E. Pakistan
Ms. Rabia Almas Arain (On Study Leave)
Lecturer
M.E. Pakistan

Mr. Naveed Mengal (On Study Leave)
Lecturer
M.E. Pakistan
Mr. Nadir Ali Rind (On Study Leave)
Lecturer
M.E. Pakistan
Ms. Umaima Saleem (On Study Leave)
Lecturer
M.E. Pakistan
Mr. Abdul Wahab Memon (On Study Leave)
Lecturer
M.E. Pakistan

4.7.4 Career Opportunities

After graduation, the candidate will be:

- Able to join any textile manufacturing and processing industry in Pakistan and abroad as a management trainee or at similar position.
- Able to join textile services sector such as testing, merchandising and auditing. . .etc.
- Eligible for admission in Master degree program (also PhD degree in some cases) in any reputed university in the country and around the globe.

The areas of further study may be expanded to other Science, Engineering, Management and Applied Sectors such as Technical and Smart Textiles, Materials, Environment, Medical, Automobile and Aerospace, Defense, and so on.

4.7.5 COURSES

Sr. No.	SUBJECT NAME	CREDITS	
		Theory	Practical
FIRST SEMESTER			
1	Introduction of Textile Engineering	03	00
2	Applied Chemistry	03	01
3	Engineering Drawing	00	02
4	Electrical Engineering	02	01
5	Applied Calculas	02	00
6	Islamic Studies/Ethics	02	00
7	Pakistan Studies	02	00
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDITS	
		Theory	Practical
SECOND SEMESTER			
1	Textile Raw Materials	03	00
2	Textile Mechanics - I	03	01
3	Electronics Engineering	03	01
4	Differential Equations & Laplace Transform	02	00
5	Functional English	03	00
6	Workshop Practice	00	02
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDITS	
		Theory	Practical
THIRD SEMESTER			
1	Fiber Science	03	01
2	Yarn Manufacturing - I	03	01
3	Textile Mechanics - II	02	01
4	Applied Thermodynamics	03	01
5	Industrial Engineering & Management	03	00
6	Fibre Science	03	01
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDITS	
		Theory	Practical
FOURTH SEMESTER			
1	Synthetic Fiber Manufacturing	02	00
2	Yarn Manufacturing - II	03	01
3	Fabric Manufacturing - I	03	01
4	Textile Pretreatment	03	01
5	Textile Machine Design	02	00
6	Numerical Methods	02	00
TOTAL		15	03

Sr. No.	SUBJECT NAME	CREDITS	
		Theory	Practical
FIFTH SEMESTER			
1	Yarn Manufacturing - III	03	01
2	Fabric Manufacturing - II	03	01
3	Dyestuff Chemistry	03	01
4	Introduction to Computers & C++ programming	02	01
5	Communication Skills	02	00
TOTAL		13	04

Sr. No.	SUBJECT NAME	CREDITS	
		Theory	Practical
SIXTH SEMESTER			
1	Yarn Manufacturing - IV	02	01
2	Fabric Design and Structure	03	01
3	Textile Printing	03	01
4	Textile Engineering Utilities & Services	02	01
5	Environmental Engineering	02	00
6	Statistical Methods	02	00
TOTAL		14	04

Sr. No.	SUBJECT NAME	CREDITS	
		Theory	Practical
SEVENTH SEMESTER			
1	Fabric Manufacturing - III	02	01
2	Colour Physics	02	01
3	Textile Testing & Quality Control	03	01
4	Textile Project Planning	02	00
5	Automation & Control Engineering	02	01
6	Production Management	02	00
TOTAL		13	04

Sr. No.	SUBJECT NAME	CREDITS	
		Theory	Practical
EIGHT SEMESTER			
1	Yarn Manufacturing - V	02	01
2	Fabric Manufacturing - IV	02	01
3	Textile Finishing	03	01
4	Textile Marketing & Merchandising	03	00
5	Thesis/Project	00	04
TOTAL		10	07



**FACULTY OF
SCIENCE, TECHNOLOGY
AND HUMANITIES**

5. FACULTY OF SCIENCE, TECHNOLOGY & HUMANITIES

5.1 DEPARTMENT OF BASIC SCIENCES & RELATED STUDIES (BSRS)

5.1.1 The Department

This department teaches the courses of Mathematics including Statistics, Computer Science, Pakistan Studies and Islamic Studies/Ethics. The courses of Mathematics and Computer Sciences are also taught to the postgraduate students of the University. The department also participates in offering short courses on various aspects of computer oriented courses. The extensive research work is also carried out by the teachers of this department. Two Ph.D students have been produced in the field of Finite Element Simulation (2004) and also "Finite Element Modeling of Blood Flow" (2012) and a Post-graduate research student is registered for leading to Ph.D degree. This department is awarded Research productivity by Pakistan Council for Science & Technology in the year 2003-2004 on the basis of research conducted during the year 2002. The department has started 2-year M.Phil Program in the year 2014. This will help the students of Mathematics, Statistics, Physics and Engineering to further improve their knowledge and qualifications in Applied Mathematics.

5.1.2 The Faculty

Prof. Dr. Muhammad Anwar Solangi
Chairman of the Department
Phone: 022-2771565 Ext. 2200

Dr. M. Anwar Solangi
Professor
Ph.D, Pakistan

Dr. Syed Feroz Shah
Professor
Ph.D, China

Mr. Khan Muhammad Chhajro
Assistant Professor
M.Sc, Pakistan

Ms. Yasmin Zafar
Assistant Professor
MBA Pakistan

Mr. Saifullah Abro
Assistant Professor
M.Sc, Pakistan

Mr. Ghulam Yaseen Bhutto
Assistant Professor
M.Sc, Pakistan

Dr. Asif Ali Shaikh
Assistant Professor
Ph.D, Pakistan

Mr. Ghulam Abbas Mehar
Assistant Professor
MA, Pakistan

Mr. Saifullah Abro
Assistant Professor
M.Sc, Pakistan

Mr. Abdul Saleem Memon
Assistant Professor
M.Phil, Pakistan

Ms. Sania Qureshi
Assistant Professor
M.Phil, Pakistan

Ms. Zaib-un-Nisa Memon
Assistant Professor
M.Phil, Pakistan

Mr. Muhammad Urs Jhatial
Assistant Professor
M.Phil, Pakistan

Ms. Naseem Khalid Memon
Lecturer
M.Sc, Pakistan

Ms. Saima Qadri
Lecturer
M.Sc, Pakistan

Mr. Imran Qasim Memon
Lecturer
M.Sc, Pakistan

Hafiz Abdul Aziz Memon
Lecturer
MA, Pakistan

Mr. Ayaz Ali Siyal
Lecturer
M.Sc, Pakistan
Mr. Shafqat Chandio
Lecturer
B.S, Pakistan
Mr. M. Mujtaba Shaikh
Lecturer
B.S, Pakistan
Mr. Ali Asghar Sangah
Lecturer
M.Sc, Pakistan
Mr. Hammeer Abro
Lecturer
B.S, Pakistan
Ms. Fozia Shaikh
Lecturer
B.S, Pakistan
Mr. Kashif Ali Abro
Lecturer
M.Phil, Pakistan
Hafiz Shoaib Ahmed Kalhoro
Lecturer
MA, Pakistan
Ms. Sara Mahasar
Lecturer
M.Sc, Pakistan
Mr. Ghulam Nabi Sahar
Lecturer
MA, Pakistan
Raheem Bux Khokhar (On Study Leave)
Lecturer
B.Sc, Pakistan

5.2 English Language Development Centre

5.2.1 The Department

In 1988 a Directorate named English Language Development Centre was established in collaboration with British Council and the University Grants Commission (Presently the Higher Education Commission of Pakistan) at Mehran University Jamshoro. This Directorate was initially run by a British Director Mr. Brian Bamber. During this project the faculty members were awarded scholarships to pursue Masters in ELT/TESOL from British and American universities. After Mr. Bamber, Prof. Bodlo M. Hassan took over as Director who received ELT training from UK and administrative training from USA. Mr. Bodlo contributed the best way he could in field of research and development and helped the Directorate get going very successfully. He initiated Teacher' Education and staff training courses for School, College and University teachers and officers. The ELDC is relocated to its new state of the art building at MUET Jamshoro.

The Directorate was amongst 5 shortlisted institutions in public universities of Pakistan which were considered by English Language Teaching Reforms Project (ELTR) of HEC Pakistan for establishment of National Centre for English Language Teaching and Research. MS. Linguistic has been started since 2014. Two batches are simultaneously running.

The ELTR Project of the HEC of Pakistan has recently awarded funds to establish the state of the art Self Access Centre (SAC) at the ELDC MUET. This will be the first SAC in province Sindh and hub of teachers' training in the province. The SAC will focus on Computer Assisted Language Learning (CALL) and Internet Mediated Language Learning (IMLL).

Directorate offers following courses:

- Functional English
- Communication skills for Engineers
- Technical Report writing
- Presentation Skills
- Teachers' training-ELT teachers' education Computer Assisted Language Learning (CALL)
- Computer Internet Mediated Language Learning (IMLL)
- Accent and Pronunciation (Lang Lab)
- IELTS, TOEFL, GRE, GMAT, SAT

5.2.2 The Faculty

Dr. Habibullah Pathan
Director of the Centre
Phone: 022-2771286 Ext. 6600
Dr. Habibullah Pathan
Associate Professor
Ph.D. United Kingdom
Ms. Rosy Ilyas
Assistant Professor
TEFL: United Kingdom
Ms. Quratul Ain Mirza
Assistant Professor
M.Phil (ELT): Pakistan
Ms. Sahiba Thaheem
Assistant Professor
M.Phil (ELT): Pakistan
Mr. Shoukat Ali Lohar
Assistant Professor
M.Phil (ELT): Pakistan
Mr. Jam Khan Muhammad
Lecturer
MA (Linguistic) : Pakistan
Ms. Sania Sachal Memon
Lecturer
MA (Linguistic) : Pakistan
Ms. Sadia Aftab Memon
Lecturer
MA (Linguistic) : Pakistan

5.3 Affiliated Colleges/Institutes

Following Colleges/Institutes are affiliated with Mehran University.

1. Government College of Technology, Hyderabad is affiliated with Mehran University which offers B.Tech. 4-year program in Civil, Electrical and Mechanical Technologies. Mehran University conducts the examinations of this college and awards degrees. Further information of these courses may be obtained from:

The Principal,
Government College of Technology,
Hyderabad.
Phone: 022-9240124 & 022-9240122

2. The Hyderabad Institute of Arts, Science and Technology, Hyderabad is affiliated with Mehran University which offers courses in BS (Information Technology) and MS (Business Information Technology). The Pre-admission Test of the candidates is conducted by the agency prescribed by Mehran University of Engineering and Technology, Jamshoro. Also Mehran University conducts the examinations of this institute and award degrees. Further information of these courses may be obtained from:

Justice (Retrd.) Abdul Majeed Khanzada
Chairman,
Hyderabad Institute of Arts, Science & Technology,
Auto Bhan Road, Hyderabad
Phone: 022-3821474

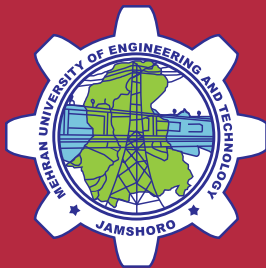
3. Hyderabad College of Science and Technology, Hyderabad is affiliated with Mehran University which offers courses in B.Tech. 4-year programme in Civil, Electrical and Mechanical Technologies. Mehran University conducts the examinations of this college and awards degrees.

Further information of these courses may be obtained from:

The Principal,
Hyderabad College of Science & Technology,
Hyderabad.
Phone: 022-3820223



**MUET
RESEARCH & DEVELOPMENT
AND
CAMPUS LIFE**



6. RESEARCH AND DEVELOPMENT

6.1 Our PhD Faculty

Mehran UET is consistently ranked among the top engineering universities in the country, but what does that mean for our students?

PhD faculty is considered to be the backbone of any educational institute; it not only adds to the university ranking but also works for the betterment of community by focusing and proposing solutions to the current problems of the community. Mehran UET has a significant number of PhDs, apart from PhDs in the core engineering disciplines, the university has PhD faculty also in the subjects of basic sciences and English language. It means that, from day one of your degree, you will be taught by experts at the forefront of their fields. Your lecturers and tutors are engaged in research into everything from sensor networks to irrigation and environmental engineering.

Your teachers are industry leaders and researchers at the forefront of discovery. At Mehran UET, you'll learn from renowned researchers and industry leaders recognized globally for their outstanding achievements. They are passionate, brilliant, and dedicated to sharing their insights and discoveries with you.

6.2 Mehran University Research Journal of Engineering & Technology

The main aim of Mehran University Research Journal of Engineering & Technology is to publish refereed, well written original research articles that describe the latest research and developments in Engineering, Science & Technology. This journal is being published since 1982, and is registered with ISSN. This is a broad based journal covering all branches of engineering, science & technology. Mehran University Research Journal of Engineering & Technology is recognized by the Higher Education Commission (HEC) under Category X. The journal is indexed by a number of international abstracting agencies including INSPEC, ACI(American Concrete Institute), British Library, Library of Congress and TRB(Transportation Research Board). This journal is a peer-reviewed journal and is published in January, March, July and October, i.e. four times a year.



6.3 International Research Conferences

International research conferences are aimed to bring together a wide spectrum of international experts to facilitate a creative environment for the promotion of collaboration and knowledge transfer. In particular a research conference facilitates a dialogue between major industry players, entrepreneurs and academia to help create a roadmap for the development of tangible research environment in the country.

Mehran UET is making history amongst the engineering universities of Pakistan by organizing several international conferences in a single calendar year in diversified fields of engineering. In 2013 alone, Mehran UET hosted three international conferences including international multi topic conference (IMTIC'13, 3rd in series), International Conference on Wireless Sensor Networks for Developing Countries (WSN4DC'13), and 1st International Coal Conference (ICC'13). In 2014-2015, Mehran UET hosted two international conferences, IMTIC'15 and International Conference on Energy, Environment and Sustainable Development (EESD'14).

Following the distinctive success of IMTIC '08, IMTIC '12 and IMTIC'13 published by Springer CCIS series and indexed by DBLP, International Multi Topic Conference 2015 (IMTIC '15) continued its tradition in Education Hub of Pakistan - Jamshoro. IMTIC '15 was being jointly organized by Mehran University of Engineering & Technology, Jamshoro,



Professor Dr. Florin POPENTIU VLĂDICESCU UNESCO Department University "Politehnica" of Bucharest is receiving keynote speaker shield from Chairman Higher Education Commission during mega International event IMIC'15 held at MUET Auditorium

Pakistan, and Technical Collaboration and support of MUET Shaheed Zulfikar Ali Bhutto Campus Khairpur Mirs, European Union Erasmus Mundus INTACT (It's Time for Collaboration Towards Close Cooperation) Program, Centre for Telecommunication Infrastructure (CTIF), Alborg University, Denmark, and University of Umm Al-Qura, Makkah, Saudi Arabia. Series of successful IMIC events has now turned into an international forum for researchers to exchange information regarding novel aspects of technology, application and service development within the multidisciplinary fields of Information and Communication Technologies.

The 1st International Conference on Wireless Sensor Networks for Developing Countries (WSN4DC '13) was jointly organized by Mehran University of Engineering & Technology, Jamshoro, Pakistan, Erasmus Mundus, Strong Ties program and International Islamic University Malaysia, during 24-26 April, 2013.

Sindh is considered as the land of natural reserves, amongst these reserves coal is recently identified the major reserve. The world is facing a major challenge to meet future energy supplies. With global energy demand projected to rise up to 55% by 2030, fossil fuels will continue to hold a dominant share of the world's energy mix. The demand for coal could rise by 70% in absolute terms by 2030. The latest technologies for the coal can help to meet the challenges of our energy future, realizing this Energy & Environmental Engineering Research Group of Mehran UET & University of Sindh organized "1st International Coal Conference 13" at Jamshoro, Pakistan, during 7-9 Nov, 2013.

The above organized technical meetings is a tangible proof of the fact that Mehran UET is well aware of the current demands and issues of

our society and the university is constantly contributing its share to work for the betterment of the community. This also helps to aware our students of the current market trends and better guide them to be parallel with those trends.

6.4 Research Groups

Since the age we are living in, research in isolation has become a stone age idea, the growth and acceleration appears when there is an active collaboration amongst researchers. For this purpose research groups play a vital role. At Mehran UET a number of research groups involving undergraduate and postgraduate (masters and PhD) students along with our skilled and experienced PhD faculty are working on a number of industrial projects.

- A. Faculty of Engineering
 1. Energy and Environmental Engineering research group.
 2. Nano materials research group.
- B. Faculty of Electrical, Electronics and Computer Engineering
 1. Smart Grid and Energy Management
 2. Embedded Systems
 3. Computer Vision
 4. Communication System and Networks
 5. Semiconductor Devices and Materials
 6. Software Engineering
 7. Artificial intelligence and control systems
 8. Power systems
 9. Electrical Machines
 10. Wireless Sensor Networks



6.5 OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION (ORIC)

Office of Research Innovation and Commercialization (ORIC) is a bridge between Academia of Mehran UET and the Industry. University is not only to produce the workers for industry, but to conduct a research based on the need of industry and public benefit and to commercialize it. The Gap of years may not be filled within days, but at least we have started our journey from 2013.

ORIC helps in making research groups and research Cells within departments/directorates of University and provides awareness on society need and research trends. The ORIC communicates with the concerned organizations/industries to provide internships to the students of various Departments & Institutes of the University during summer/winter vacations.

ORIC identifies, pursues and facilitates the organizations/industries to recruit the fresh graduates of the Mehran UET on merit. Continuing education, seminars, conferences and workshop is an essential tool to sharpen the skills. ORIC facilitates university administrative staff, academic staff, students and the professionals to build their capacity.

Getting advantage of location; nearby Kotri Industrial Area, Hyderabad Industrial Area and Noori Abad Industrial Area the ORIC signed MOU's with various industries and commercial organization to work together for mutual interests. ORIC of Mehran UET is not limited to the boundaries, but it may excel with the innovation. We encourage our faculty and students to think out of box and come up with new ideas. Building of ORIC is equipped with all modern facilities, having PC lab,



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conference room, class room and auditorium with audio visual systems.

Prof. Dr. Inamullah Bhatti
Director,
Office of Research Innovation and Commercialization (ORIC)
dir.oric@admin.muett.edu.pk

6.6 INSTITUTE OF INFORMATION AND COMMUNICATION TECHNOLOGIES

In order to contribute its share in diversified fields of Information Technology, attract the main from the country in general and all over Sindh in particular, train on the state-of-the-art technology and provide opportunity to serve the country, the Institute of Information and Communication Technologies (IICT) has been established at the university.

The institute consists of following Masters Degree programs:

- Biomedical Engineering
- Computer and Information Engineering
- Communication Systems and Networks
- Embedded Systems
- Electronic Systems Engineering
- Electrical Power Engineering
- Information Technology
- Mechatronics
- Telecommunication Engineering and Management
- Telemedicine and E-Health Systems
- Software Engineering

Currently more than 400 master degree students are enrolled in above programs. The master program has a mandatory research project to be completed by students going through several stages of examination, including initial seminar, final seminar and viva to be evaluated by external examiners. Beside this IICT is producing a significant number of PhDs every year. At the moment 20 PhD students are working in a number of diversified topics under the umbrella of various research groups. Further information may be obtained from,

Prof. Dr Mukhtiar Ali Unar
Director,
Institute of information and Communication Technologies.
Telephone: 022-2771206
Fax: 022-2771382
Email: director.iict@admin.muett.edu.pk
Website: iict.muett.edu.pk

6.7 DIRECTORATE OF POSTGRADUATE STUDIES

The University started postgraduate programme through the Directorate of Postgraduate Studies in December 1978 in different fields of engineering.

Currently the postgraduate programs are offered in the following disciplines:

- Applied Mathematics
- Architecture
- Chemical Engineering
- Civil Engineering
- City and Regional Planning
- Energy Systems Engineering
- English Linguistic
- Geo-Tech and Highways Engineering
- Manufacturing Engineering
- Metallurgy and Materials Engineering
- Industrial Engineering & Management
- Textile Engineering
- Mining Engineering
- Construction Management
- Structural Engineering

Other postgraduate Programs are also offered in the fields of Irrigation Engineering, Environmental Engineering and Petroleum Engineering, which are running under the Institute of Water Resources Engineering & Management, Institute of Environmental Engineering and Management, and the Institute of Petroleum & Natural Gas Engineering respectively.

Dr. Khanji Harijan
Director, Postgraduate Studies
Email: director.pgs@admin.mueta.edu.pk

Dr. Tanweer Hussain
Co-Director, Postgraduate Studies
Email: tanweer.hussain@faculty.mueta.edu.pk

6.8 INSTITUTE OF WATER RESOURCES AND MANAGEMENT (IWREM) / U.S-PAKISTAN CENTER FOR ADVANCE STUDIES IN WATER (US-PCASW)

Since irrigation plays a crucial role in the agriculture sector throughout Pakistan, and particularly in Sindh province. The above named

Institute was established in 1987 to cater for specialized needs of the water resources engineering and management. The Institute offers full-time (morning and evening) programs for degrees of M.E., M.Phil. and Ph.D.

The US-PCASW is part of a broader higher education initiative recently launched in Pakistan with financial support from the United States Government through its Agency for International Development (USAID). The objective of this initiative is to enhance the capacity of Pakistan's higher education institutions to contribute solutions to Pakistan's development challenges. The initiative entails the establishment of four Centers for Advanced Studies in water, energy and agriculture and food security in selected Pakistani universities. US-PCASW, is one of the four Centers, focused on identifying and developing solutions for the multifaceted water-related challenges facing the country, the Center is housed at the Mehran University of Engineering and Technology (MUET), Jamshoro. <http://www.mueta.edu.pk/institutes/iwrem-uspcasw>.

The Center will contribute solutions to Pakistan's water-related challenges by educating and training the next generation of water sustainability leaders through advanced academic training in different water-related disciplines. The tangible deliverables of the Center include postgraduate degree programs, applied policy research, facilitation of public-private partnerships, and provision of policy advice in a range of water-related disciplines.

Prof. Dr. Bakhshal Khan Lashari
Director, Institute of Water Resources Engineering & Management,
Phone: 022-2771226
E-mail: bakhshall@yahoo.com,
bakhshal.lashari@faculty.mueta.edu.pk

6.9 INSTITUTE OF ENVIRONMENTAL ENGINEERING AND MANAGEMENT

6.9.1 Introduction

Environment is now a global issue and it is deteriorating day by day. If protective measures are not addressed, the global economy would be adversely affected. Worldwide Ozone depletion and disposal of Waste are big issues which need to be solved by producing qualified Environmental Engineers. Pakistan is a developing country and relies on Agro-based industry that now faces competition under the umbrella of world trade Order (WTO). As per WTO, it certifies to those products, which must be ISO 9000 and ISO 14000.

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Pakistan requires trained personnel needed to be dealt with Environmental Management System in which they be made skillful in Water Engineering, Wastewater Engineering, Solid waste Management and Air pollution and Control Equipment. Altogether 12 courses are designed which make student capable to make himself an environmental engineer. IEEM has very good faculty in the University and offers PGD/ME in Environmental Engineering meanwhile; M.Phil by research can be obtained as per rule and regulations.

6.9.2 Vision

To produce Environmentalists who share their skill in the establishment of Environmental Management system in all Industries, Agricultural Land, Irrigation and Drainage infrastructures, Communication network systems and Rural-Urban Utilities to enter in the development of 21st Century goal of making national Economy as per World Trade Organization (WTO) requirements.

6.9.3 Objectives

To produce undergraduate/post Graduate/Masters level students skillful by achieving the following goals to become useful for re-construction of National Environmental Economy.

1. For making Water potable, learning methodologies of Water Treatment Plant, water-softening techniques Osmosis techniques shall be procured.
2. For making safe Disposal of wastewater from various developments, learning methodologies of Wastewater treatment technologies; like Wastewater treatment Plant, evaporation Ponds, Oxidation Ponds and in addition the design of Pipe network systems shall be procured.
3. For removing the solid Waste Problem in cities, industries, town and rural areas, a very comprehensive learning methodologies can be extended; like understanding the Generation, Collection, transferring and disposal techniques of Municipal Solid Waste, Industrial Waste and Hospital Waste.
4. To make efforts to clean the Atmosphere, the learning methodologies; like understanding air pollutants and the design of Air pollution Control equipment shall be procured.
5. To make student capable to design the project in which he shall learn implementation of Environmental Management System under the Umbrella of ISO-14000, Environmental Impact assessment and Strategic Environmental assessment.

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More details about the course and other activities of the Institute may be obtained from:

Prof. Dr. Khan Muhammad Brohi
Director, Institute of Environmental Engineering & Management
Phone: 022-2772250 Ext. 7300

6.10 MEHRAN UNIVERSITY INSTITUTE OF SCIENCE AND TECHNOLOGY DEVELOPMENT

Mehran University Institute of Science, Technology & Development (MUISTD) is established at Jamshoro to produce much required highly qualified manpower at various levels of policy, management and administration for promotion and development of Science and Technology Enterprise and Innovation Management in private and public sectors. The development of Science and Technology (S & T) is closely linked with an important national goal of rapid and sustainable socio-economic development. MUISTD is, hence established with a wide mandate to produce highly qualified manpower at M.S., M.Phil and Ph.D degree level. As well as, formally train the existing personnel already in charge in this field and conduct research on all aspects of an effective and viable S&T policy framework to achieve this objective. It is envisaged to be a center of excellence for teaching, training and research required to respond to the modern day challenges and to cater to the needs of socio-economic development of the country. Its Research and Development (R&D) activities are aimed at focusing on all important issues relating to contents, development, management, and exploitation of human and natural resources and other means and methods for rapid socio-economic uplift of the country. The clients of research results and training of this institute would be the Universities, R&D organizations, Government, Industry, Business individuals in public and private sector, national and international organizations, other developed and developing countries etc. It is intended to serve as a nerve centre and conduct practical review of the situation currently and futuristically, and render suitable advice for the required scientific and technological development to Academics, Research, Industry, Business, Government, etc. MUISTD, therefore, is aimed at developing knowledge and devising sustainable S&T policies in consonance with the national priorities and goals taking different perspectives of socio-economic development into account.

Dr. Arabella Bhutto
Co-Director
Tel: 022-2772430-31
Fax: 022-2772432
Email: co.director@admin.muett.edu.pk

7.1 STUDENTS CENTRE

It is a matter of immense pleasure that this University has developed befitting and communal facilities for students and staff like, Students Centre. Hence, the said Students Centre has been constructed over an area of 20000sft as per Vision & perspective Plan of the University. However the said Centre is consisting of the following facilities for the students.



7.1.1 Indoor Sports & Communal Facilities:

- Information Service
- Indoor Games
- Shops 04 Nos
- Cafeteria (for Boys & Girls)
- Kitchen
- Debating Society
- Alumni Office
- Graduate Registration
- Space for Bank
- Post Office
- Store
- Internet Café
- Indoor Games

7.2 GYMNASIUM

There were absolutely no sports facilities available in the university except for minor type indoor games which were individually available in the hostels only. Therefore, Mehran University was utilizing the sports facilities owned by Sindh University. But with the passage of time the said facilities were withdrawn by Sindh University for its own increased student population. As Such, Mehran University has developed Sports Complex (Gymnasium) of its own having facilities of the national and international standards, so that maximum number of games could be played, as well as maximum number of students could get benefit from the facilities. The Gymnasium Hall covers all indoor games as well as general facilities. The Gymnasium Hall has been constructed over the

area of 25845sft. However, the Gymnasium Hall is consisting of following facilities:

7.2.1 Ground Floor:

- Offices for Director & other Staff
- Store (02 Nos)
- Computer Room
- Fitness Centre
- Lockers and Changing Rooms
- Committee Room
- Foyer
- Kitchen
- Lounge (02 Nos)
- Play Area

7.2.2 First Floor:

- Audience Area

7.3 LIBRARY

The Mehran University of Engineering & Technology Library & Online Information Center contains more than 132000 books related to Engineering Science and Technology. Access to 29 E-databases for electronics journals and e-books are available on-line within the university campus and outside the campus under Digital Library Program; a Project of Higher Education Commission, most of these resources are available full text.

There are more than 21000 text books in the Book Bank which are loaned to students for one term on nominal rent. The collection of books is updated continuously and new books are acquired on the recommendations of experienced faculty members, which makes collection most suited and beneficial to graduate and under-graduate students. In addition, latest reference and other books are also acquired every year to keep the users of the library abreast with the latest information on Science & Technology specially engineering and its allied subjects. In addition to providing the readers with in-house collection, services are also provided for inter-library loan and photocopying of literature including technical information centers within and outside Pakistan. This service is further enhanced by cooperation among Muslim Countries under COMSTECH.

The Mehran University of Engineering & Technology Library & Online Information Center also offers following services:

- MUET Library & Online Information Center provides the facility of

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Multimedia Center, which include softcopy of books, CD/DVD Writing, Scanning and printing to students, faculty members and researchers. Multimedia center also provide space for researcher with I-7 Computer (Wireless Headphones; Hi Fi Audio system) connected with Wi-Fi Networks. Full access of HEC Digital Library provided possible assist to create bibliography of work electronically (zotero, Endnote)

- In MUET Library & Online Information Center students and faculty members are also provided internet facility to use computer for their project work for which PCs are installed in the Online Information Center of the library with a network printer and photocopier.

- The Catalog of books is computerized and accessible the library of Congress gateway <http://www.loc.gov/z39.50> serving one point access interface for books catalog, full text electronic journals and e-books on web.

- There are also a blogs <http://muetfacultycoordination.blogspot.com> to give the access of books recommended in teaching plan. Another blog <http://mueteresources.blogspot.com> to give the access of e-books, Journals, video lectures, dictionaries and encyclopedias etc, and <http://muetdigitallibrary.blogspot.com> E-books, Journals, Tutorials and Thesis's Guidance.

- The MUET Library & Online Information Center also offered Wi-Fi service in whole Library inside Building.

- The library is heavily used by the students, faculty members and researchers and is open from 8:00 am to 9:00 p.m. and also on Saturday and Sunday during Examinations period. Professional staff available at service points to meet needs of the readers. Besides the MUET Library



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& Online Information Center, individual departments have established their own seminar libraries, which cater to the specific needs of the departments. A union catalogue of books available on Campus is also functional.

7.4 STUDENT FINANCIAL AID OFFICE (SFAO)

Mehran University of Engineering & Technology, Jamshoro by realizing the continuous rise in educational expenses, took the initiatives (for providing financial relief to meritorious and deprived students with the financial assistance /need base scholarship programs. In this regard, the University established the "Student Financial Aid Office" (SFAO) in August 2006, to elevate the socio-economic position of the needy & deserving students by providing access to quality education through Need-based and Merit Scholarships. Hence, the scope of Student Financial Aid Office (SFAO) has been extended, and as per directives of Higher Education Commission (HEC) Islamabad, the Mehran University of Engineering & Technology has also established the "Student Advancement Fund Endowment (SAFE)/ Student Advancement Fund (SEF)" with the collaboration of Promotion of Education in Pakistan (PEF) Foundation, USA.

All Scholarships / Financial Aid Cases are routed through Student Financial Aid Office (SFAO). A centralized record of all students getting any Financial Aid is kept in the Student Financial Aid Office (SFAO). At the moment, SFAO deals more than 36 various scholarships donated by various national and international donors. Recently, USAID Pakistan with the collaboration of Higher Education Commission, Islamabad, has allotted 73 scholarships to the students of Mehran University of Engineering & Technology, Jamshoro.

Persons to be contacted:
 Prof. Dr. Tauha Hussain Ali
 Focal Person SFAO
 Mr. Kashif Usman Dars
 Assistant Director, (SFAO)
 Phone # +92 22 2772701
 Fax # +92 22 2771274
 Email: Kashif.dars@admin.mueta.edu.pk,
SFAO@admin.mueta.edu.pk

Links for the Scholarship forms:

- Departmental Staff Offices
- MUET Official Website
- Photocopier Shops within the Campus

List of Various Donor and Name of Scholarships

S#	DONOR	NAME OF SCHOLARSHIP
1	Mehran U.E.T, Jamshoro	Internal Merit Scholarship Financial Assistance Poverty Scholarship (Hardship)
2	Prime Minister's National ICT R&D Fund	National ICT Scholarship
3	USAID Pakistan with the collaboration of HEC, Islamabad	USAID Pakistan Need & Merit Based Scholarship
4	All District Zakat & Ushar Committees of Sindh	Merit Scholarship
5	Education & Literacy Department Government of Sindh	Endowment Fund Scholarship
6	Pakistan Engineering Congress (PEC), Lahore.	PEC Scholarship
7	Higher Education Commission (HEC), Islamabad.	Provision of Higher Education Opportunities for Student of Baluchistan and Fata
8	Ministry of Religious Affairs	Minority Scholarship
9	Punjab Education Endowment Fund (PEEF), Lahore.	PEEF Scholarship
10	Various Embassies	Scholarship for Foreigner students
11	National Bank of Pakistan.	NBP Loan
12	Pakistan Engineering Council	PEC Merit Scholarship
13	Office of Zila Nazim District Government Khairpur	Zila Nazim Khairpur Scholarship
14	Petroleum Institute of Pakistan (PIP), Karachi.	PIP Scholarship
15	Directorate of Collages Higher and Technical Education Balochistan, Quetta.	Balochistan Scholarship
16	BHP Billiton (Pakistan)	BHP (Pakistan) Need Cum Merit Scholarship
17	Mr. Tufail and other Sindhi Engineering in America	SEAFSA Scholarship
18	Sindhi Association of North America Dr. Feroz Ahmed Memorial Educational (FAME) Scholarships	SANA-FAME Scholarship
19	Institution of Engineering Pakistan, Saudi Arabian Center.	IEP-SAC Scholarship
20	Professional Educational Foundation	PEF Scholarship
21	Shah Hyder Educational Society SANN (SHESS), SANN UC, District Jamshoro	Sain G. M Sayed Need cum Merit Scholarship
22	Sui Sothern Gas Company limited	SSGC Scholarship
23	Kaneez Fatima Welfare Trust, Rawalpindi	DIYA Scholarship
24	Fauji Fertilizer Company Limited	FFC- Scholarship
25	Babar Ali Foundation, Pakistan	Syeda Mubarak Begum Scholarship
26	Sindh Socio Economic Development Foundation	Sindh Socio Economic Development Foundation Scholarship
27	Quaid-E-Azam Aligarh Trust	Quaid-E-Azam Aligarh Scholarship
28	TEXPO, IT consulting company	Mentoring a Talent
29	Fauji Foundation, Rawalpindi	FF_ Scholarship
30	Prof. Dr. M. Aslam Uqaili, Vice-Chancellor Mehran U.E.T, Jamshoro.	(Late) Abdul Qayoom Uqaili Need cum Merit Base Scholarship (Late) Taj Mohammad Sahrai Need cum Merit Base Scholarship
31	Prof. Dr. Mujeeb-u-ddin Sahrai, Professor, Department of Mechanical Engineering MUET, Jamshoro	Sardar Begum Sehrai Need cum Merit Base Scholarship (Late) Ghulam Rasool Shaikh Need cum Merit Base Scholarship (Late) Mrs. Shafiqha Begum Shaikh Need cum Merit Base Scholarship
32	Mr. Munir Ahmed Shaikh, Director Finance Mehran U.E.T, Jamshoro	(Late) Master Kishanchand Chowdhry Need cum Merit Base Scholarship
33	Prof. Dr. B.S. Chowdhry, Dean FEES, Mehran U.E.T, Jamshoro.	Haji Ahmed Ali Khalifo Memon Diplai Need Cum Merit Scholarship
34	Prof. Dr. Hafeez-ur-Rahman, Dean, Faculty of Engineering, Mehran U.E.T, Jamshoro	(Late) Mr & Mrs. Jhando Khan Lashari Need cum Merit Base Scholarship
35	Prof. Dr. Bakhshal Khan Lashari, Director, Water Resources Engineering & Management, MUET, Jamshoro	(Late) Khan Muhammad Pathan Need cum Merit Base Scholarship
36	Dr. Dur Muhammad Pathan, Assistant Professor, Department of Mechanical Engineering, MUET, Jamshoro	(Late) Agha Habibullah Khan Need cum Merit Scholarship
37	Prof. Dr.Agha Faisal Habib, Department of Civil Engineering MUET, Jamshoro	

7.5 TRANSPORT

The University has a fleet of buses to facilitate the students, running on various routes between the campus and Hyderabad/ Qasimabad / Latifabad / Kotri. Students have to pay nominal transport charges on yearly basis for the use of this facility.

7.6 RESIDENTIAL ACCOMMODATION

Ten hostels including three (03) for female students are available for the undergraduate student's accommodation. The hostels can accommodate a total of 1808 students. Since the available seats for the upcoming batch is very limited, the University is not able to accommodate the students of first year. The students are advised to arrange the private accommodation. The allotment of seats in hostels is done by allocating the district-wise quota proportional to seats allocated for admission in university. Further the district wise seats are allotted on first come first serve basis, excluding the district from where the buses service is provided by the university. All the students who are interested in hostel accommodation can apply through a prescribed form which is available in the Provost office. All the residents have to follow strictly the hostel rules and regulations. The hostels are managed by the Provost Hostels, Additional Provost Hostels, Deputy Provost Hostels and Wardens.

For any further information, please contact:
 Dr. Dur Muhammad Pathan
 Provost (Hostels),
 Telephone No. 022-2772299
 Prof. Ghulam Abbas Mahar
 Additional Provost (Hostels),
 Telephone No. 022-2772299
 Prof. Ghulam Yasin Mughal
 Additional Deputy Provost (Hostels),
 Telephone No. 022-2772299

7.7 INFORMATION AND COMMUNICATION PROCESSING CENTRE

Information provisioning is recognized as the most integral service in Education domain that underpins all departmental and interdepartmental activities, Information Communication and Processing Center (ICPC) is instituted for the purpose. The centre utilizes high speed Optical Fiber connectivity to ensure access to information at lightning speed. Equipped with latest devices and servers; the Centre is dedicatedly working to

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provide 24hr data and voice services to Admin block, departments and Hostels. To encourage Research and development related activities between universities and uplift MUET at National level, the centre connects MUET with fifty two (52) other universities through PERN (Pakistan Educational Research Network). Besides the students are ensured unhampered services through VPN accounts, which is provided on request, to work from their homes for 24 hrs.

Following are some of the facilities student would be able to avail:

- High Speed Internet connection with backbone of 100MB.
- High speed network laid entirely on Fiber Optics.
- 24x7x365 hrs Voice Exchange/Intercom services.
- Digital Library Services through PERN.
- HEC online journals access through PERN.
- VPN service for students working from their Homes.
- Online Courseware / Material and presentations.
- Hardware and Software resources sharing.
- Video Conferencing System (Lectures and Presentations sharing) between all universities of Pakistan through PERN.
- Provide Email accounts on MUET domain.
- Free Access to Genuine Microsoft Software (Operating System and Application Software).



7.8 MEDICAL ASSISTANCE

A part-time dispensary has been established in one of the hostels for the resident students, which is manned by a qualified doctor and a dispenser. Adequate quantities of essential medicines are also available in the dispensary for the minor ailments. Major sickness problems are referred to Liaquat University Hospital, which is quite nearby. An ambulance is also available for the sick students to take them to the hospital in any emergency.

7.9 SPORTS FACILITIES

The Directorate of Sports is responsible to entertain the students of this University by arranging Indoor and Outdoor sports events i.e. Inter Hostel for hostler students and Inter Department for department competitions. The University also organizes and participate Interuniversity Sports Events in a large number. Previously lot of the University students has remained Gold, Silver and Bronze Medalist. The University sports teams not only participate in Sindh Universities Sports Gala event but this University has also organized the same event at a high level. The newly joining students can participate in Inter Department, Inter Hostel and Inter University events particularly in Basketball, Shooting ball, Squash, Table Tennis, Badminton, Athletics, Cricket, Football, Hockey, Tug of War, Handball, Malh, Chess, Tennis etc. In addition coaching camps for the training of students/players are arranged game wise, the selection of the university sports teams is purely consist on merit and performance of the layers. The sports Material for playing games on behalf of this university will be provided by the directorate of sports.

This University also provides sports material to all the hostels through the Provost Hostels for daily practice. This university organizes Inter University Sports Events between 03-04 universities under its own objectives.

These sports are organized and managed by Directorate of Sports, which is headed by:

Engr. Najeeb-ur-Rehman Channa
Director Sports,
Phone: 0221-771530, Mobile: 0300-9373574



7.10 DIRECTORATE OF INDUSTRIAL LIAISON

A Directorate of Industrial Liaison has been established in the University to facilitate the organization of industrial/ field training for the students of the University. In addition to arranging the practical training for the undergraduate students, the Directorate of Industrial Liaison also performs the following functions.

- To collaborate with the industries for identifying their problems and attempting to solve them through efforts of experienced and qualified professors of the University.
- To arrange exchange of technical staff between the University and industry for the mutual benefit of the both.
- To guide and supply information to the final year students regarding their possible employment in the industrial/commercial sector.
- To arrange internships during summer and winter vacations for the students.

Dr. Muhammad Moazam Baloch
Director, Industrial Liaison,
Ph: 022-2771425

7.11 STUDENTS' ADVISORY COMMITTEE

Mehran University Students' Advisory Committee was formed to bridge the gap between administration, teaching community and students. Committee helps students to organize academic and social activities and also to resolve their academic and legal grievances.

Prof. Dr. Khan Muhammad Brohi
Director, Institute of Environmental Engg. & Management,
Advisor Students' Affairs
Phone 0222772753

Prof. Tahseen Hafiz
Chairman, Department of Software Engg.
Deputy Advisor Students' Affairs,

Prof. Ghulam Abbas Mahar
Assistant Professor,
Department of Basic Sciences & Related Studies,
Deputy Advisor Student' Affairs

Prof. Hafiz Arshad Ali Memon
Assistant Professor,
Department of Civil Engineering
Deputy Advisor Students' Affairs

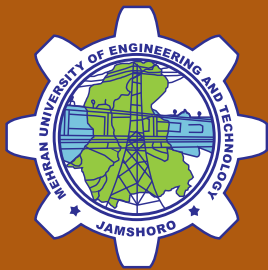
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7.12 The University has signed Memorandum of Understanding with the following Foreign Universities/ Institutes during the years 2004-2015.

S#	DONOR	DATE OF AGREEMENT	PERIOD
1	University of Nottingham, U.K (Original)	28-04-2005	5 Years
	University of Nottingham, U.K (this revised agreement applies to the University of Nottingham's campuses in the United Kingdom, china & Malaysia)	30-09-2011	5 Years
2	Montan Universitaet, Leoben, Republic of Austria	07-06-2005	5 Years
3	University of Leeds, U.K.	28-06-2005	No time limit
4	Colorado State University, Fort Collins, Colorado, USA	15-08-2005	5 Years
5	Kyushu Institute of Technology, Japan	27-10-2005	5 Years
6	University of Central Florida, USA	23-08-2006	2 Years
7	Middle East Technical University Ankara, Turkey	13-09-2006	No time limit
8	Pakistan Space & Atmosphere Research Commission (SUPARCO), Karachi, Pakistan	27-02-2007	No time limit
9	University of Illinois, at Urbana, Champaign, USA	28-03-2007	3 Years
10	University of Exeter, U.K	31-02-2007	2 Years
11	Aalborg University Esbjerg, Denmark	09-06-2007	No time limit
12	Benazir Bhutto Shaheed Youth Development Program, Works & Services Department, Government of Sindh, Pakistan	28-07-2008	31-12-2008
13	University of Southampton, U.K	06-08-2008	5 Years
14	Asian Institute of Technology (AIT), Bangkok, Thailand	15-08-2008	5 Years
15	University of Bedfordshire, UK	20-11-2008	No time limit
16	Benazir Bhutto Shaheed Youth Development Program, Irrigation & Power Department, Government of Sindh, Pakistan.	12-01-2009	No time limit
17	University of Pittsburgh, Pennsylvania, USA	19-07-2009	2 Years
18	Global University, Beirut, Lebanon	26-10-2009	3 Years
19	Faculty of Engineering, University of Southern Denmark, Denmark	27-10-2009	5 Years
20	City University, London, UK (Original)	07-10-2009	One Year
	City University, London, UK (Original)	05-10-2011	One Year
21	The United States Educational Foundation in Pakistan, Islamabad	11-12-2009	No time limit
22	Charles Sturt University, Australia	18-06-2010	No time limit
23	Isra University, Hyderabad, Sindh, Pakistan	16-08-2010	No time limit
24	Alborg University, Center for Teleinfrastruktur (CTIF), Denmark	05-11-2010	5 Years
25	Pakistan Council of Scientific & Industrial Research, Islamabad	28-01-2011	3 Years
26	Brunel University, West London, UK.	31-03-2011	3 Years
27	Technische Universitat Darmstadt, Germany	20-08-2011	5 Years
28	University of Malaya, Malaysia	20-09-2011	No time limit
29	University of Utah, USA	12-12-2014	5 Years

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**MUET, SHAHEED ZULFIQAR ALI BHUTTO
KHAIRPUR MIR'S CAMPUS**



8.1 Introduction

In order to promote engineering education in the interior region of the province and to reduce the supply-demand gap of engineering professionals, the Government of Sindh vide notification No. SO(C-IV) SGA&CD / 4-29/09 dated 2nd April, 2009, established a constituent College of Mehran University of Engineering and technology, Jamshoro named as Mehran University College of Engineering & Technology, Khairpur Mir,s.

The college has been further upgraded as Campus of MUET, Jamshoro vide Notification No. Estt(Teach:)/-30 of 2013 dated 19-02-2013 and named as MUET Shaheed Zulifqar Ali Bhutto (SZAB) Campus, Khairpur Mir's. The main objectives of the establishment of the College/Campus are as under:-

- To provide science and technology education to the people of interior Sindh at their door step.
- To upgrade the technical skills of the people of Sindh.
- To meet the national demand for qualified engineers required for national industrial development.
- To promote the rural talent, enabling it thereby to participate in mainstream of national growth.

The number of students admitted to the First Year classes in all six undergraduate disciplines is 340 out of which 60 candidates are admitted under the self finance scheme.

The MUET SZAB Campus, Khairpur Mir's offers undergraduate program in six disciplines, viz. Civil Engineering, Mechanical Engineering, Electrical Engineering and Petroleum & Natural Gas Engineering. Being a campus of Mehran University of Engineering & Technology, the campus adopts the same teachings system, courses of studies, rules and procedures for admissions, examination system and student conduct and discipline as those of practiced by the university.

The campus headed by the Pro-Vice Chancellor is working under the administrative and academic Supervision of Mehran University of Engineering & Technology Jamshoro.

8.2 Officers of the Campus

Mr. Ghulam Sarwar Kandhir
Pro-Vice Chancellor, MUET, Shaheed Z.A Bhutto Campus Khairpur

Mr. Atta Muhammad Phul Chairman, Civil Engineering Department
Mr. Shakir Ali Soomro In-charge Chairman Electrical Engineering Department
Dr. Syed Sadiq Ali Shah Chairman, Mechanical Engineering Department
Mr. Asad Ali Memon In-charge Chairman, P & G Engineering Department
Dr. Rafique Ahmed Memon In-charge Chairman, Basic Sciences & Related Studies
Mr. Mujeeb Ahmed Soomro Assistant Controller Examination
Mr. Waqas Ali Channa Assistant Director Finance
Mr. Muhammad Memon Workshop Superintendent
Mr. Waseem Ahmed Bhatti Assistant Registrar (MIS)
Mr. Abdul Rasheed Phulpoto Deputy Director ICPC
Mr. Allah Bachayo Memon Assistant Librarian
Mr. Imtiaz Ali Solangi Assistant Registrar (Establishment)
Mr. Faiq Gul Memon Assistant Registrar QEC/In-charge MIS
Mr. Asif Hussain Shah Jillani Assistant Director Sports
Mr. Shakeel Ahmed Mughal Estate cum Security Officer
Mr. Nadeem Ahmed Sarhandi Assistant Registrar Camp Office
Mr. Ayaz Ahmed Memon Student Welfare Officer

8.3 Fields of Study and Teaching Faculty

Mehran University of Engineering and Technology, SZAB Campus, Khairpur Mir's offers courses leading to Bachelors' degrees in the following disciplines. All the six Degrees are in Engineering and are titled Bachelor of Engineering (Name of field); e.g B.E Civil.

1. Civil Engineering
2. Electrical Engineering
3. Mechanical Engineering
4. Petroleum & Natural Gas Engineering
5. Electronics Engineering
6. Software Engineering

8.3.1 DEPARTMENT OF BASIC SCIENCES & RELATED STUDIES (BSRS)

8.3.1.1 About The Department

This department teaches the courses of Mathematics including Statistics, Computer Science, Pakistan Studies and Islamic Studies/Ethics. The extensive research work is also carried out by the teachers of this department.

8.3.1.2 The Faculty

Dr. Rafique Ahmed Memon
Chairman of the Department
Prof. Lal Chand (On Contract)
Professor
M.Sc (Maths): Pakistan
Dr. Rafique Ahmed Memon
Assistant Professor
Ph.D. (Maths): Pakistan
Mr. Hadi Bux Chijjan
Assistant Professor
M.Sc (Islamic Studies): Pakistan
Mr. Jalil Ahmed Chandio
Lecturer
M.Sc.(Pak Studies): Pakistan

Mr. Kaleemullah Bhatti
Lecturer
M.Sc.(Maths): Pakistan
Mr. Nek Mohammad Katber
Lecturer
M.Sc.(Maths): Pakistan
Mr. Sanaullah Memon
Lecturer
M.Sc.(Maths): Pakistan
Mr. Abdul Majid Indhar
Lecturer
M.Sc.(Maths): Pakistan
Mr. Basheer Ahmed Durs
Lecturer
M.Sc.(Islamic Studies): Pakistan
MS. Qurat-ul-ain Talpur (On Contract)
Lecturer
M.Sc.(English): Pakistan
Mr. Kashif Ahmed Memon (On Contract)
Lecturer
M.Sc.(Pak Study): Pakistan
Mr. Nabi Bux Shar (On Contract)
Lecturer
M.Sc.(Maths): Pakistan

8.3.2 DEPARTMENT OF CIVIL ENGINEERING

8.3.2.1 About The Department

Civil Engineering is the process of directing and controlling natural resources for the use and benefit of mankind through construction of various structures. It applies engineering practices to the planning, design, construction and operation and maintenance of structures such as buildings, roads, bridges, railways, factories, airports, irrigation schemes, docks, harbors, dams, sea defenses, flood control systems, water supply and sewerage disposal schemes, etc. Thus, civil engineering is probably the largest and broadest discipline of engineering.

The Department of Civil Engineering of the Mehran University of Engineering & Technology, Shaheed Z.A Bhutto Campus Khairpur Mir's provides essential and advance engineering education according to the requirements of field. The various fields of specialization are introduced to the final year students by assigning them a thesis project. The thesis projects may be specific to a particular specialization of civil engineering like Structural Engineering, Geotechnical Engineering, Transportation Engineering, Irrigation and Drainage Engineering, Construction Management, Environmental Engineering, etc.



The department teaches many courses relevant to the various fields of Civil Engineering. Theory classes of different subject are complemented by tutorials and laboratory works, for which adequate facilities are with equipment have been established. In addition, the students are taken to field visits of the Civil Engineering projects such as building structures, road construction works, geotechnical works, water treatment plants, etc. During the summer vacations the students are also sent on various Civil Engineering projects for internship. This is to expose them to practical engineering practices being actually implemented. The department has a set up a software Laboratory which provides computing facility using application of various software related to the field of Civil Engineering.

8.3.2.2 Laboratory Facilities

The numbers of laboratories have been established in the department, which include;

1. Structural Engineering Laboratory
2. Fluid Mechanics & Hydraulics
3. Surveying Laboratory

4. Computer Laboratory
5. Software Laboratory
6. Highways Engineering Laboratory
7. Soil Mechanics Laboratory
8. Environmental Engineering Laboratory

8.3.2.3 The Faculty

Prof. Atta Muhammad Phull
Chairman of the Department
Phone: 0243-715364
Prof. Atta Muhammad Phull
Professor
M.E. Pakistan
Dr. Abdul Aziz Ansari (On Contact)
Professor
Ph.D. Pakistan
Dr. Kanya Lal Khatri
Assistant Professor
Ph.D. Australia
Mr. Syed Naveed Raza Shah (On Study Leave)
Assistant Professor
M.Sc. United Kingdom
Ms. Rabia Soomro
Assistant Professor
M.E. Pakistan
Mr. Ghulam Shabir Solangi
Assistant Professor
M.E. Pakistan
Mr. Sajjad Ali Mangi
Assistant Professor
M.E. Pakistan
Mr. Abdul Qayoom Memon (On Study Leave)
Lecturer
B.E. Pakistan
Mr. Aurangzeb Memon
Lecturer
B.E. Pakistan

Mr. Raja Oad
Lecturer
B.E. Pakistan
Mr. Abdul Razzaque Sandhu (On Study Leave)
Lecturer
B.E. Pakistan
Mr. Hemu Karira (On Study Leave)
Lecturer
B.E. Pakistan
Mr. Dildar Ali Mangnejo
Lecturer
B.E. Pakistan
Mr. Imtiaz Ali Memon
Lecturer
B.E. Pakistan

8.3.3 DEPARTMENT OF ELECTRICAL ENGINEERING

8.3.3.1 About The Department

Electrical Engineering is important discipline of engineering which deals with the study and application of Electricity, Electronics, Electromagnetism and various other electrical systems. Electrical Engineering Department of the campus had been established in 2010 and 1st intake of 47 students (10 Batch) and 2nd intake of 56 student (11 Batch) have successfully their 04 years of B.E Electrical Engineering Program which has been accredited by Pakistan Engineering Council as well.

The department offers both the undergraduate and postgraduate



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programs. The courses of the programs have been drawn from the curriculum guidelines of HEC/PEC and duly approved by the Academic Council of the university. There are 70 seats offered every year for admission in undergraduate program and student across the province are eligible to apply for the program. The department has 15 full time qualified faculty members with vast teaching and research experience.

From academic session July 2014, the department has also been started Postgraduate Program, M.E in Electrical Power under the Directorate of Information and Communication Technologies (ICT), MUET, Jamshoro.

8.3.3.2 Laboratory Facilities

The department of Electrical Engineering is equipped with state of the art labs to cater the practical/experimental requirements to supplement the course work of the B.E Electrical Program. In this respect, following 09 Labs have been established and are fully functional.

1. Basic Electrical Engineering Laboratory
2. Electrical Machines Laboratory
3. Computer Laboratory
4. Power Electronics Laboratory
5. Power System Laboratory
6. Instrumentation and Control Laboratory
7. Basic/ Applied Electronic Laboratory
8. High Voltage Laboratory
9. Communication system Laboratory

8.3.3.3 Career Opportunities

Electrical Engineers have vast career opportunities in wide range of industries and organizations depending on their respective specializations. In Pakistan industries and organizations both public and private sector, such as, Atomic Energy Commission, Pakistan International Airlines, Pakistan Steel Mills, PEPCO, OGDCL, PPL, Engro Fertilizers, K-Electric Supply and various other industries/organization hire the Electrical Engineers for design, operational and managerial jobs. Electrical Engineers are generally encouraged to attend continual professional development course (CPD) and acquire skills required in the job market to secure attractive and challenging career opportunities. This department also conducts such CPD courses which help in career development.

8.3.3.4 The Faculty

Mr. Shakir Ali Soomro
Chairman of the Department
Phone: 0243-715365 Ext. 7006
Prof. Agha Zafarullah Pathan (On Contact)
Professor
M.Sc. Germany
Prof. Abdul Qadir Chang
Professor
Ph.D. United Kingdom
Mr. Nayyar Hussain Mirjat (On Lein)
Assistant Professor
M.E. Pakistan
Mr. Shakir Ali Soomro
Assistant Professor
M.E. Pakistan
Mr. Mazhar Ali Lund Baloch (On Study Leave)
Assistant Professor
M.E. Pakistan
Mr. Nadeem Ahmed Tunio
Assistant Professor
M.E. Pakistan
Mr. M. Rafique Naich (On Study Leave)
Lecturer
M.E. China
Mr. Arsalan Ansari (On Study Leave)
Lecturer
M.E. South Korea
Mr. Ahsanullah Memon
Lecturer
B.E. Pakistan
Mr. Touqeer Ahmed Jumani
Lecturer
B.E. South Korea
Mr. Sajid Hussain Qazi (On Study Leave)
Lecturer
M.E. Malaysia

Mr. Fida Hussain Memon
Lecturer
B.E. Pakistan
Mr. Kalsoom Baghat
Lecturer
M.E. Pakistan

8.3.4 DEPARTMENT OF ELECTRONIC ENGINEERING

8.3.4.1 ABOUT THE DEPARTMENT

Electronic Engineering has played a very vital role in modern industrial and human development since decades that is why it is growing field with the passage of every passing time. Continuous advancement in Electronic Engineering in terms of fabrication processes including material, devices, circuit and control has lead it to have significant importance in emerging technologies for its use in all major industrial applications. Thus has as a strong share in the market, which needs such quality programs to be initiated regarding educating the youth of society to create highly skilled individuals in this important and most challenging discipline of engineering at both the undergraduate as well as post graduate levels.

Electronic Engineering has revolutionized the standard of mankind, living style and industrial growth using modern electronics and microprocessor technology, therefore its significance cannot be denied. The Department of Electronic Engineering offers quality degree program at undergraduate level i.e.

B.E (Electronic Engineering)

The focus of this program is to produce sound technical manpower to further strengthen planning, designing of innovative projects in this particular area. The students during the entire degree program will learn different subjects on diversified field including Microprocessors, interfacing, Automation & Robotics, Analog & Digital communication, wired & wireless Communication, Signal Processing, Industrial Electronics, Neural Networks, Instrumentation & Control, Embedded System, Sequential Circuit Design, Laser & Fiber Optics, Microwave & Electromagnetic waves, Radiating System, and Computer Communication & Networking etc.

The courses are regularly viewed and updated keeping in view the ongoing research and development in the field of Electronic Engineering. Final year students undertake projects, which help them to develop their skills in variety of field mentioned above.

8.3.4.2 Laboratory Facilities

The department of electronic engineering is equipped with the latest equipment ranging from basic electronic devices, simulators and trainers to more advanced telecommunications trainers, such as microwave and antenna trainers. Excellent course work and due practical experience, provide ample job opportunities to over graduates and both public and private sector organization, national and multinational companies. In this respect following labs have been established and are fully functional.

1. Basic Electrical Engineering
2. Basic Electronic Laboratory
3. Electronic Work Shop
4. Electrical Machines Laboratory
5. Power Electronics Laboratory
6. Communication System Laboratory
7. Digital Electronic and Microprocessor Laboratory
8. Instrumentation and Control Laboratory
9. Computer Laboratory
10. Software Laboratory

8.3.4.3 Career Opportunities

An Electronic Engineer can find lucrative jobs in well reputed private and public sector organizations such as: PTCL, KE, Fertilizer Industry, Petrochemical sector, CAA, WAPDA, Pharmaceutical, Research Organizations, Mobile Operators & Telecom Sector.

8.3.4.4 The Faculty

Following teaching staff is presently working in the department of Electronic Engineering.

Mr. Shakir Ali
Incharge Chairman of the Department
Phone: 0243-715365 Ext. 7006
Prof. Agha Zafarullah Pathan (On Contract)
Professor
M.Sc Germany

Mr. Nayyar Hussain Mirjat (On Lien)
Assistant Professor
M.E. Pakistan
Mr. Shakir Ali
Assistant Professor
M.E. Pakistan
Mr. Nadeem Ahmed
Assistant Professor
M.E. Pakistan
Mr. Ahsanullah Memon
Lecturer
B.E. Pakistan
Mr. Irfan Ahmed
Lecturer
M.E. Pakistan

8.3.5 DEPARTMENT OF MECHANICAL ENGINEERING

8.3.5.1 About The Department

Mechanical Engineering science emerged in the 19th century as a result of development in the field of physics. The field has continually evolved to incorporate advancement in technology, and mechanical engineers today are pursuing development in such fields as composites, mechatronics, and nanotechnology. Mechanical Engineering overlaps with aerospace engineering, metallurgical engineering, civil engineering, electrical engineering, petroleum engineering, manufacturing engineering, chemical engineering and other engineering disciplines. Mechanical engineers may also work in Biomedical engineering specifically with biomechanics, transport phenomena, biomechatronics and modeling of biological systems, like soft tissue mechanics.

To put it simply, Mechanical Engineering deals with anything that moves, including the human body, a very complex machine. Mechanicals engineers learn about materials, solid and fluid mechanics, thermodynamics, heat transfer, control, instrumentation, design and manufacturing to understand mechanical systems. Specialized Mechanical Engineering subjects include, cartilage-tissue engineering, energy conversion, laser assisted materials. The American Society of Mechanical Engineers (ASME) currently list 36 technical divisions, from advanced energy systems and aerospace engineering to solid waste engineering and textile engineering. Mechanical Engineering field

requires an understanding of core concepts including mechanics, kinematics, thermodynamics, materials science, structural analysis and electricity. Mechanical engineers use these core principles along with tools like computer aided engineering and product life cycle management to design and analyze manufacturing plants, industrial equipment and machinery, heating and cooling systems, transport systems, aircraft, water craft, robotics and medical devices.



8.3.5.2 Laboratory Facilities

Following labs are established in this department to cater the practical / experimental requirements of the program offered.

1. Engineering Statics Laboratory
2. Fluid Mechanics Laboratory
3. Material Testing Laboratory
4. Mechanics of Machine Laboratory
5. Thermodynamics Laboratory
6. CAD/CAM Laboratory
7. Wood Workshop
8. Fitting Shop
9. Welding Shop
10. CNC Laboratory

8.3.5.3 Career Opportunities

The breadth of the Mechanical Engineering discipline allows graduate a variety of career options. Their education enable them with the creative thinking that allows them to design an exciting product or system, the analytical tools to achieve their design goals, the ability to overcome all constraints, and the teamwork needed to design, market, and produce a system.

Mechanical Engineering graduates are sought by employers in almost all sectors of the engineering industry. These include:

- Aerospace Industry - Research, Design, Manufacturing & Maintenance of Aerospace Equipment.
- Automotive Industry - Design, Manufactures & Maintenance of Automobiles.
- Defense Industry - Design Fabrication and Maintenance of Defense Equipment.
- Electronic Industry - Design and Manufactures of components from automotive to medicine and the military.
- Fast moving consumer goods Industry - Manufacturing of products such as Household, cleaning item, personnel hygiene goods and convenience foods.
- Marine Industry - Design Fabrication and Maintenance of Marine Systems.
- Materials and Metals Industry - Material Specimen Testing, Selection of Materials and Evaluation.
- Rail Industry - Design, Manufacturing and Maintenance of rail System components from trains and tracks to electrical power systems and train control system.

8.3.5.4 The Faculty

Dr. Sadiq Ali Shah
Chairman of the Department
Dr. Sadiq Ali Shah
Associate Professor
Ph.D. United Kingdom
Mr. Manzoor Ahmed Tunio
Associate Professor
M.Sc. Ireland
Mr. Muhammad Ali Abro (On Study Leave)
Assistant Professor
M.E. Pakistan
Mr. Mujeeb Iqbal Soomro
Assistant Professor
M.E. Pakistan
Mr. Aqeel Ahmed Bhutto
Assistant Professor
M.E. Pakistan

Mr. Jahanzaib Soomro (On Study Leave)
Lecturer
B.E. Pakistan
Mr. Bilawal Ahmed Bhayo (On Study Leave)
Lecturer
B.E. Pakistan
Mr. Osama Qasmi
Lecturer
B.E. Pakistan
Mr. Aurang Zeb Wadho
Lecturer
B.E. Pakistan
Mr. Ali Anwar Brohi (On Study Leave)
Lecturer
B.E. Pakistan
Mr. Abdul Ahad Noohani
Lecturer
B.E. Pakistan
Mr. Talib Hussain Ghoto
Lecturer
B.E. Pakistan
Mr. Zaheer Ahmed Odho
Lecturer
B.E. Pakistan
Mr. Muhammad Haris Khan
Lecturer
B.E. Pakistan
Mr. Awais Junejo
Lecturer
B.E. Pakistan
Mr. Qadir Nawaz Ababsi
Lecturer
B.E. Pakistan
Mr. Ali Nawaz Sanjrani
Lecturer
M.E. Pakistan

Mr. Danish Ali Memon
Lecturer
B.E. Pakistan
Mr. Majid Ali Wasan (On Contract)
Lecturer
M.Sc. Malaysia

8.3.6 DEPARTMENT OF PETROLEUM AND NATURAL GAS ENGINEERING

8.3.6.1 About The Department

In recent years, Petroleum Engineering has gained considerable importance due to the vital role of oil & gas sector in the economy of the country. Considering the fact that especially the province of Sindh, is very rich in oil and gas reserves, the Department of Petroleum & Natural Gas Engineering was established at the campus in 2010. Successfully the first batch (K-10) has been produced in 2014 by this institute.

Our mission is to provide a quality education and conducive environment to the students and continuing a program of excellence in research with necessary skills to achieve success in their future professional careers throughout the world.

The curriculum include courses in reservoir analysis, drilling techniques, production techniques, processing, transmission, distribution, storage and economics of oil and natural gas. Additional subjects such as geology, computer application & programming, mathematics are also included in the courses. Time to time oil/gas field visits for up-to-date practical knowledge is the key feature of the department.

SPE Student Chapter Mehran University College of Engg & Tech., Khairpur Mir's is the fifth & Golden student chapter in Pakistan, established on March 25th, 2012 and that is the best forum where we can initiate the SPE activities in this part of Sindh province. The chapter has help to promote and uphold the SPE educational activities and create healthy environment for the young engineers to harness their strength in collaboration with the industry.

The Campus has signed an agreement with Petroleum Expert limited on 2014 & 2015. In the agreement, Petroleum Expert limited has donated/sponsored the Integrated Production Modeling (IPM) software equivalent of ₹ 1,105,43.00 to the campus.



The department also arranges internships during summer vacation to third and final year student with the coordination of oil & gas / E&P companies operating in Pakistan.

The SPE/SEMINAR Library available at department where more than 150 title of petroleum text books available for students.

8.3.6.2 Laboratory Facilities

Well-equipped laboratories have been established to cover the practical aspect of the oil test, drilling test, reservoir analysis, refinery process and fluid properties. Students are facilitated with a computer laboratory with latest computers, where student can work on their final year projects/Thesis, assignments and other.

The following Laboratories are available at the department:

1. Oil Testing Laboratory
2. Drilling and Production Laboratory
3. Reservoir Engineering Laboratory
4. Gas Engineering Laboratory
5. Petroleum Software Laboratory
6. General Computer Laboratory

8.3.6.3 Career Opportunities

A petroleum engineer is involved in nearly all of the stages of oil and gas field evaluation, development and production. The aim of their work is to maximize hydrocarbon recovery at minimum cost while maintaining a strong emphasis on reducing environmental impact. The various opportunities are available in oil and gas sectors in the following exploration phases, development, production, and reservoir and drilling.

8.3.6.4 The Faculty

Mr. Asadullah Memon
Chairman of the Department
Dr. M. Yaqub Soomro (On Contract)
Professor
Ph.D. United Kingdom
Mr. Asadullah Memon
Lecturer
M.E. Pakistan
Mr. Imran Ali Memon
Lecturer
B.E. Pakistan
Mr. Arshad Ahmed Lashari
Lecturer
B.E. Pakistan
Mr. Faisal Hussain Memon
Lecturer
M.E. Pakistan
Mr. Bilal Shams Memon (On Study Leave)
Lecturer
M.E. Pakistan
Mr. Adnan Aftab Nizamani (On Study Leave)
Lecturer
B.E. Pakistan
Mr. Waseem Mumtaz Kalwar
Lecturer
B.E. Pakistan
Mr. Sundar Sham Jeswani
Lecturer
B.E. Pakistan
Mr. Abdul Smaad Shiakh
Lecturer
B.E. Pakistan
Mr. Zaheer Hussain Zardari
Lecturer
B.E. Pakistan

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Prospectus 2015-16

Mr. Zeeshan Ali Lashari
Lecturer
M.E. Pakistan
Mr. Shoiab Ahmed Memon
Lecturer
B.E. Pakistan

8.3.7 DEPARTMENT OF SOFTWARE ENGINEERING

8.3.7.1 ABOUT THE DEPARTMENT

Software Engineering is the field of technology that is related to the application of theoretical approaches to the development, operation and maintenance of software. It not only pertains to the simple and rather stereotypical knowledge of only writing code for programs but it is also the study of how these approaches actually work in the real world based on different factors and engineering them accordingly to reach the desired goals. Software engineering is the creating software that is of higher quality, more affordable, maintainable, and quicker to build. Software engineering is normally sub divided into following sub disciplines.

1. Software requirements
2. Software design
3. Software development

Thus, software engineering is an important aspect of technology and it will bring significant changes and at the same time be a major factor in future developmental periods of the world.

The department offers undergraduate degree program i.e.

B.E (Software Engineering)

This program provides in depth knowledge of the subject, where in students will develop all skills regarding design and implications of modern Software Engineering through integrated courses. The courses are revised time to time keeping in view software needs of the emerging market at national & international level.

8.3.7.2 Laboratory Facilities

To meet the latest trends in software and hardware technology, the department has the following state-of-the-art laboratories. Where students are trained to meet the future needs of the technology.

1. Basic Electronic Laboratory
2. Electronic work shop

3. Electrical Machines Laboratory
4. Power Electronics Laboratory
5. Communication System Laboratory
6. Digital Electronic and Microprocessor Laboratory
7. Instrumentation and Control Laboratory
8. Computer Laboratory
9. Software Laboratory

8.3.7.3 Carrier Opportunities

Software Engineering graduate has job opportunities almost in all sectors, particularly, Software and Data ware houses , Banking sector, IT bases companies, PTCL, KE, OGDCL, SSGC, PIA, SUPARCO , WAPDA, NADRA, SOFTWARE development organizations.

8.3.7.4 The Faculty

Following teaching staff is presently working in the department of Electronic Engineering

Mr. Shakir Ali
Incharge Chairman of the Department
Phone: 0243-715365 Ext. 7006
Dr. Abdul Qadir Chang (On Contract)
Professor
Ph.D United Kingdom
Mr. Nadeem Ahmed
Assistant Professor
M.E. Pakistan
Mr. Mazar Hussain Lund (On Study Leave Abroad)
Assistant Professor
B.E. Pakistan
Mr. Muhammad Rafique Niach (On Study Leave Abroad)
Lecturer
M.E. China
Mr. Touqeer Ahmed Jumani
Lecturer
B.E. Pakistan
Mr. Sajjid Hussain Qazi (On Study Leave Abroad)
Lecturer
M.E. Malaysia

Mr. Fida Hussain (On Lien)
Lecturer
B.E. Pakistan
Ms. Kalsoom Baghat
Lecturer
M.E. Pakistan
Mr. Rameez Shaikh
Lecturer
M.E. Pakistan

8.4 ICPC (Information and Communication Processing Centre)

All the sections of the campus are linked through ICPC Service which provides high-speed communications, e-mail, and intercom & internet service.

8.5 Transport Facilities

The campus provides transport service to the students, faculty and staff along the five routes, viz. Sukkur-Khairpur Mir's, Ranipur-Khairpur Mir's, Pir Jo Goth-Khairpur Mir's, Pano Aqil-Khairpur Mir's, Thari Mirwah-Khairpur Mir's and within Khairpur Mir's City.

8.6 Sports Facilities

The campus has established a sports section which arranges various indoor and outdoor sports occasion on its own as well as in liaison with the Directorate of Sports of the University. However sports complex has been planned in the premises of residential complex for students & staff where the construction work has already commenced.

8.7 Surveillance

The Campus has a state of the art surveillance system with a central control room to monitor & review the Campus premises for security concerns.

8.8 Library

The Campus library has a total 12000 of books for all the disciplines which adequately meet the requirement of the offered programs. A new building of the Central Library is also under construction which shall be completed by end of year 2015.

8.9 Residential accommodation for students & staff has been planned which is comprising of:

Residential accommodation for students & staff shall be made available from end of July 2015. The complex shall be consisting of followings;

- i) Boys Hostels - 03 No.
- ii) Bachelor accommodation for faculty & staff.
- iii) Allied services viz water supply, drainage, electricity & road network. The following building shall be started in the residential complex from 1st July 2015.
 - i. Sports complex
 - ii. Gymnasium
 - iii. A,B,C & D type Quarters
 - iv. Girls Hostel

The Girls students shall be provided accommodation within the academic premises till completion of Girls Hostel.



RULES AND PROCEDURES FOR ADMISSION

9. RULES AND PROCEDURES FOR ADMISSION

9.1 Admission

(i) Admissions to the First Year for all the degree courses are made according to the policies and rules, framed by the authorities of the University from time to time. The rules mentioned in this prospectus are subject to revision by the competent authority as and when deemed necessary and without notice. The number of seats is fixed as per Table 9.6.1. There are other categories of candidates who are also eligible for admission, which are described in detail in the subsequent sections.

(ii) The candidates who have been allowed admission previously with any batch by this University shall not be considered for fresh admission. Their admission forms, if received by the University shall be rejected without any notice. However, if any admitted student desires to seek admission in any discipline under Self Financing Scheme, or Special Scheme, he/she may apply for the same and submit an undertaking on the stamp paper to the effect that he/she will not claim admission under Regular Scheme of the year. Similarly, if the admitted student under Self Financing Scheme, or Special Scheme, if apply for admission under Regular Scheme, he/she may apply for the same for which he/she will be required to submit an undertaking on the stamp paper to the effect that if he/she is admitted in the desired discipline he/she will not claim the refund of the money whatsoever, he/she has paid with the previous batch.

(iii) The candidates who apply for their admission on the basis of fake certificates/documents (detected before or after their admission) shall be prosecuted under criminal law and their admission shall be cancelled. Additionally, they may also be debarred for a period of three years for future admissions and all payments made to the University shall be forfeited in favour of the University.

9.2 Eligibility for Admission

(i) The candidates who have passed the Higher Secondary School Certificate (HSC/HSSC) Pre-Engineering Examination or equivalent with Physics, Chemistry and Mathematics in Annual Examination 2015 or earlier up to Annual Examination of 2013 and have secured at least 60% marks or B-Grade from any recognized Board of Intermediate and Secondary Education in Pakistan or from foreign countries, are eligible to apply for admission. In addition, the candidates who have passed Intermediate (General Science Group) in Annual Examination 2015 or earlier up to Annual Examination of 2013 and have secured at least 60% marks or B-Grade are also eligible for their admission only in Computer Systems Engineering, Software Engineering, Electronic

Engineering and Telecommunication Engineering and they will not claim their admission in any other discipline. The candidates who have passed Intermediate (Pre-Medical Group) in Annual Examination 2015 or earlier up to Annual Examination 2013 and have secured at least 60% marks or B-Grade are eligible for their admission only in Bio-Medical Engineering and they will not claim their admission in any other discipline. The candidates who have passed the above examinations or equivalent examinations before Annual Examination 2013 shall not be eligible for admission.

(ii) Candidates who have passed three years diploma from a recognized Board of Technical Education in Pakistan in an approved discipline (Civil, Electrical, Mechanical, Electronics, Chemical, Glass & Ceramics, Petroleum and Architecture Technology) in Annual Examination 2015 or earlier up to Annual Examination 2013 and have secured at least 60% marks are also eligible to apply for admission under category 'B' in the same discipline only under the Regular scheme. The candidates who have passed three years Diploma before Annual Examination 2013 shall not be eligible for admission.

(iii) Those students, who were admitted to any other institutes/ universities before applying for admission in Mehran University and were rusticated, debarred or their admissions were cancelled, shall not be considered for admission in the University. Additionally, if the students withhold information regarding such a disciplinary action and they were granted admission; their admission would be cancelled immediately after ascertaining such facts. Those candidates who have been convicted involving moral turpitude shall also be refused admission in the University.

9.3 Admission Form

Call for admissions, is advertised in the prominent regional, national newspapers as well as on website www.muett.edu.pk. The candidates are required to obtain admission forms from designated Banks in various cities and towns on payment of prescribed fees and are asked to deposit them with the same banks within the announced due date. It is mandatory to provide all the required information through online registration system. No any admission form will be entertained without having valid processing number which can be obtained only after getting through online registration system. These admission forms are then sent to the Mehran University where they are scrutinized and the forms of not eligible candidates are rejected. After this scrutiny, all the eligible candidates are sent admit cards for entry to the Pre-admission Test.

Since the admission form is a legal document any wrong information provided there-in, over-writing or tampering in any other way is illegal and may result in rejection of the form outright. The candidates are advised to submit the

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attested photo-stat copies of all the required certificates as indicated in the admission form.

9.4 Pre-admission Test

In accordance with the policies adopted by the Federal as well as Provincial Government of Sindh all the eligible candidates applying under any category are now required to appear in the Pre-admission Test organized by the University. Candidates having secured less than 40% Score in the Pre-admission Test shall not be eligible for the admission in this University.

The final merit list of the candidates for each district/category will be prepared by calculating the overall merit, based on the marks obtained in each of the following examinations, multiplying them with the respective weightage and adding the result to calculate the "Composite Percentage Number" (CPN) as described below:

Percentage of Marks in:	Multiplying Weightage
A Secondary School Certificate (Science group) (Matriculation):	0.10
B Higher Secondary School Certificate (Pre-Engg./ General Science /Pre-Medical Group) or equivalent adjusted marks*:	0.30
C Pre-admission Test	0.60

For example, if a candidate has secured 70% marks in SSC, 60% marks in HSSC and 50% marks in pre-admission test; his/her CPN would be given by:

$$CPN = 70 \times 0.1 + 60 \times 0.3 + 50 \times 0.6 = 7 + 18 + 30 = 55 \text{ (Percent)}$$

*Adjusted marks means marks secured in HSSC examination plus additional marks if any, as defined in clause 9.11, minus marks to be deducted as defined in clause 9.12.

Note: All nominees local/foreigners should submit the result of SAT, UET's, NUST's or officially approved National/International Organization or other International level Test they have passed for their admission purpose or appear in the Pre-admission Test of this University and clear the same. In case they do not clear the test they will not be considered for admission at this University.

9.5 INTERVIEWS

After the receipt of the results of Pre-admission Test a comprehensive merit

list is prepared for each district/category and a number of candidates are called for interview before the Admission Committee. The interviews are held at Mehran University, Jamshoro on the dates as announced in the newspapers and also on Website www.muett.edu.pk. This number of candidates called for interview is usually much higher than the seats available in a given district or category. The candidates are also required to bring their original certificates for verification particularly the following five certificates.

- (i) Marks Certificate of SSC (Matriculation)
- (ii) Marks Certificate of HSSC (Intermediate Pre-Engg./General Science/Pre-Medical Group in case change of group from Pre-Medical to Pre-Engg., Marks Certificate of Pre-medical Group).
- (iii) Domicile Certificate of candidate/guardian
- (iv) PRC on 'C' Form of candidate
- (v) National Identity Card/B-form (as applicable)

Those candidates appearing for interview before the Admission Committee are short of few original documents, they must submit their original documents within three days after their interview, failing which their names will be struck off from the merit list of the concerned district/category. The names of those candidates, who failed to appear for interview before the admission committee on the scheduled date and time and any intimation is received from them, be kept in pending till the preparation of First list and if fails their names shall be deleted from the merit list of concerned District/Category and they shall not be considered for the admission.

9.6 DISTRIBUTION OF SEATS

The distribution of seats for admissions are made strictly according to the rules framed for the purpose by the authorities of the University on population basis among the rural and urban areas for the Hyderabad, Mirpurkhas, Larkana and Sukkur Divisions. 24 seats have also been reserved for the candidates of Karachi Division. The admission in various districts/categories at Mehran University of Engineering & Technology, Jamshoro and Mehran University of Engineering & Technology SZAB Campus, Khairpur Mir's will be given on quota basis for the urban and rural areas. However, the award of discipline shall be given on the basis of joint merit in the districts. Any saving from the urban areas seats of any district will be given to the rural areas of the same districts and vice-versa. The number of seats allocated to each district in various disciplines and for other categories is given in Table 9.6.1 and 9.6.4 below, while the number of seats for each district/division in Sindh province (urban/rural areas) are shown in Table 9.6.2 and 9.6.5. In Table 9.6.3, description is provided concerning various categories of candidates seeking admission.

Table-9.6.1: Distribution of Seats discipline-wise for various Districts, Disciplines and Categories at Mehran University of Engineering and Technology, Jamshoro

Category	Description																		
		CE	EL	ME	ES	CS	TL	SW	CH	IN	MN	MT	PG	AR	CRP	TE	EE	BM	TOTAL
A.1	Sukkur	1	1	1	2	2	2	2	2	1	2	2	2	1	2	2	1	1	27
	Ghotki	1	1	1	2	2	3	2	2	2	1	3	2	2	1	2	1	1	29
	Khairpur	2	2	2	3	3	4	4	3	3	2	3	3	3	3	3	1	1	45
	S. Benazirabad	1	1	1	3	2	3	3	2	2	2	2	2	2	2	2	1	1	32
	N.Feroze	1	2	1	3	2	3	3	2	2	2	2	2	1	1	3	1	1	32
A.2	Larkana	1	1	1	2	2	2	3	2	2	2	2	2	2	2	2	1	1	30
	Kamber/Shahdadkot	1	1	1	2	2	2	2	2	1	1	2	2	2	2	2	1	1	27
	Shikarpur	1	1	1	2	2	3	2	1	1	1	2	1	2	2	2	1	1	26
	Jacobabad	1	1	1	2	2	2	2	2	2	1	1	2	2	2	2	1	1	27
	Kashmore	-	1	1	1	1	1	2	1	1	1	1	1	1	1	1	-	1	16
A.3	Hyderabad	7	7	8	6	8	7	7	2	4	4	3	3	4	5	5	3	2	85
	Matiari	2	3	2	2	2	2	2	1	2	2	1	1	2	1	2	1	2	30
	Tando Muhammad Khan	3	3	3	2	2	2	3	1	1	1	1	2	1	1	2	1	2	31
	Tando Allahyar	2	2	3	1	2	3	2	1	1	1	2	1	1	2	1	1	2	28
	Dadu	5	6	7	4	5	5	6	3	3	3	3	2	2	3	4	2	2	65
	Jamshoro	3	3	3	3	3	3	2	1	1	1	1	2	2	2	2	1	2	35
	Thatta	3	3	4	2	3	2	3	2	2	1	2	1	2	1	2	1	1	35
	Sujawal	3	3	2	2	2	3	2	1	1	2	1	2	1	2	2	1	1	31
	Badin	6	6	7	4	5	5	5	3	3	3	3	3	3	3	4	2	2	67
	Mirpurkhas	5	6	6	3	4	4	4	2	2	2	2	2	2	3	3	2	2	54
A.4	Umarkot	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	1	2	40
	Tharparkar	5	5	5	4	4	4	4	2	2	3	3	2	2	3	3	2	2	55
	Sanghar	7	8	8	6	6	7	7	3	4	4	3	4	4	4	5	3	2	85
	Karachi	-	-	-	2	2	2	2	2	3	2	2	-	1	-	2	-	1	21
B	Dip. Holders	2	2	2	4	-	-	-	4	-	-	-	4	1	-	-	-	19	
C	MUETE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40*	
D.1	Balochistan	-	-	-	2	2	-	-	2	-	-	2	-	2	-	-	-	10	
D.2	Foreigners	5	3	3	2	2	-	-	-	1	2	1	-	-	-	-	-	19	
D.3	Azad Kashmir	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	02	
D.4	FATA	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	02	
D.5	UET-Lahore	1	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	03	
D.6	UET-Taxila	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	01	
D.7	NWFP- UET.Peshawar	1	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	03	
D.8	Govt. of KPK	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	01	
D.9	Govt. of Punjab	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	01	
D.10	Northem Area	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	02	
D.11	GHQ	3	2	2	-	1	-	-	-	-	-	-	-	-	-	-	-	08	
D.12	Federal Capital Area	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	01	
	Total	79	78	80	74	77	77	77	53	50	50	51	50	54	50	60	30	35	1065

*Maximum 12 admissions in any discipline shall be allowed but total admissions shall not exceed 40 seats.

Explanation of Abbreviations

CE	Civil Engineering	TL	Telecommunication Engineering	MT	Metallurgy & Materials Engineering
EL	Electrical Engineering	SW	Software Engineering	PG	Petroleum & Natural Gas Engineering
ME	Mechanical Engineering	CH	Chemical Engineering	AR	Architecture
ES	Electronic Engineering	IN	Industrial Engineering & Management	CRP	City & Regional Planning
CS	Computer Systems Engineering	MN	Mining Engineering	TE	Textile Engineering
EE	Environmental Engineering	BM	Biomedical Engineering		

Table-9.6.2: Distribution of seats for various districts (Urban / Rural basis) in Sindh Province at Mehran University of Engineering and Technology, Jamshoro

Category	Districts	Number of Seats		
		Urban Areas	Rural Areas	Total Seats
A.1	Sukkur	10	17	27
	Ghotki	03	26	29
	Khairpur	05	40	45
	Shaheed Benazirabad	05	27	32
	Naushehro Feroze	02	30	32
	TOTAL	25	140	165
A.2	Larkana	09	21	30
	Shahdadkot	03	24	27
	Shikarpur	04	22	26
	Jacobabad	04	23	27
	Kashmore	02	14	16
	TOTAL	22	104	126
A.3	Hyderabad	71	14	85
	Matiali	02	28	30
	Tando Muhammad Khan	04	27	31
	Tando Allahyar	05	23	28
	Dadu	09	56	65
	Jamshoro	03	32	35
	Thatta	02	33	35
	Sujawal	00	31	31
	Badin	06	61	67
	TOTAL	102	305	407
A.4	Mirpurkhas	11	43	54
	Umerkot	00	40	40
	Tharparkar	00	55	55
	Sanghar	13	72	85
	TOTAL	24	210	234
A.5	All Districts of Karachi	00	00	21
	GRAND TOTAL			953

Table 9-6.3: Description of remaining categories of candidates seeking admission

Category	Description	Seats
(B)	Candidates who have passed Diploma Examination in Civil, Mechanical, Electrical from Government Technical College/Polytechnic Institute/Govt. Habib College of Technology and are domiciled in the districts of categories A.3 and A.4. The domicile for admission of diploma holders in Electronics, Petroleum, Chemical/Glass & Ceramics and Architecture Technology will be of categories A.1, A.2, A.3 and A.4. Diploma holders shall be considered for admission under this category only.	19
(C)	<p>Real sons/daughters/brothers/sisters of Mehran University employees (serving or retired, deceased, on lien or working on deputation with other Institutions) shall be considered for admission to first year class against the reserved seats on the following criteria:</p> <ol style="list-style-type: none"> i. First preference will be given to real sons/daughters of employees who are confirmed in the University service and have at least three years continuous university service at their credit. ii. Second preference will be given to real sons/daughters of employees who are confirmed in the University service and have less than three years University service at their credit. iii. Third preference will be given to real sons/daughters of employees who are not confirmed in the University service but have at least three years continuous University service at their credit. iv. Fourth preference will be given to real brothers/sisters of employees who are confirmed in the University service and have at least three years continuous University service at their credit. v. Fifth preference will be given to real brothers/sisters of employees who are confirmed in the University service and have less than three years University service at their credit. vi. Sixth preference will be given to real brothers/sisters of employees who are not confirmed in the University service but have at least three years continuous University service at their credit. vii. Seventh preference will be given to real sons/daughters of employees who are not confirmed in the University service and have less than three years University service at their credit. viii. Eighth preference will be given to real brothers/sisters of employees who are not confirmed in the University service and have less than three years University service at their credit. <p>Note: The merit with regard to the category “C” will be determined as per policy of the University. A copy of the appointment order, confirmation order and affidavit regarding relationship with candidate of the employee must be attached with the admission form.</p>	40
D.1	<ol style="list-style-type: none"> i. Candidates domiciled in Balochistan Province, nominated by the Education Department, Government of Balochistan. (02 in Electronics Engineering, 01 in Chemical Engineering, 01 in Metallurgy & Materials Engineering and 01 in Architecture). ii. Candidates domiciled in Balochistan Province, nominated by the Higher Education Commission, Islamabad. (02 in Computer Systems Engineering, 01 in Chemical Engineering, 01 in Metallurgy & Materials Engineering and 01 in Architecture). 	05
D.2	Foreign students (under Pakistan Technical Assistance Program) nominated by the Ministry of Finance and Economic Affairs (Economic Affairs Division) Government of Pakistan, Islamabad.	19

Category	Districts	Seats
(D.3)	Candidates belonging to Azad Kashmir, nominated by the Ministry of Education, Government of Pakistan, Islamabad.	02
(D.4)	Candidates belonging to Federally Administered Tribal Area, nominated by the State and Frontier Region Division, Government of Pakistan, Islamabad.	02
(D.5)	Candidates domiciled in Punjab Province, nominated by the UET Lahore through Education Department, Government of Punjab.	03
(D.6)	Candidate domiciled in Punjab Province, nominated by the UET Taxila through Education Department, Government of Punjab.	01
(D.7)	Candidates domiciled in Khyber Pakhtoon Khawah Province, nominated by NWFP UET Peshawar through the Education Department, Government of Khyber Pakhtoon Khawah.	03
(D.8)	Candidate domiciled in Khyber Pakhtoon Khawah Province, nominated by the Education Department, Government of Khyber Pakhtoon Khawah.	01
(D.9)	Candidate domiciled in Punjab Province, nominated by the Education Department, Government of Punjab.	01
(D.10)	Candidates belonging to Northern Areas nominated by the Ministry of Education, Government of Pakistan, Islamabad.	02
(D.11)	Candidates nominated by the General Head Quarters, Rawalpindi.	08
(D.12)	Candidate belonging to Federal Capital Area nominated by Ministry of Education, Government of Pakistan, Islamabad.	01
	Total seats including districts quota	1065

Table 9.6.4: Distribution of Seats for various Districts and Disciplines at Mehran University SZABCampus Khairpur Mir's

Category	Description	Number of Seats Discipline						Total
		CE	EL	ME	PG	SW	ES	
A-1	Sukkur	04	05	04	04	03	04	24
	Ghotki	05	04	05	04	04	03	25
	Khairpur	07	07	07	06	05	06	38
	S.Benazirabad	04	04	04	04	03	02	21
	NaushahroFeroze	04	04	04	04	03	02	21
A-2	Larkana	03	03	03	02	02	02	15
	Kambar/Shahdadkot	02	03	03	02	02	02	14
	Shikarpur	02	02	02	03	02	02	13
	Jacobabad	02	03	03	02	02	02	14
	Kashmore	02	02	01	01	01	02	09
A-3	Hyderabad	02	02	02	01	02	01	10
	Matari	00	00	01	01	01	00	03
	Tando Muhammad Khan	00	01	00	01	01	00	03
	Tando Allahyar	01	01	00	00	00	01	03
	Dadu	01	01	01	02	01	02	08
	Jamshoro	01	01	00	01	01	01	05
	Thatta	00	01	01	01	00	01	04
	Sujawal	01	00	00	01	00	01	03
	Badin	01	01	01	02	01	01	07
A-4	Mirpurkhas	01	01	01	01	01	01	06
	Umerkot	01	00	01	01	01	01	05
	Tharparkar	01	01	01	01	01	01	06
	Sanghar	02	01	02	02	02	01	10
A-5	Karachi	01	00	01	01	01	00	04
C	MUET SZAB Campus Employees	02	02	02	02	00	01	09
	Total:	50	50	50	50	40	40	280

Explanation of Abbreviations

CE Civil Engineering
 EL Electrical Engineering
 SW Software Engineering

ME Mechanical Engineering
 PG Petroleum & Natural Gas Engineering
 ES Electronic Engineering

Table 9.6.5: Distribution of Seats for urban and rural areas of the districts in Sindh Province, Mehran University SZAB Campus Khairpur Mir's (Category-A) and (Category-C)

Category	Districts	Number of Seats		
		Urban Areas	Rural Areas	Total Seats
A.1	Sukkur	07	17	24
	Ghotki	02	23	25
	Khairpur	07	31	38
	Shaheed Benazirabad	04	17	21
	Naushehro Feroze	01	20	21
	TOTAL	21	108	129
A.2	Larkana	05	10	15
	Shahdadkot	01	13	14
	Shikarpur	01	12	13
	Jacobabad	03	11	14
	Kashmore	02	07	19
	TOTAL	12	53	65
A.3	Hyderabad	08	02	10
	Matiani	00	03	03
	Tando Muhammad Khan	00	03	03
	Tando Allahyar	00	03	03
	Dadu	02	06	08
	Jamshoro	00	05	05
	Thatta	00	04	04
	Sujawal	00	03	03
	Badin	00	07	07
	TOTAL	10	36	46
	A.4	Mirpurkhas	02	04
Umerkot		00	05	05
Tharparkar		00	06	06
Sanghar		01	09	10
TOTAL		03	24	27
A.5	All Districts of Karachi	00	00	04
C	Real Sons/Daughters/Brothers/Sisters of Employees of MUET, Khairpur Mir's Campus	00	00	09
	GRAND TOTAL			280

9.7 Designation of Urban Areas of Sindh Province

The Urban areas designated in each district are given below.

1 Sukkur District	a) Sukkur Municipality b) Rohri Municipality
2 Ghotki District	a) Ghotki Municipality b) Mirpurmathelo Municipality
3 Khairpur District	a) Khairpur Municipality b) Gambat Municipality c) Pirjogoth Municipality
4 Shaheed Benazir Abad District	a) Nawabshah Municipality
5 NaushehroFeroze District	a) Moro Municipality
6 Larkana District	a) Larkana Municipality b) Ratodero Municipality c) Naudero Municipality
7 Kamber/Shahdadkot District	a) Shahdadkot Municipality b) Kambar Municipality
8 Jacobabad District	a) Jacobabad Municipality
9 Kashmore District	a) Kandhkot Municipality
10 Shikarpur District	a) Shikarpur Municipality
11 Hyderabad District	a) Hyderabad Municipality b) Tandojam Municipality
12 Tando Allahyar District	a) Tando Allahyar Municipality
13 Tando Muhammad Khan District	a) Tando Muhammad Khan Municipality
14 Matiari District	a) Hala Municipality
15 Dadu District	a) Dadu Municipality b) Mehar Municipality c) K.N. Shah Municipality
16 Jamshoro District	a) Kotri Municipality
17 Thatta District	a) Thatta Municipality
18 Sujawal District	No urban areas
19 Badin District	a) Badin Municipality b) Matli Municipality
20 MirpurKhas District	a) Mirpurkhas Municipality
21 Tharparkar District	No urban areas
22 Umerkot District	No urban areas
23 Sanghar District	a) Sanghar Municipality b) Shahdadpur Municipality c) Tando Adam Municipality d) Sinjhoru Municipality

9.8. Award of Discipline

The candidates are required to fill up the option form in their own hand writing carefully on the day of interview. If all priorities are not mentioned by the candidates in the Option form he/she will not be considered for admission against left over seats. If any student after seeking admission in lower choice of discipline is satisfied with the same, he/she may submit an application within three days from the date of issuance of such list that he/she is satisfied with the discipline awarded to him/her, and his/her discipline may not be changed further. If such application is not received the Admission Committee may change them as per their choice and vacancies and this change shall be binding on them.

9.9 Rectification of mistakes

The admission lists announced by the University are provisional and if any mistake is detected shall be rectified.

9.10 Admission of candidates who fail to deposit the admission fees within due date.

If any candidate fails to deposit admission fees within due date and his/her seat is allotted to another candidate in merit and at later stage if he/she reports for admission he/she may be considered for admission against the left over seats of his/her district/category as per his/her options before the closing date of admission.

9.11 Additional Marks

The candidates, who have a certificate of Hafiz-e-Quran on printed form from a registered Maderasah and clear the test of Hifz taken in the University, are also considered to have additional 20 marks to be added to the marks of HSSC.

9.12 Deduction of Marks due to gap in Education

In case of a gap or repetition of HSSC/Diploma Examinations, the merit will be determined as described below.

One percent of the aggregate marks will be deducted for each gap of one academic year after Matriculation examination from the total marks of the HSSC/Diploma examination or equivalent, for the purpose of determination of merit in each district/category. This deduction is applicable whether the HSSC/Diploma examination had been repeated or the gap had occurred owing to any other reason.

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9.13 Selection procedure against various categories

All the candidates who have applied for admission against the seats reserved under category C will be considered first for admission against the seats reserved for their respective districts under category-A. If a candidate who is selected against the district quota but is not getting the discipline of his/her choice, his/her seat and discipline of that district may be transferred to the category applied for and he/she will be given priority on merit basis in that category.

9.14 Cancellation of Admission

The admission of a student admitted before the start of the classes / closing of admission, who remains absent continuously for three weeks from the date of start of classes / date of admission of First Semester of First Year, without obtaining permission from Dean of Faculty concerned through the Chairman/Director of concerned Department/Institute shall stand cancelled automatically without issuing any notice thereof.

9.15 Closing of Admissions

The admissions for the session will be made up to the end of FOURTH week from the date of start of Classes. After this period no new admissions will be made. However, any change of discipline on merit will be made up to 07 days after the closing date of admission. The seats fallen vacant will not be filled-up.

9.16 Admission on Reciprocal Basis

There is a provision for the candidates having domicile of Sindh province getting admission in some other institutions of Pakistan as described below:

UET, Lahore	01 seat	Civil Engineering
UET, Lahore	02 seats	Chemical Engineering
UET, Taxila	01 seat	Civil Engineering
UET, Peshawar	01 seat	Civil Engineering
UET, Peshawar	01 seat	Mechanical Engineering
UET, Peshawar	01 seat	Architecture

The candidates who want to seek admission on reciprocal basis to above Engineering Universities of Punjab and KPK province have to apply separately to the Secretary Education and Literacy Department, Government of Sindh, Karachi for their selection against the seats on reciprocal basis.

Similarly, the UET Lahore, UET Taxila and NWFP UET Peshwar is authorized to nominate candidates for admission in Mehran University in the same discipline as mentioned above.

However the nominees of NWFP University of Engineering and Technology, Peshawar on reciprocal basis will be required to pay Rs. 38000/- as educational expenses in addition to admission and other normal user charges at the time of admission to Mehran University of Engineering and Technology, Jamshoro.

9.17 NOC and Study Leave Order for Candidates Already in Service

The candidates who are already in service at the time of submission of Admission Form should attach NO OBJECTION CERTIFICATE from their employers for their admission. After selection to the First Year Class, they will be required to submit study leave order and relieving order from their employers for study purpose at the university because the Bachelor's Degree Program is a regular full time and day program and no student admitted in this university is allowed to engage himself/herself in any employment during his/her studies.

9.18 Admission in any Other Institute

Being a full-time program of studies, no student of this university shall be allowed to enroll in any other full time or part time courses of studies in any other educational institution without prior permission of the authorities of the university. Violation of the above may lead to the cancellation of his/her admission.

9.19 Identity Card

The students, after getting admission at the university, will be issued university smart identity cards by the Chairman/Director of the concerned department/Institute. It is necessary for the students to keep their valid identity cards with them while attending the classes, traveling in the point buses or staying on the campus.

9.20 Change of Discipline/Technology

No student shall be allowed to change his/her discipline/technology after the specified period as mentioned in clause 9.15.

9.21 Re-admission Policy

Those students who are eligible for any semester of any year and remained absent from their classes and examinations for any reason, will be considered for re-admission in the appropriate semester where they left their studies, with the appropriate batch subject to application of other relevant rules by the Re-admission Committee, provided their absence is not more than two calendar years. However their attendance to determine their eligibility to appear in the semester examination will be considered from the date of issue of re-admission letter. Such admissions may be made within four weeks from the date of start of classes of particular session. The application for re-admission shall be submitted through the Chairman/Chairperson/Director of the concerned department/institutes to the Dean of the Faculty concerned giving the cogent reasons.

9.22 Enrolment Card

Each student is required to enroll himself/herself in the university after the finalization of the discipline in the First Semester of First Year and obtain enrolment card accordingly. In case of failure, he/she will not be allowed to appear in the examination of the First Semester of the First Year.

9.23 Fees

(i)	Fees payable at the time of admission	
	a) Admission fee (per year)	8000.00
	b) Tuition fee (per year)	13000.00
	c) University caution money deposit (refundable)	2000.00
	d) Subject society/PERN fee (once)	1000.00
	e) Games fee (per year)	500.00
	f) Developmental charges (per year)	1000.00
	g) Enrolment fee (once)	1000.00
	h) Marks verification fee (once)	500.00
	i) Transport charges (per year)	5000.00
	Total	Rs. 32000.00

ii) Semester Examination fees	Rs. 1500.00
iii) Hostel fees	
a) Admission fee (per year)	2000.00
b) Room deposit (refundable)	1000.00
c) Identity card fee (per year)	100.00
d) Room charges (per year)	5000.00
e) Medical charges (per year)	100.00
f) Sports charges (per year)	200.00
g) Form fee	100.00
h) Utility charges (per year)	1500.00
i) Transport charges (per year)	4000.00

Total: Rs. 14000.00

Note: The foreign students will be charged Rs.36,000.00 per year as room charges. The other fees will be the same as given above.

9.24 Admission of candidates domiciled in Sindh Province under Self Financing Scheme at Mehran University of Engineering & Technology, Jamshoro and Mehran University of Engineering & Technology SZAB Campus, Khairpur Mir's

In the Self Financing Scheme the Admissions will be made on the basis of district quota as per Table-9.24 (a) and (b) at Mehran University of Engineering & Technology, Jamshoro and Mehran University of Engineering & Technology SZAB Campus, Khairpur Mir's respectively. The saving seats will be filled up on overall open merit basis of the Province of Sindh. Following rules have been framed for admissions under the Self Financing Scheme. These rules are subject to revision by the competent authorities of the university at any time and without prior notice.

9.24.1 Eligibility

The eligible candidates should have:

- i. Secured at least 60% marks or B-Grade in the HSSC (Pre-Engineering) examination for all disciplines, Intermediate (General Science Group for only four disciplines viz. Computer Systems Engineering, Software Engineering, Electronic Engineering and Telecommunication Engineering) and Intermediate (Pre-Medical Group for only one discipline i-e Bio-Medical Engineering) or equivalent as recognized by the University and further explained in Section 9.2 under regular scheme.
- ii. Appeared in Pre-admission Test and secured at least 40% score.
- iii. Produced domicile of Sindh Province.

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9.24.2 Pre-admission Test

As prescribed in Section 9.4 under Regular Scheme.

9.24.3 Interviews

As prescribed in Section 9.5 under Regular Scheme.

9.24.4 Available Seats

Under this scheme the disciplines have been distributed in three categories i-e-Category-I Category-II and Category-III as below. The number of seats for each discipline is reserved on district basis and given in Table 9.24(a) and 9.24(b).

Category-I

1. Civil Engineering
2. Electrical Engineering
3. Mechanical Engineering
4. Electronic Engineering
5. Civil Engineering (at Khairpur Mir's)
6. Electrical Engineering (at Khairpur Mir's)
7. Mechanical Engineering (at Khairpur Mir's)

Category-II

1. Telecommunication Engineering
2. Petroleum & Natural Gas Engineering
3. Environmental Engineering
4. Chemical Engineering
5. Computer Systems Engineering
6. Software Engineering
7. Petroleum & Natural Gas Engineering (at Khairpur Mir's)

Category-III

1. Industrial Engineering & Management
2. Textile Engineering
3. Architecture
4. Bio-Medical Engineering

In Bio-Medical Engineering, seven seats are reserved on all Pakistan basis who are otherwise eligible for admission. In case of saving of seat, the same will be filled up on overall open merit basis of the province of Sindh.

9.24.5 Admission fee under Self Financing Scheme

Following fees are payable to the university by the candidates applying for admission under Self-Financing Scheme:

Category-I

Admission fee of Rs.800,000/- (Rupees Eight hundred thousand only) + Tax* (Total Rs.840000/-) in the form of Demand Draft prepared by any branch of Bank, in favour of 'Director Finance, Mehran University of Engineering & Technology, Jamshoro'. The draft in original be submitted along with the application form.

Category-II

Admission fee of Rs.6,50,000/- (Rupees Six hundred fifty thousand only) + Tax* (Total Rs.682500/-) in the form of Demand Draft prepared by any branch of Bank, in favour of 'Director Finance, Mehran University of Engineering & Technology, Jamshoro'. The draft in original be submitted along with the application form.

Category-III

Admission fee of Rs.550,000/- (Rupees Five hundred fifty thousand only) + Tax* (Total Rs.577500/-) in the form of Demand Draft prepared by any branch of Bank, in favour of 'Director Finance, Mehran University of Engineering & Technology, Jamshoro'. The draft in original be submitted along with the application form.

Other fees as payable under all categories of the regular scheme shall also be payable after the admission has been granted to the candidate.

*Advance Tax on payment of fee to Educational Institutions (Section 2361)

As per newly inserted Section 2361 every educational institution is required to collect advance income tax at the rate of 5% on the amount of fee paid to an educational institution. The person responsible for preparing monthly, bimonthly or quarterly fee voucher or challan shall also charge withholding tax in case the fee exceeds two hundred thousand rupees annually.

Table 9.24 (a) Distribution of Seats under Self Financing Scheme at Mehran University of Engineering and Technology, Jamshoro

District	No. of seats allocated to each district under Self Financing Scheme	CE	EL	ME	ES	TL	PG	EE	CS	SW	CH	TE	IN	AR	BM
Hyderabad	50	4	4	4	5	5	4	1	4	4	4	4	4	1	2
Jamshoro	21	2	2	2	2	2	2	1	1	1	2	1	1	1	1
Matiani	18	2	2	2	1	1	1	1	1	1	2	1	1	1	1
T.M. Khan	19	2	2	1	2	2	1	1	1	1	2	1	1	1	1
T.Allahyar	17	2	1	1	1	2	2	0	1	1	1	2	1	1	1
Thatta	20	2	2	2	3	1	1	1	1	1	2	2	1	0	1
Sujawal	19	2	2	2	1	2	2	0	1	1	2	1	1	1	1
Badin	40	4	4	4	4	4	4	1	2	2	3	3	2	1	2
Dadu	39	4	4	4	3	3	4	1	2	2	4	2	3	1	2
Umerkot	24	2	3	2	3	2	3	1	1	1	2	1	1	1	1
Mirpurkhas	33	3	2	3	2	2	3	1	3	3	3	2	3	1	2
Tharparkar	33	2	3	2	3	3	2	1	3	3	3	2	3	1	2
Sanghar	50	4	4	4	4	5	4	1	4	4	5	4	4	1	2
Sukkur	17	1	1	1	2	1	1	0	2	2	1	1	2	1	1
Larkana	19	1	2	2	1	2	2	1	1	1	2	1	1	1	1
S.B. Abad	20	2	2	2	2	2	1	1	1	1	2	1	1	1	1
N. Feroze	20	2	2	2	2	2	2	1	1	1	1	1	1	1	1
Kambar/Shahdadkot	17	2	1	1	1	1	2	0	2	1	1	2	1	1	1
Ghotki	18	1	1	2	1	1	2	0	1	2	2	1	2	1	1
Khairpur	27	2	3	3	2	2	2	1	2	2	2	2	2	1	1
Jacobabad	17	1	1	2	1	1	2	0	2	1	1	2	1	1	1
Kashmore	11	1	1	0	1	1	1	0	0	1	1	1	1	1	1
Shikarpur	16	1	1	1	2	2	1	0	2	1	1	1	1	1	1
Karachi	13	1	0	1	1	1	1	0	1	2	1	1	1	1	1
Total	578	50	50	50	50	50	50	15	40	40	50	40	40	23	30

Table 9.24(b) Distribution of Seats for various Districts under Self Financing Scheme at Mehran University of Engineering & Technology SZAB Campus Khairpur Mir's.

Category	Districts	Number of Seats in each Discipline				Total Seats
		CE	EL	ME	PG	
A.1	Sukkur	01	01	01	01	04
	Ghotki	01	01	01	01	04
	Khairpur	02	02	01	01	06
	S. Benazirabad	01	01	01	01	04
	NaushahroFeroze	01	01	01	00	03
A.2	Larkana	01	01	01	00	03
	Kambar/Shahdadt	01	01	00	00	02
	Shikarpur	01	01	01	00	03
	Jacobabad	01	01	00	01	03
	Kashmore	01	01	01	00	03
A.3	Hyderabad	01	01	01	00	03
	Matari	00	01	00	00	01
	Tando Muhammad Khan	00	01	00	00	01
	Tando Allahyar	01	00	00	00	01
	Dadu	01	01	00	01	03
	Jamshoro	00	01	00	00	01
	Thatta	01	00	01	00	02
	Sujawal	01	00	00	00	01
A.4	Badin	02	01	00	00	03
	Mirpurkhas	00	01	00	00	01
	Umerkot	01	00	00	00	01
	Tharparkar	00	01	01	00	02
A.5	Sanghar	01	01	01	01	04
	Karachi	00	00	01	00	01
	TOTAL	20	20	13	07	60

9.25 Admissions under Special Scheme

For this scheme one seat in each discipline as mentioned below has been reserved for each district. In case of saving of seats the same will be filled up on overall open merit basis of the province of Sindh. (Foreign candidates may also be considered for admission against this scheme).

Disciplines

1. Metallurgy & Materials Engineering
2. Mining Engineering
3. City & Regional Planning

The basic requirement for admission will be the same as approved for admission under regular scheme. All candidates applying under this scheme must have secured at least 40% score in the pre-admission test conducted by the university. Further local candidates will be required to pay admission fee Rs. 300,000/- (Rupees three hundred thousand only) + Tax (Total Rs.315000/-) in the form of Demand Draft prepared by any branch of Bank, in favour of 'Director Finance, Mehran University of Engineering & Technology, Jamshoro.' The draft in original be submitted alongwith the admission form.

Foreign candidates will be required to pay US \$ 5000 for admission at the time of seeking admission under the scheme in addition to other normal fees etc., payable by the students under regular scheme.

9.26 Admissions under University Support Program (USP)

For this scheme 48 seats each in Civil, Electrical and Mechanical Engineering discipline have been reserved (2 seats for each district) for the candidates having the domicile of Sindh Province. The basic requirement for admission will be the same as approved for admission under regular scheme. All candidates applying under this scheme must have secured at least 40% score in the pre-admission test conducted by the university. For this scheme the candidates will be required to pay Rs. 12,000,00/- (Rupees one Million two hundred thousand only once) + Tax (Total Rs. 12,600,00/-) in the form of Demand Draft prepared by any branch of Bank, in favour of Director Finance, Mehran University of Engineering & Technology, Jamshoro for admission under this scheme in addition to other normal fees etc., payable by the students under regular scheme. The draft in original be submitted alongwith the admission form.

Refund of Self Financing Scheme, Special Scheme, and University Support Program admission fee will only be allowed through special cross cheque mentioning the name of refundee with bank account, the

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name of bank and bank branch. Therefore in case of refund of the fee candidates are required to write an application and provide the name of the parent/guardian or self along with their bank account number with branch name to whom amount to be refunded.

9.27 Admission of Foreign candidates under Self Financing Scheme at Mehran University of Engineering & Technology, Jamshoro.

Seats in 14 disciplines at Jamshoro as described in Section 9.24.4 (maximum 5 seats in each discipline) are reserved for foreign candidates under this scheme who are otherwise eligible for admission. The foreign candidates must apply for admission through their Embassies via Higher Education Commission, Islamabad.

The foreigner students will be required to pay admission fee of US \$ 12000 (once only) along with the admission form. They will also be charged the usual fees as payable by other students.

9.28 Admission of Candidates from Azad Jammu & Kashmir under Self Financing

Ten seats in the following discipline are reserved for the candidates domiciled in Azad Jammu and Kashmir under this scheme. They have to apply directly to the University in response to the advertisement. All the other conditions concerning eligibility and fees will be same as described in sections 9.2 and 9.24.5 also apply:

Civil Engineering	2 seats
Electrical Engineering	1 seat
Mechanical Engineering	1 seat
Telecommunication Engineering	1 seat
Computer System Engineering	1 seat
Software Engineering	1 seat
Environmental Engineering	1 seat
Architecture	1 seat
City & Regional Planning	1 seat
Total:	10 seats

9.29 Other Information

- Admission fee is payable only once in the beginning.
- Candidates once admitted under these schemes shall not be allowed to change the discipline except the seats in the desired disciplines are available.
- University follows the National level Fee Refund Policy at Higher Institutions of Pakistan which is as under :-

% of Tuition fee	Time line for semester
Full 100% fee refund	Upto 7th day of convene of classes
Half 50% fee refund	Upto 15 days of convene of classes
No Refund 0%	From 16th day of convene of classes

- The candidates applying under these schemes will also be considered for admission under regular scheme if they are in merit against their districts.

9.30 Migration/Transfer

- Migration is only allowed to and from a public sector University and foreign university recognized by Higher Education Commission (HEC).

- Migration/Transfer is not allowed to the students in the first and final year.
- Migration/Transfer is not allowed to the students admitted on reciprocal basis.
- Migration/Transfer is allowed only in the cases of extreme hardship for the students or if it is considered in the best interest of the university by the competent authority. The decision of the University is final and binding in this regard.
- The students failing in previous Semesters shall not be eligible for admission on migration/transfer basis.
- The migration/Transfer of the local students would be allowed on the payment of Rs.800, 000/= (Rupees eight hundred thousand only) to the Mehran University; while foreigner students would be required to pay Rs. 12, 00,000/= (Rupees twelve hundred thousand only) as migration fee. The nominees will be required to submit the No Objection Certificate (NOC) of the nominating agency.
- Admission on migration basis will be made up to fourth week of the start of the classes of particular session.



REGULATIONS FOR SEMESTER SYSTEM

SEMESTER GRADES

Teachers	A-
Student Government	B+
Sports	B-
Life	C

10. REGULATIONS FOR SEMESTER SYSTEM

Regulations regarding the Courses of Studies for the Bachelors Degree Programs of the Mehran University of Engineering and Technology, under Section 47(1)(n) of the Act 1977.

10.1 Short Title:- These Regulations may be called the Mehran University of Engineering and Technology Bachelor of Degree Courses Regulations 2012 repealing such regulations framed by the University authorities (if any).

10.2 These Regulations shall be subject to the Mehran University of Engineering and Technology General scheme of Studies for the Bachelor's degree courses Statutes 2012.

10.3 Commencement:- These Regulations shall be deemed to have come into force with effect from Jan. 1st, 2013 (applicable to 13 Batch & onwards).

10.4 Definitions:- In these Regulations unless otherwise expressly stated.

- i. "University" means the Mehran University of Engineering and Technology, Jamshoro.
- ii. "Academic Year" means the Academic Year of the University.
- iii. "Semester" means a Period of 22 weeks out of an academic year for teaching and evaluation and / or guidance of the students of the University.
- iv. "Vice-Chancellor", "Pro Vice Chancellor", "Dean", "Director", "Chairman", "Teacher" and "Controller of Examinations" means respectively the vice- Chancellor, the Pro Vice Chancellor, the Dean of Faculty, the Director of Institute, the Chairman of Teaching Department, the Teacher and the Controller of Examinations of the University.
- v. "Internal Examiner" means the teacher/person appointed by the competent authority, who has been teaching the subject to the regular class/section during the academic year for which the examination is being conducted.

10.5 The Courses of study:

The courses of studies for the degree of Bachelor of Engineering (B.E), Bachelor of City & Regional Planning (B.CRP) and Bachelor of Architecture (B.Arch) shall be as given in the Regulations, which follow, provided

that these Regulations shall be subject to change as approved by the Academic Council of the University from time to time.

10.6 Duration of Semesters & Years:

(a) First year, Second Year, Third Year and Fourth Year for the degree of the Bachelor of Engineering (B.E) and Bachelor of City and Regional Planning (B.CRP) will each be of one year duration (Total 4 years) each comprising of two semesters. Total Credit hours for all 4 years shall be 130-136.

(b) First Year, Second Year, Third Year, Fourth Year and Fifth Year for the degree of Bachelor of Architecture (B.Arch) will each be of one year duration (Total 5 years) & each comprising of two Semesters. Total Credit Hours for all 5 years shall be 160-170.

(c) There shall be two semesters in an academic year. The duration of teaching time in each semester shall be 16 weeks. The semester starting with the commencement of the academic year will be called the 'First Semester' and the following semester will be called the 'Second Semester'.

10.7 Marks:

Each degree program shall carry a number of approved courses and each course shall be assigned a number of Credit Hours. The Credit Hours per semester for each discipline shall be 15-18. The details of the course, marks / grades assigned and the condition for passing examinations shall be as prescribed by the Mehran University of Engineering and Technology Bachelors Degree Regulations.

10.8 Departmental Committee:

Each Department/ Institute will have a Departmental Committee consisting of three senior most teachers of the Department / Institute including Chairman/ Director to assess the progress of the students during the semester and the results of all the examinations including the final semester examination. In case of any discrepancy in the results, during scanning process, the concerned committee will seek approval through the Dean and the Pro Vice Chancellor from the Vice Chancellor for rechecking the Scripts by a Subject expert (other than the Subject teacher). The final recommendations of the Departmental Committee concerning the results will be submitted through the concerned Dean and Pro Vice Chancellor to the Vice Chancellor for consideration and approval.

10.9 Yearly academic program:

i. Teaching duration of 1st semester	16 Weeks
ii. Conduct of Mid Semester Exam	01 Week
iii. Preparation and Conduct of final 1st Semester Exam	05 Weeks
iv. Summer Break	06 Weeks
v. Teaching duration of 2nd Semester	16 Weeks
vi. Conduct of Mid Semester Exam	01 Week
vii. Preparation & Conduct of Final 2nd Semester Exam	05 Weeks
viii. Winter Break	02 Weeks
TOTAL	52 WEEKS

Note:

- Minimum number of contact hours for a theory subject of 3 CHs per semester is 42.
- Minimum number of contact hours for a practical of 1 CH per semester is 42.

10.10 The minimum requirement for each semester course:

- Assignments.
- Tests (minimum two).
- Mid Semester Examination
- Final Semester Examination.

The Schedule of Tests, Mid Semester & Final Semester Examination shall be as under:

S#	Activity	Period
1.	Mid Semester Examination	After 8-weeks
2.	Final Semester Examination	After 16-weeks

10.11 Distribution of Marks:

The distribution of marks on each theory and practical course in a Semester will be as follows:-

THEORY			
		Theory of Maximum 100 marks	Theory of Maximum 50 marks
i.	Attendance	10	05
ii.	Test(s)	05	03
iii.	Assignments	05	02
iv.	Mid Semester Exam:	20	10
v.	Final Semester Exam:	60	30
TOTAL		100 marks	50 marks

PRACTICAL			
		Theory of Maximum 50 marks	Theory of Maximum 100 marks
i.	Attendance	05	10
ii.	Lab Evaluation Work	15	30
iii.	Semester Lab Exam:	30	60
(a)	Objective type test	15	30
(b)	Conduct of Pr/Viva Voce	15	30
Total		50 marks	100 marks

Note: For the courses carrying other than 100 & 50 marks the distribution of marks will be accordingly.

In case of the Project / Thesis / Design the distribution of marks shall be as follows:

- | | |
|-----------------------------------|-----------|
| (i) Sessional work. | 25% marks |
| (ii) Evaluation of Project report | 25% marks |
| (iii) Viva-Voce Examination | 50% marks |

10.12 Grade Equivalent

GRADE	GRADE POINT	MARKS			
		THEORY		THEORY	
		MAX. MARKS 100	MAX. MARKS 50	MAX. MARKS 100	MAX. MARKS 50
A+	4.0	85 & above	42 & above	85 & above	42 & above
A	3.75	80 to 84	40 to 41	80 to 84	40 to 41
B+	3.5	75 to 79	37 to 39	75 to 79	37 to 39
B	3.0	70 to 74	35 to 36	70 to 74	35 to 36
C+	2.5	65 to 69	32 to 34	65 to 69	32 to 34
C	2.0	60 to 64	30 to 31	60 to 64	30 to 31
D+	1.5	55 to 59	27 to 29	55 to 59	27 to 29
D	1.0	50 to 54	25 to 26	50 to 54	25 to 26
F	0.0	0 to 49 (Fail)	0 to 24 (Fail)	0 to 49 (Fail)	0 to 24 (Fail)

- | Fraction is to be considered as a whole number.
- | Subjects carrying more than 100 marks in Theory/Practical will be awarded grades accordingly.
- | The results will be prepared on the basis of Grade point Average (G.P.A.).

10.13 Attendance Requirement

- (i) A student should have at least 75% attendance to appear in the Final Semester Examination.
- (ii) In genuine cases, maximum 10% condonation in attendance shall be the discretionary powers of the Pro Vice-Chancellor on the basis of an application to be scrutinized by Director/ Chairman concerned and routed through respective Dean concerned.
- (iii) The eligibility attendance of Theory/ Practical for late admitted students to First Semester of First Year only shall be calculated from the date of admission.

10.14 Distribution of Attendance Marks

Distributions of attendance marks will be as given in the following tables:

A. For Theory Head of 3CHs i.e. 100 Marks		
S# No.	Lecture Hours attended	Marks to be awarded
1	41 to 42	10
2	37 to 40	09
3	33 to 36	08
4	31 to 32	07
5	Below 31	00

B. For Theory Head of 2CHs i.e. 50 Marks		
S# No.	Lecture Hours attended	Marks to be awarded
1	27 to 28	05
2	24 to 26	04
3	21 to 23	03
4	Below 21	00

C. For Practical Head of 2CHs i.e. 100 Marks		
S# No.	Lecture Hours attended	Marks to be awarded
1	95% to 100%	10
2	86% to 94%	09
3	81% to 85%	08
4	75% to 80%	07
5	Below 75%	00

D. For Practical Head of 1CHs i.e. 50 Marks

S# No.	Lecture Hours attended	Marks to be awarded
1	90% to 100%	05
2	80% to 89%	04
3	75% to 79%	03
4	Below 75%	00

The Lab's carrying marks other than 50 or 100 the distribution of attendance marks will be accordingly.

10.15 Conduct of Sessional Work/Mid-Semester and Final Semester Examinations

(i) 10/5 marks of assignment for subjects carrying 100/50 marks shall be awarded by the teacher concerned after conducting 3/2 class tests (MCQs type) and 2/1 best of 3/2 class tests shall be counted toward award of 10/5 marks. The entire record of evaluated class tests shall be submitted by the concerned subject teacher to Examinations Department at the time of submission of final results.

(ii) At the end of each semester, the marks of attendance, sessional work, and lab work secured by the student in Theory and Practical of the concerned subject shall be announced by the concerned subject teacher by displaying on the Notice Board.

(iii) Mid Semester Examination will be conducted by the Examination Department in collaboration with the concerned Department/ Institute.

(iv) The mid-semester examination will be conducted only for theoretical subjects.

(v) The time duration for mid semester examination will be 1 hour for 3 CHs course and each question paper will contain 3 questions with a choice to attempt any two, whereas the time duration for 2 CHs course examination will be 45 minutes and the question paper will contain 3 questions with a choice to attempt any two.

(vi) The marks of the mid semester examination question paper of 3 CHs will be 20, and for the 2 CHs course will be 10.

(vii) No MCQ's, fill-in the blanks or objective type questions will be given in mid semester examination. The questions shall be descriptive.

(viii) The scripts of all assignments will be returned and those of the tests and mid-semester examination will be shown to the students after evaluation. Each blank page / gaps in the scripts will be stamped/ lines drawn, by the teacher concerned.

(ix) The marks of each test and mid-semester examination will be displayed and solutions will be discussed in the class room immediately after evaluation. If any student is not satisfied with the evaluation, he/she may convey this to the Chairman of the concerned department within 7 days of the result thus displayed and the matter will then be looked into by the Departmental Committee, whose decision will be final. Any such objections after the expiry of 7 days will not be accepted. A copy of the Marks of the tests and mid-semester will be deposited by the teacher in the department office immediately after the announcement of the results.

(x) Final Semester Examination will be of 3-hours duration for 3 CHs course and each question paper will contain 5 questions without any choice. Similarly, Final Semester Examination will be of 2-hours duration for 2 CHs course and each question paper will contain 3 questions without any choice. Final semester examination will be conducted from the whole course.

(xi) The teachers will prepare 3 copies of the result of each course separately at the end of each semester (attendance, test, mid semester examination. Assignments and final semester examination) on the prescribed proforma and shall forward two copies to the Controller of Examinations.

(xii) The cumulative result (including all the marks of attendance, assignments, tests, mid-semester examination and final semester examination) of each semester of a year will be announced by the Controller of Examinations.

10.16 Setting of Question Paper/Assessment of Scripts and Conduct of Practical Examination

(a) Setting of Question Paper

Theory:

(i) Question Papers for Semester Examination shall be drawn by the teachers of concerned subjects as Internal Examiners, for all departments. In case of more than one subject teacher of a particular subject in the

same department with assigned sections, the respective teacher will draw his own paper.

(ii) There will be no external moderation of the Question Paper by the External examiner.

(iii) Final Semester Examination will be of 3-hours duration for 3 CHs course and each question paper will contain 5 questions without any choice. Similarly, Final Semester Examination will be of 2-hours duration for 2 CHs course and each question paper will contain 3 questions without any choice.

Practical:

(i) The objective type Question Paper of Practical Examination shall be set by the Internal Examiner.

(ii) The following applicable guidelines parameters shall be included by the Examiners for setting of objective type Question Papers. Fill in the Blanks, True or False, Multiple Choice Questions (MCQs), Definition of Technical Terms, Drawing Skill Oriented Questions and Interpretation of Diagrams.

(iii) External examination system will be only for Practical Viva-voce and Project/Thesis/Design Examination.

(b) Assessment of Scripts

The scripts of the Theory Examination will be assessed by the respective Internal Examiner. The Internal Examiner will send the award lists (in triplicate) to the Controller of Examinations.

(c) Conduct of Practical Examination

(i) The Practical and Viva-Voce Examination shall be conducted jointly by the Internal & External Examiners approved by the Vice-Chancellor. The signature sheets of examinees for conduct of Objective Type Test and Viva-Voce/Jury shall be maintained separately and the same shall be submitted to the Examinations Department for office record by the Examiners. The award lists signed by the both examiners shall be submitted in triplicate under sealed cover to the Controller of Examinations.

(ii) The Internal Examiner as well as External Examiner shall both submit separate report under sealed confidential cover to the Controller of Examinations of the University regarding the standard of the examination taken by them.

(iii) In case External Examiner No.1 is not available on the scheduled date(s) of the examination the Examiner No.2 shall be contacted and called for examination.

(iv) The Chairman/ Director of the Department/Institute or his/her nominee having expertise with related subject shall act as an alternate if External Examiner No. 1 and 2 are not available on the scheduled date(s), however the same alternate assignments be made in case the concerned subject Teacher /Internal Examiner is not available in exceptional case due to some serious problem.

10.17 Scanning of Results

(i) A committee comprising of the Dean of the concerned Faculty, the Chairman/Director, Co-Director of the concerned Department/Institute and the concerned teacher of the subject, who if necessary, for reasons of checking the quality and consistency of assessment of scripts, would at random re-assess atleast 15% of the scripts and in case gross discrepancy is detected, the Committee shall be empowered to take appropriate action with approval of the Vice-Chancellor.

(ii) Prior to sending ledgers of the results of Regular/Supplementary Examination of B.E/B.CRP/B.Arch. to the Vice-Chancellor for his signature, the overall tabulated and checked ledgers shall be pursued and scanned by the Dean of concerned Faculty and the Chairman/Director, Co-Director of concerned Department/Institute .

10.18 Appearance in the Semester Examination

The semester examination will be open to the students who full-fills the following conditions:

(i) During the semester immediately preceding the examination, he/she has been on the roll list of the concerned Department/Institute of the concerned Faculty.

(ii) He/she has submitted his/her Examination Form duly filled-in completely along with the prescribed fee to the Controller of Examinations within the due date announced by the University.

(iii) He/she has produced the following certificates duly signed by the Director, Co-Director/Chairman of the Institute/Department concerned.

(a) Good character certificate

(b) Photostat copy of Enrolment Card

(c) Attendance Certificate to the effect that the student has achieved minimum prescribed 75% attendance

(d) He/she is not debarred from taking the examination

10.19 Passing Examination

(i) A candidate having passed all the Heads of 1st and 2nd semesters of First to Final Year B.E/B.CRP/B.Arch. with minimum 50% in Theory and 50% in practical shall be declared "PASS" or otherwise. The pass percentage for Project/Thesis and Research & Development Project in the Final Year shall be 50% (A Theory or Practical would be treated as separate heads)

(ii) A candidate having passed all the Heads of Both semesters from 1st to Final Year B.E/B.CRP/B.Arch. with minimum 50% aggregate marks shall be declared "PASS". If any student is not able to get 50% aggregate marks even after having passed all the heads, he/she shall be promoted but must improve the Heads of his/her choice to secure atleast 50% aggregate marks.

(iii) A student who has secured minimum CGPA 2.00 in all the Semesters of 4 years in case of Engineering/ City & Regional Planning and 5 years in case of Architecture and has passed in all the subjects will be eligible for the award of degree of Bachelor of the Engineering / City & Regional Planning/ Architecture

(iv) A student failing in any or all Heads of a semester examination shall be declared to have failed in the examination. He/she shall be allowed to re-appear in the failing Head(s) in the next examination, if otherwise eligible as per rules.

10.20 Promotion Rules

(i) A student will be promoted to the 2nd Semester of the first year provided he/she has completed minimum attendance requirement and filled up examination form and appeared in at least one of the Heads of the Final Semester examination (First Semester)

(A Theory or Practical would be treated as separate Heads).

(ii) A student will be promoted to the 1st Semester of the 2nd year (3rd Semester) provided he / she has obtained C-Grade or higher in atleast 50% Heads (including minimum of 02 theory papers) of 1st Semester of First year in Regular Examination and has completed minimum attendance requirement of the 2nd Semester of the 1st year and has filled up the examination form and appeared in atleast one of the Heads of the Examinations (Second Semester).

Benefits of the fraction will be given to the student.

(iii) A student will be promoted to the 2nd Semester of the 2nd year (4th Semester) provided he/she has completed minimum attendance requirement of the 3rd Semester, filled up the examination form and appeared in atleast one head of the final Semester examination (Third Semester).

(iv) A student will be promoted to the 1st Semester of the 3rd year (5th Semester) provided he/she has obtained C-Grade or higher in atleast 50% Heads (including minimum of 05 theory papers) of 1st year prior to start of classes of 5th Semester and has completed minimum attendance requirement of the 4th Semester, and has filled up the examination form and appeared in atleast one of the Heads of the Examinations (Fourth Semester).

Benefits of the fraction will be given to the student.

(v) A student will be promoted to the 2nd Semester of the 3rd year (6th Semester) provided he/she has completed minimum attendance requirement, filled up the examination form and appeared in atleast one of the Heads of the final Semester examination (Fifth Semester)

(vi) A student will be promoted to the 1st semester of the 4th year (7th Semester) provided he/she has cleared all Heads of First Year secured minimum C.G.P.A of 2.00, obtained C-Grade or higher in atleast 50% Heads of Second Year (including 05 theory papers) prior to start of classes of 7th Semester, and has completed minimum attendance requirement of the 6th Semester and has filled up the examination form and appeared in atleast one of the Heads of the Examinations (Sixth Semester).

(vii) A student will be promoted to the 2nd Semester of the 4th year (8th Semester) provided he/she has completed minimum attendance requirement, filled up the examination form and appeared in atleast one of the Heads of the final Semester examination (Seventh Semester).

(viii) In case of Bachelor of Architecture a student will be promoted to the 1st Semester of the 5th year (9th Semester) provided he/she has cleared all Heads of First Year and Second Year secured minimum C.G.P.A of 2.00, obtained C-Grade or higher in atleast 50% of Third Year (including 05 theory Papers) prior to start of classes of 9th Semester, and has completed minimum attendance requirement of the 8th Semester and has filled up the examination form and appeared in atleast one of the Heads of the Examinations (Eighth Semester). Benefits of the fraction will be given to the student.

10.21 Award of Degree

A student shall be awarded degree of Bachelor of Engineering (B.E) or Bachelor of City & Regional Planning (B.CRP) or Bachelor of Architecture (B.Arch.), only after he/she has passed the examination and cleared all the Heads of all the Semesters within the maximum period of 07 (seven) Calendar years for B.E and B.CRP and (08) eight Calendar years for B.Arch.

10.22 Comprehensive Viva-Voce/Jury Examination

The comprehensive Viva-Voce examination of the project/thesis work will be held at the completion or the last semester of the degree program. Success in the Viva-Voce will be compulsory for the degree. The Chairman or the Department, the concerned teacher of the project together with at least one external examiner will constitute the viva-voce Committee. Student who has failed in the Viva-Voce will be given the benefit of appearing again in the subsequent Viva-Voce.

10.23 Time for Checking Scripts

The time limit for checking the answer scripts shall be 20 scripts per day plus one week, unless specified.

10.24 Final Award

The final award once received by the office of the Controller of Examinations shall not be liable to a subsequent change, except with the permission of the Vice-Chancellor.

10.25 Retotalling of Marks

Retotalling of the marks shall be done on payment of prescribed fee per paper for a candidate who submits an application to the Controller of Examinations, through the Chairman, or Director/Co-Director of the concerned Department/Institute within two weeks from the date of announcement of result.

10.26 Medium of Instructions

Instructions in all courses and laboratories are carried out in English Language.

10.27 Modification of Regulations

These Regulations are subject to modification by the competent University authorities as may be felt appropriate in future.

10.28 Method of Working out G.P

1. Credit Hours (C.H)

One Credit hour for a particular course is generally to be considered as one hour of teaching theory per week and for practical 1 C.H be considered as 3 contact hours.

2. Quality Point (Q.P.)

For computation of the (G.P.A.) the quality point (Q.P) is first determine by the multiplying the value of the grade earned by the students with the Credit Hours of the that course, e.g. if a student obtain "A+" grade for a three credit hours course then this quality point will be calculated as follows:

$$(Q.P.) = 4 \times 3 = 12$$

3. Grade Point Average (G.P.A).

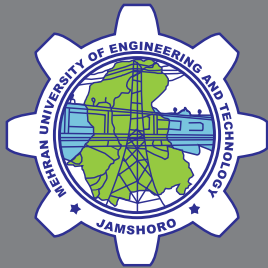
Grade point Average is an expression for the average performance of a student in the course he/she has offered during a particular semester. This is calculated by adding the quality points of all the courses taken, divided by the total number of Credit hours offered:-

$$(G.P.A) = \frac{\text{Sum of Quality Points.}}{\text{Sum of the Credit Hours}}$$

4. Cumulative Grade Point Average (C.G.P.A)

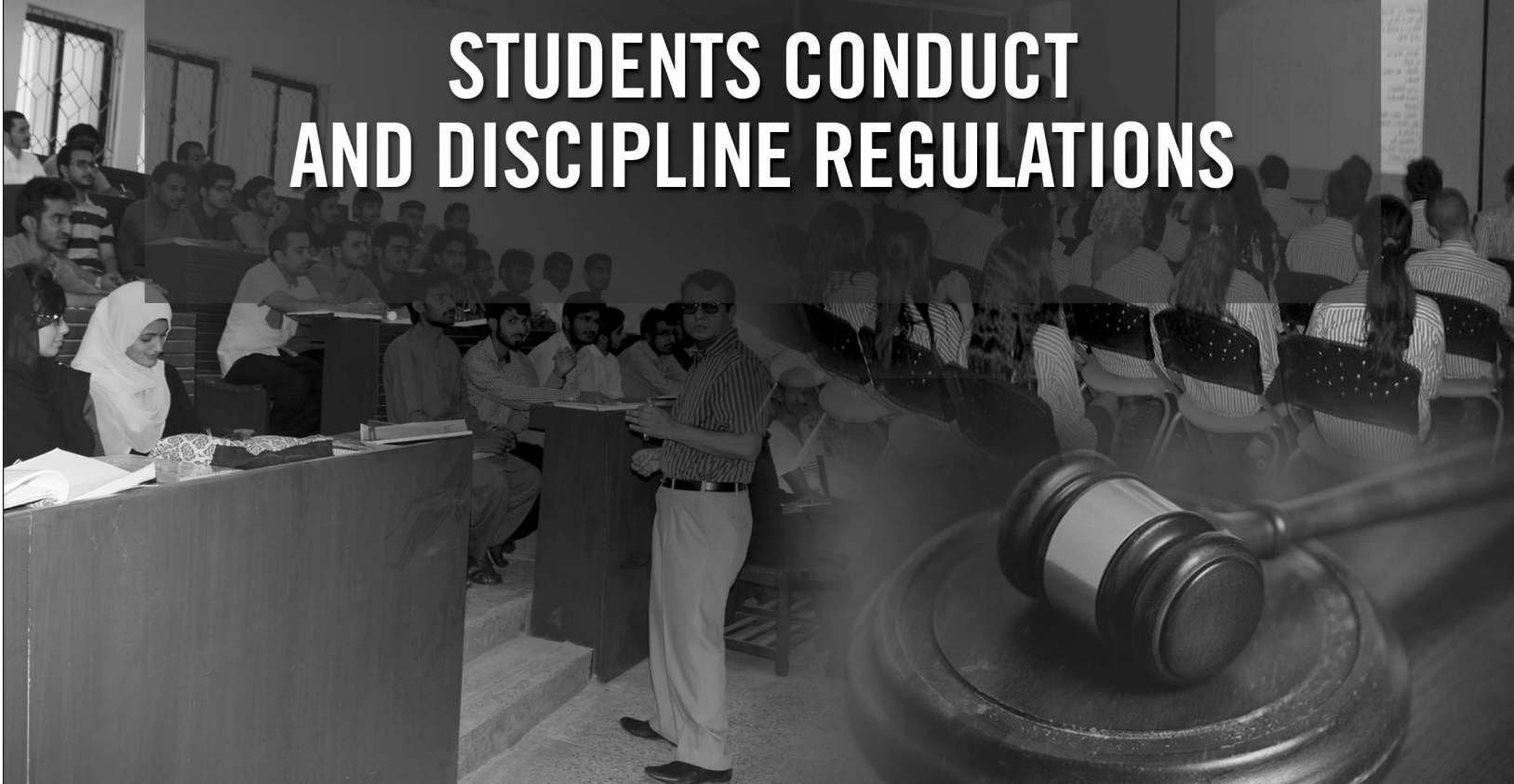
The Cumulative Grade Point Average (C.G.P.A) is the expression describing the performance of a student in all semester is determined by the following way:

$$(C.G.P.A) = \frac{\text{Sum of Quality Points for all the courses appeared}}{\text{Sum of the Credit Hours for all the courses appeared}}$$



DISCIPLINE

**STUDENTS CONDUCT
AND DISCIPLINE REGULATIONS**



11. STUDENTS CONDUCT AND DISCIPLINE REGULATIONS

The Regulations regarding the conduct and discipline of students of Mehran University of Engineering and Technology, under section 47(1) of the Act, 1977, as amended on 17.9.1986 and further amended on 06.07.2006 are given below:

11.1 Short Title

These Regulations may be called the Mehran University of Engineering & Technology Students Conduct and Discipline Regulations, 1978 as amended upto 6.7.2006.

11.2 Commencement and Applications

These Regulations shall come into force with immediate effect, and shall apply to all the students of the University, Centre of Excellence and the Colleges/Institutes constituted/affiliated to the University.

11.3 Definitions

I. "University" means the Mehran University of Engineering and Technology at Jamshoro.

II. "Campus" means the Mehran University Engineering and Technology, Khairpur Mir's Campus, and all areas and building structures including Academic Block/teaching departments, hostels or halls of residence of students, Administration Block, sports grounds-gymnasium and any staff residential area, recreational areas for students and staff and any other such areas, buildings or facilities created within the specified boundary of the University and likewise areas of affiliated/constituted colleges/Institutes/ Center of Excellence.

III. "Syndicate" means the Syndicate of the University.

IV. "Vice-Chancellor" means the Vice-Chancellor of the University.

V. "Discipline Committee" means the Discipline Committee of the University constituted under the First Statutes appended to Mehran University Act, 1977, and/or constituted separately for the constituent or affiliated colleges/Institutes/Center of Excellence by the Governing Body or management of that college/ Institute/Center of Excellence with the approval of the Vice-Chancellor, Mehran University of Engineering & Technology.

VI. "Dean", "Director of an Institute/Chairman of the Department", "Teacher Incharge of the Class", "Workshop Superintendent", "Provost", "Deputy Provost", "Warden", "Director Sports", "Games Incharge", "Officer Incharge of Students Affairs", and "Principal"/"Director" of the Constituted/Affiliated College/Institute/Center of Excellence. respectively, means the Dean, Director of Teaching Institute/ Chairman of a Teaching Department, Teacher Incharge of the class, Workshop Superintendent, Provost, Deputy Provost, Warden, Director Sports, Games Incharge, Director Students' Affairs, Students Welfare Officer, Students Advisor appointed as such by the competent authority and mutatis-mutandis officers/ teachers in the affiliated college/Institute/Center of excellence.

11.4 Every student shall observe the following:

- a) He/She must be faithful in his/her religious duties and respect the convictions of other in matters of religion and customs.
- b) He/She must be loyal to his/her country and refrain from doing anything which might lower its honour and prestige.
- c) He/She shall be truthful and honest in his/her dealings with all people.
- d) He/She must respect the elders and be polite to all specially to the women, the children, the old people, the weak and the helpless.
- e) He/She must respect his/her teachers and others in authority in the University/College.
- f) He/She must keep his/her mind clean and be clean in speech, sports and habits.
- g) He/She shall help his/her fellow beings specially those in distress.
- h) He/She must devote himself/herself faithfully to his/her studies and obey and follow the rules, instructions, and guide lines issued by the University authorities from time to time.
- i) He/She must observe thrift and protect property.

11.5 No Student Shall:

- a) Smoke in his/her class room, laboratory, workshop, library, examination hall or convocation hall and during any academic functions.
- b) Consume alcoholic liquor or other intoxicating drugs within the University/College or during the instructional, sports or cultural tours or survey camps or enter any such place or attend any such tour or camp while under the influence of such intoxicants.
- c) Organize or take part in any function within the University/College, organize any club or society of students without permission of the University authorities.
- d) Indulge into activities against the Islamic and Pakistan Ideology or national solidarity.
- e) Indulge into activities promoting, prompting or involving violence or hatred or contempt.
- f) Affiliate himself/herself with any political party or group and organize or take part in holding political gatherings and invite any politician, expelled or rusticated or debarred students, and anti social elements in the University/College.
- g) Use pressure tactics or political or personal influence in seeking academic concessions or financial benefits or in other matters concerning academic and administrative functions of the University authorities.
- h) Copy or help others in copying in examination, or cause by any means any disturbance in examinations including harassment of any teacher or other staff member or staging of walkout/boycott by himself/herself or by forcing others to do so or appear in examination in place of a bonafide eligible candidate or manage an outsider for impersonation or take unauthorizedly the whole or part of answer book/script out of an examination premises or tear scripts or any part thereof or indulge in substitution of Answer Books or influence any employee to indulge in any malpractices.
- i) Bring, keep or use any kind of weapon or fire arms within the University/College.
- j) Use or occupy fully or partially any room or any building of the University/College un-authorized.
- k) Organize or take part in procession or meeting within the University/College, prejudicial to the peaceful atmosphere of the University.
- l) Stage, incite, or participate in or abet any walk-out, strike, or any other form of agitation against the University/College or its teachers or officers.
- m) Collect any money or receive donations or pecuniary assistance for or on behalf of the University or any organization except with the written permission of the Vice-Chancellor or any other person authorized by him in this regard.
- n) Bring, keep, or use mobile phone with built-in camera and digital dictionary within the Academic and Examination buildings of the University/College.
- o) Snatch mobile phones, use mobile phone during examination/class/practical or in the Library.
- p) Tease the girl/boy students; demonstrate indecent or immoral gestures/attitude towards girl/boy students on the University/College.
- q) Abuse/violate IT policies framed or to be framed from time to time.
- r) The teachers and officers of the University/College or committees formed under them for the purpose and others concerned with the students in the University/College are responsible for the maintenance of discipline and order among the students, while under their charge, and for dealing with any disorderly behavior promptly in the manner prescribed by these regulations.

11.7 The Discipline Committee shall deal with serious cases of indiscipline requiring such actions as prescribed by Regulation 10.

11.8 A teacher or an officer in whose presence or in relation to whom an act of indiscipline is committed or who obtains knowledge of such an act on report or otherwise, shall deal with the case himself/herself as he/she may be competent as provided under the Regulation 10 below, and in other case, he/she shall inform and recommend the case to the higher authorities/bodies for necessary action as prescribed.

11.9 (i) Any one or more of the penalties mentioned in Regulation 10 may be impose on a student who is guilty of one or more of the following acts:

- (a) commits breach of any of the clauses specified in Regulations 4 or 5 above; or
- (b) disobeys the lawful order of a teacher or other person in authority in the University; or
- (c) habitually neglects his/her work or habitually absents himself/herself from the class without reasonable cause; or
- (d) willfully damages University/College property or the property of a fellow student or any teacher or any employee of the University/College; or
- (e) does not pay the fees, fines or other dues livable under the University Regulations; or
- (f) does not comply with the Regulations relating to the residence in the hostels or halls of residences.; or

(g) uses indecent language, wears immodest dress, makes indecent remarks or gestures or behaves in a disorderly manner; or

(h) commits any criminal, immoral or dishonorable act (whether committed within the University/ College or otherwise) which brings bad name to the University/College.

(i) Any one or more of the penalties mentioned in Regulation 10 may be imposed on a student who is guilty of one or more of the above acts/charges.

(j) The penalty or penalties imposed shall be appropriate and proportional to the nature and gravity of the above act or acts.

11.10 The penalties which may be imposed and the authority or authorities competent to impose each kind of penalty are specified below:

PLENTY		AN OFFICER OR AUTHORITY COMPETENT TO IMPOSE THE PLENTY
(a)	(i) Exclusion from class room/ Laboratory/ Field work/ workshop up to four classes from his/ her own classes.	Class Teacher/Workshop Instructor
	(ii) Impose fine upto Rs. 500/-	-do-
(b)	Exclusion from the games or the field for the day.	Games Incharge
(c)	Exclusion from Instructional or sports tour or survey camp.	Teacher/Officer Incharge
(d)	(i) Exclusion from the department/Institute for a period not exceeding one week.	Chairman of the Teaching Department/Director of the Teaching Institute.
	(ii) Impose fine upto Rs. 1000/-	-do-
(e)	Exclusion from the Department/Institute for a period not exceeding two weeks.	Dean of the concerned Faculty /Principal of the College on the recommendations of the concerned Departmental Committee
(f)	Fine not exceeding Rs.500/-	Teacher Incharge, or Superintendent of Workshop
(g)	Fine not exceeding Rs.5000/-	Dean of the Faculty Concerned/Principal of the College on the recommendation of the Concerned Departmental Committee.
	(i) Fine not exceeding Rs.10,000/-	Vice-chancellor on the Recommendations of the Dean concerned and concerned Departmental Committee
(h)	(ii) Exclusion from the department/Institute for a period not exceeding 3 weeks	-do-
	(iii) Fine upto Rs. 20,000/-	Vice-chancellor on the recommendations of the Discipline Committee.
(i)	With-holding of issue of character certificate	Chairman of the Teaching Department/Director of the Teaching Institute.
(j)	Cancellation of examination or part there-of, or debarring from appearing in any examination or part there-of.	Vice-Chancellor on the recommendations of the Discipline Committee
(k)	Cancellation of remission of fee or University Scholarship	Vice-Chancellor on the recommendations of the Dean of the Faculty concerned/Principal of the College.
(l)	Suspension or removal from position of authority in the University Sports.	Vice-Chancellor on the recommendations of the Executive Committee of the University Sports Board.
(m)	Suspension of admission from the University for a period specified or unspecified pending the final decision.	Dean/Principal of the concerned Faculty on the recommendations of the Departmental Committee.
(n)	Rustication/Expulsion from the University for a period not exceeding one year.	Vice-Chancellor on the recommendations of the Discipline Committee
(o)	Rustication/expulsion from the University for a period exceeding one year.	Syndicate on the recommendations of the Discipline Committee
(p)	Cancellation of admission from the University.	Syndicate on the recommendations of the Discipline Committee
(q)	With-holding issuance of any degree.	Syndicate on the Recommendations of the Discipline Committee

Provided that the superior authorities shall be equally competent to impose lighter penalties with the competence of inferior authorities as prescribed above.

11.11 No student shall be rusticated or expelled from the University unless he/she has been allowed a reasonable chance of defending the accusation against him/her provided that if the competent authority is satisfied it may take such an action under emergency to avoid any grave consequences.

11.12 (i) An appeal against imposition of the penalties shall lie with the Vice- Chancellor, provided that where the penalty has been imposed by the Vice-Chancellor, himself, an appeal shall lie with the Syndicate.

Provided that when a penalty has been imposed by the Syndicate, an application for review can be made to the Syndicate.

(ii) No appeal by a student under these Regulations shall be entertained unless it is presented within two weeks from the date on which the decision is communicated to him/her, provided that the Vice-Chancellor may for valid reasons condone delay in any individual case.

11.13 The Vice-Chancellor or any teacher or officer duly authorized by the Vice-Chancellor/Principal/Director of the Constituted/ Affiliated Colleges/Institutes/Center of Excellence may direct a student to pay compensation for any loss or damage to property belonging to the University or to fellow student or to an employee of the University/College, caused by willful act or gross negligence of the student and if the student does not pay such compensation within a reasonable time, competent authority, as the case may be, may take suitable action against him/her for indiscipline and impose upon him/her any of the penalties prescribed by Regulation 11.10 above.



MEHRAN UNIVERSITY
OF
ENGINEERING AND TECHNOLOGY

PRE-ADMISSION TEST

PRE-ADMISSION TEST

DEPARTMENT OF SOFTWARE ENGINEERING

PRE-ADMISSION TEST (OCTOBER 11, 2015)

GENERAL INSTRUCTIONS

In order to conduct the test efficiently and transparently, the candidate must follow the following instructions and the instructions given by the invigilators/ on the public address system.

1. The candidate will be required to write his/her name, father's name, test booklet number and fill the seat number on answer sheet and sign the sheet.
2. All rough work can be done on the back of this sheet.
3. The test is divided into four parts i.e. Mathematics/Biology, Physics, Chemistry/ Computer Science and English. Each part is composed of many 25 questions. Total time to solve all the questions of all four parts is 60 minutes (01 hour).
4. The instructor will inform on public address system when to "START" the test and when to "STOP".
5. Mark the correct answer only.
6. The candidates should carefully think about the answer before marking it on the answer sheet. Once an answer is marked on the answer sheet, the candidate is "NOT" permitted to change any of his/her answer in any way. All such answers will be treated as wrong.
7. In the interest of fairness, it is insisted that no one should continue work even for a moment after the announcement has been made or the invigilator has asked that the work be stopped.
8. During the test, do not talk, whisper, or turn your eyes away from your own papers.
9. Any evidence of cheating or non-compliance with instructions will disqualify the candidate(s) from the test and his/her name will be removed from the list of the candidates for admission.
10. There will be no negative marking on wrong answer. Each correct answer carries one mark.
11. When the announcement is made to "STOP", cover your test booklet with the answer sheet.
12. Tearing pages or writing anything anywhere on the test booklet will disqualify the candidate from the test.
13. The test booklet is the property of university. The candidate will have to return the test booklet at the end of the test. If any candidate takes the booklet away for any reason, he will be treated according to the law and his/her name will be removed from the list of the candidates for admission.
14. The candidates should not mark answers on the test booklet, all answers must be written only on the answer sheet with the BLACK ball point pen provided to them.
15. Don't leave your seats unless and until announced by public address system.

Mehran University of Engineering & Technology Jamshoro, Sindh-Pakistan

PLEASE DO NOT WRITE ANYTHING ON THIS PAGE
ALL ANSWERS MUST BE GIVEN ON THE ANSWER SHEET
INSTRUCTIONS
FOR
PART-I PHYSICS

In this part of the test you will have 25 questions like one's that given below.

EXAMPLES:

1. The product of mass and velocity is called:

- a. Acceleration
- b. Moment Arm
- c. Negative Accelerations
- d. Momentum

We know that the product of mass and velocity is called momentum. Hence the correct answer is **MOMENTUM**.
Therefore, the Circle Containing letter "d" will be marked by filling it completely on the answer sheet.

2. The production of X-Rays can be regarded as an inverse of:

- a. Electromagnetic effect
- b. Photoelectric effect
- c. Compton's effect
- d. Photon effect

In the above example the correct answer is **PHOTOELECTRIC EFFECT** so the circle containing letter "b" on the answer sheet should be marked by filling it completely.

Mehran University of Engineering & Technology Jamshoro, Sindh-Pakistan

PLEASE DO NOT WRITE ANYTHING ON THIS PAGE
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INSTRUCTIONS
FOR
PART-II CHEMISTRY

In this part of the test you will have 25 questions like one's that given below:

EXAMPLES:

1. The Chemistry of Carbon is Called:

- a. Organic Chemistry
- b. Inorganic Chemistry
- c. Physical Chemistry
- d. Pharmaceutical Chemistry

2. How many moles of sulphur are there in 64 grams of the element?

- a. 1
- b. 2
- c. 3
- d. 4

Mehran University of Engineering & Technology Jamshoro, Sindh-Pakistan

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INSTRUCTIONS
FOR
PART-II COMPUTER SCIENCE

In this part of the test you will have 25 questions like one's that given below:

EXAMPLES:

1. Keyboard is a:

- a. Input device
- b. Output device
- c. Important device
- d. Plastic device

2. Personal Computer consist of:

- a. Central Processing Unit
- b. Input
- c. Output
- d. All of the above

Mehran University of Engineering & Technology Jamshoro, Sindh-Pakistan

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INSTRUCTIONS
FOR
PART-III MATHEMATICS

In this part of the test you will have 25 questions like one's that given below:

EXAMPLES:

1. If $\sqrt{\cos\phi} \sqrt{\cos\phi} \sqrt{\cos\phi} \dots = 1$, then $\phi =$

- a) $n\pi/2$
- b) $2n\pi$
- c) $n\pi$
- d) $2n\pi/3$

2. If $y = f(x)$, then $\frac{dy}{dx}$ is defined as _____

a) $\frac{dy}{dx} = \lim_{\delta x \rightarrow 0} \frac{f(x+\delta x) - f(x)}{\delta x}$

b) $\frac{dy}{dx} = \lim_{\delta x \rightarrow 0} \frac{f(x-\delta x) - f(x)}{\delta x}$

c) $\frac{dy}{dx} = \lim_{\delta x \rightarrow 0} \frac{f(x-\delta x) + f(x)}{\delta x}$

d) $\frac{dy}{dx} = \lim_{\delta x \rightarrow 0} \frac{f(x+\delta x) + f(x)}{\delta x}$

Mehran University of Engineering & Technology
Jamshoro, Sindh-Pakistan

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INSTRUCTIONS
FOR
PART-III BIOLOGY

In this part of the test you will have 25 questions like one's that given below:

EXAMPLES:

1. Presence of one of the followings made evolution of respiration possible
 - a) Carbon dioxide
 - b) Oxygen
 - c) Nitrogen
 - d) Inert gasses

2. If non-protein part is covalently bonded, it is known as
 - a) Co-enzyme
 - b) Activation
 - c) Prosthetic group
 - d) Product

Mehran University of Engineering & Technology Jamshoro, Sindh-Pakistan

PLEASE DO NOT WRITE ANYTHING ON THIS PAGE
ALL ANSWERS MUST BE GIVEN ON THE ANSWER SHEET

INSTRUCTIONS FOR PART-IV ENGLISH

In this part of the test you will have 25 questions like one's that given below:

EXAMPLES:

1. Why did Kashmir not join Pakistan?
 - a) Because major portion of population was the Hindus
 - b) Because major portion of population was the Muslims
 - c) Because major portion of population was the Sikhs
 - d) Because it was treacherously made over to india

2. Encircle the response which in your opinion is the most appropriate synonym of the given word:
Genocide
 - a) Killing an entire race
 - b) Self destruction
 - c) Murder of a father
 - d) Murder of a king

Answer Sheet for Pre-Admission Test of Session 2015 - 16

Rightly mark the correct option

Answer Sheet No. _____

APPLICANT'S NAME									

FATHER'S NAME									

SEAT NO				
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

Group	
<input type="radio"/>	PRE-ENGINEERING
<input type="radio"/>	GENERAL SCIENCE
<input type="radio"/>	PRE-MEDICAL

Test Booklet No.

	Physics				Chemistry/Computer				Mathematics/Biology				English						
	Part-I				Part-II				Part-III				Part-IV						
1	a	b	c	d	26	a	b	c	d	51	a	b	c	d	76	a	b	c	d
2	a	b	c	d	27	a	b	c	d	52	a	b	c	d	77	a	b	c	d
3	a	b	c	d	28	a	b	c	d	53	a	b	c	d	78	a	b	c	d
4	a	b	c	d	29	a	b	c	d	54	a	b	c	d	79	a	b	c	d
5	a	b	c	d	30	a	b	c	d	55	a	b	c	d	80	a	b	c	d
6	a	b	c	d	31	a	b	c	d	56	a	b	c	d	81	a	b	c	d
7	a	b	c	d	32	a	b	c	d	57	a	b	c	d	82	a	b	c	d
8	a	b	c	d	33	a	b	c	d	58	a	b	c	d	83	a	b	c	d
9	a	b	c	d	34	a	b	c	d	59	a	b	c	d	84	a	b	c	d
10	a	b	c	d	35	a	b	c	d	60	a	b	c	d	85	a	b	c	d
11	a	b	c	d	36	a	b	c	d	61	a	b	c	d	86	a	b	c	d
12	a	b	c	d	37	a	b	c	d	62	a	b	c	d	87	a	b	c	d
13	a	b	c	d	38	a	b	c	d	63	a	b	c	d	88	a	b	c	d
14	a	b	c	d	39	a	b	c	d	64	a	b	c	d	89	a	b	c	d
15	a	b	c	d	40	a	b	c	d	65	a	b	c	d	90	a	b	c	d
16	a	b	c	d	41	a	b	c	d	66	a	b	c	d	91	a	b	c	d
17	a	b	c	d	42	a	b	c	d	67	a	b	c	d	92	a	b	c	d
18	a	b	c	d	43	a	b	c	d	68	a	b	c	d	93	a	b	c	d
19	a	b	c	d	44	a	b	c	d	69	a	b	c	d	94	a	b	c	d
20	a	b	c	d	45	a	b	c	d	70	a	b	c	d	95	a	b	c	d
21	a	b	c	d	46	a	b	c	d	71	a	b	c	d	96	a	b	c	d
22	a	b	c	d	47	a	b	c	d	72	a	b	c	d	97	a	b	c	d
23	a	b	c	d	48	a	b	c	d	73	a	b	c	d	98	a	b	c	d
24	a	b	c	d	49	a	b	c	d	74	a	b	c	d	99	a	b	c	d
25	a	b	c	d	50	a	b	c	d	75	a	b	c	d	100	a	b	c	d

Candidate's Signature

Invigilator's Signature

PRE-ADMISSION TEST

PRE-ADMISSION TEST OCTOBER 11, 2015 INSTRUCTIONS

Marking the Answer (on Answer Sheet)

- For every question in the question paper, four choices of answer are given. Please mark your choices by filling in the appropriate circle completely, making it a dark circle as shown:



- Some examples of improper marking are shown below



- Do not mark more than one circle for an answer. Multiple answers for a question will be regarded as incorrect.
- Do not bend or fold your answer sheet.
- Use your time efficiently. Do not spend too much time on one question, otherwise you may run short of time for other questions.
- The candidate is advised to mark the answer sheet in such a way that a good impression comes on the duplicate copy.
- At the conclusion of the test the candidate should carefully deatch the duplicate copy so that the original copy may not be changed.
- The candidate will return the original answer sheet and carbon paper to the invigilator, and keep duplicate copy of answer sheet with himself/herself as it is his/her property.



ISO 9001 Certified



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