

Undergraduate Prospectus  
2021



*100 Years of Excellence 1921-2021*

University of Engineering & Technology, Lahore

## VISION

To generate knowledge for global competitive advantage and become a leading world class research university.

## MISSION

To play a leading role as a university of engineering and technology, in teaching, innovation and commercialization that is internationally relevant and has a direct bearing on national industrial, technological and socio-economic development.

## CHANCELLOR'S MESSAGE

University of Engineering and Technology, Lahore, enjoys a respectable position as a leading institution amongst the reputed engineering universities of the world. Being a pioneering institution of engineering and technology in Pakistan, it cherishes a rich tradition of imparting quality engineering and technical education to the best brains of the country.

It is indeed a matter of great satisfaction for me to note that significant improvement has been achieved in the sphere of engineering and technical education at the University in accordance with national and international standards. With its emphasis on research and applied disciplines relevant to the need of time, the University is certainly alive to the increasing demand of professional and progressive engineering for national development.

It is equally commendable that the University has created a modern infrastructure and has established its sub campuses at Kala Shah Kaku, Faisalabad, Narowal and a constituent college at Gujranwala for furtherance of engineering studies in the country. This has certainly made it possible for students from diverse areas in Punjab to update their knowledge in various technical disciplines, since modern technology has become essential for rapid pro

I am confident that efforts to excel in the field of higher education and the inculcation of technical expertise in the students of the University and its campuses will continue in future with a greater zeal.



CHAUDHRY MUHAMMAD SARWAR

Governor Punjab

Chancellor University of Engineering & Technology, Lahore

## VICE CHANCELLOR'S MESSAGE

I am pleased to state that UET as a premier institution established in 1921 has now become an icon of quality in engineering education and it is a great honor for me to serve my Alma Mater. As you know that the vision and mission are realigned recently to promote education, research and innovation, which are mandatory for technological development in the country. This has been demonstrated by the alumni who are serving in important national projects (i.e. engineering, design, IT, energy, architecture, planning, R&D and infrastructure), organizations and multinational companies.

The new initiatives are taken for implementation of Outcome Based Education (OBE) to enhance student learning outcomes in their degree programs with emphasis on research, knowledge, skills and values. This will certainly help produce well-rounded graduates having advanced knowledge in their fields and humanistic rectitude to be fit to serve for technological progress and to confront social challenges in society.

The faculty has set the quality benchmarks to achieve the milestones and key performance indicators (KPIs) for research, commercialization, entrepreneurship and better learning outcomes in all programs. The administration is aware of the challenges and difficulties to overcome and to provide best services to students and faculty, and bring harmonization in activities of all departments, centers and hostels. These efforts will lead to improvement in quality of education, services as well as national and international ranking of the university. We are also strengthening our linkages with alumni, industry, Government departments and international partners for academic cooperation.

I congratulate the students selected on merit for their choice to join UET and accept the challenge to work harder and smarter to excel in science, technology, research and management programs as well as participate in sports, professional chapter competitions, and co-curricular activities.

I also take this opportunity to welcome the incoming students at all campuses of UET and hope that their stay at the university will be pleasant with good learning experience.



PROF. DR. SYED MANSOOR SARWAR  
Vice Chancellor  
University of Engineering & Technology, Lahore

# UNIVERSITY OF ENGINEERING AND TECHNOLOGY LAHORE

**Chancellor**

**CHAUDHARY MUHAMMAD SARWAR**

Governor of Punjab

**Pro Chancellor**

**RAJA YASIR HUMAYUN SARFRAZ**

Minister for Education (Higher Education)

**Vice Chancellor**

**PROF. DR. SYED MANSOOR SARWAR**

**Registrar**

**MUHAMMAD ASIF**

**Controller of Examinations**

**MUHAMMAD ZARGHAM NUSRAT**

**Treasurer**

**IMRAN BABER**

## DEANS OF FACULTIES

Faculty of Electrical Engineering  
**PROF. DR. MUHAMMAD KAMRAN**

Faculty of Mechanical Engineering  
**PROF. DR. NADEEM AHMAD MUFTI**

Faculty of Civil Engineering  
**PROF. DR. HABIB UR REHMAN**

Faculty of Chemical, Metallurgical & Polymer Engineering  
**PROF. DR-ING. NAVEED RAMZAN**

Faculty of Earth Sciences & Engineering  
**PROF. DR. MUHAMMAD ZUBAIR ABU BAKAR**

Faculty of Architecture & Planning  
**PROF. DR. RIZWAN HAMEED**

Faculty of Natural Sciences, Humanities & Islamic Studies  
**PROF. DR. MUHAMMAD SHAHID RAFIQUE**

## CHAIRPERSONS/ DIRECTORS OF TEACHING DEPARTMENTS/ INSTITUTES

Electrical Engineering  
**PROF. DR. MUHAMMAD TAHIR**

Department of Geological Engineering  
**DR. MUHAMMAD FAROOQ AHMED**

Computer Science  
**PROF. DR. MUHAMMAD SHOAIB**

Petroleum and Gas Engineering  
**PROF. DR. MUHAMMAD KHURRAM ZAHOOR**

Computer Engineering  
**PROF. DR. ALI HAMMAD AKBAR**

Metallurgical & Materials Engineering  
**PROF. DR-ING FURQAN AHMED**

Mechanical Engineering  
**PROF. DR. NASIR HAYAT**

School of Architecture & Design  
**PROF. DR. RIZWAN HAMEED**

Industrial & Manufacturing Engineering  
**PROF. DR. QAISER SALEEM**

Architecture  
**PROF. DR. RIZWAN HAMEED**

Mechatronics & Control Engineering  
**DR. ALI RAZA**

Product & Industrial Design  
**PROF. DR. RIZWAN HAMEED**

Civil Engineering  
**PROF. DR. KHALID FAROOQ**

City & Regional Planning  
**PROF. DR. SHAKER MAHMOOD MAYO**

Institute of Environmental Engineering & Research  
**PROF. DR. SAJJAD H. SHEIKH**

Physics  
**PROF. DR. ANWAR LATIF**

Architectural Engineering & Design  
**PROF. DR. SAJJAD MUBIN**

Chemistry  
**PROF. DR. SYEDA RUBINA GILANI**

Transportation Engineering & Management  
**PROF. DR. AMMAD HASSAN KHAN**

Mathematics  
**PROF. DR. MUHAMMAD MUSHTAQ**

Chemical Engineering  
**PROF. DR. SAIMA YASIN**

Humanities & Social Sciences  
**DR. AMNA NIAZI**

Polymer & Process Engineering  
**PROF. DR. ASIF ALI QAISER**

Islamic Studies  
**DR. HAFIZ MUHAMMAD SHAHBAZ**

Department of Mining Engineering  
**PROF. DR. ZULFIQAR ALI**

Institute of Business and Management  
**DR. NASIR MALIK**

Department of Textile Engineering  
**Dr. MUHAMMAD MOHSIN**

## HEADS OF NON-TEACHING DEPARTMENTS

Director Research, Innovation and Commercialization  
**DR. MUHAMMAD AZEEM RAZA**

Director Students Affairs  
**PROF. DR. ASIF ALI QAISER**

Director Studies  
**PROF. DR. AMMAD HASSAN KHAN**

Director International Students Office  
**DR. AMNA NIAZI**

Senior Warden  
**PROF. DR. MUHAMMAD MUSHTAQ**

Director Students Financial Aid & Career Services  
**PROF. DR. MUHAMMAD USMAN GHANI KHAN**

Convener Admission Committee / In-charge Students Section  
**DR. ASIM LOAN**

Director, Al-Khwarizmi Institute of Computer Sciences  
**PROF. DR. WAQAR MAHMOOD**

Focal Person Higher Education Commission  
**DR. MUHAMMAD AZEEM RAZA**

Director Planning and Development  
**DR. QASIM MANZOOR**

Chairman Health Committee  
**PROF. DR. KHALID MAHMOOD UL HASSAN**

Project Director Lahore Campus  
**ENGR. ASAD MASOOD**

Chairman Transport Committee  
**PROF. DR. ZIA-UR-REHMAN**

Project Director University City Campus  
**ENGR. AWAIS MALIK**

Chairman Library Committee  
**PROF. DR. ASADULLAH QAZI**

Project Director Faisalabad Campus  
**ENGR. AWAIS MALIK**

Chairman Proctorial Board  
**PROF. DR. MUHAMMAD SHOAB**

Resident Officer  
**MUHAMMAD ASIF**

Chairman Sports Committee  
**PROF. DR. SHAKER MAHMOOD MAYO**

Resident Auditor  
**DR. ZUBAIR FAROOQ**

Director Repair and Maintenance Centre  
**PROF. DR. WAQAR MAHMOOD**

Public Relations Officer  
**Ms. SHAHIDA NAZEER**

Director Automotive Engineering Centre  
**PROF. DR. ASAD NAEEM SHAH**

Director Quality Enhancement Cell  
**PROF. DR. AMER AZIZ**



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## ACADEMIC CALENDAR (2021-2022)

### Fall Semester (For Sessions 2018 to 2020)

Semester Starts	Monday, 13 <sup>th</sup> September 2021
Semester Ends (after 15 weeks)	Friday, 24 <sup>th</sup> December 2021
Examination period	Monday, 27 <sup>th</sup> December 2021 to Friday, 7 <sup>th</sup> January 2022
Semester Break	Monday, 10 <sup>th</sup> January 2022 to Friday, 14 <sup>th</sup> January 2022
Deadline for Submission of Results	Friday, 14 <sup>th</sup> January 2022

### Spring Semester (For Sessions 2018 to 2020)

Semester Starts	Monday, 17 <sup>th</sup> January 2022
Semester Ends (after 15 weeks)	Friday, 29 <sup>th</sup> April 2022
Examination period	Monday, 9 <sup>th</sup> May 2022 to Friday, 20 <sup>th</sup> May 2022
Deadline for Submission of Results	Friday, 27 <sup>th</sup> May 2022

### Summer Semester (Optional) (For Session 2018 to 2020)

Semester Starts	Monday, 27 <sup>th</sup> June 2022
Semester Ends (after 8 weeks of study)	Friday, 19 <sup>th</sup> August 2022
Examination Period	Monday, 22 <sup>nd</sup> August 2022 to Friday, 26 <sup>th</sup> August 2022
Deadline for Submission of Results	Friday, 2 <sup>nd</sup> September 2022

### Fall Semester (For Session 2021)

Semester Starts	Monday, 8 <sup>th</sup> November 2021
Semester Ends (after 15 weeks)	Friday, 18 <sup>th</sup> February 2022
Examination period	Monday, 21 <sup>st</sup> February 2022 to Friday, 4 <sup>th</sup> March 2022
Semester Break	Monday, 7 <sup>th</sup> March 2022 to Friday, 11 <sup>th</sup> March 2022
Deadline for Submission of Results	Friday, 11 <sup>th</sup> March 2022

### Spring Semester (For Session 2021)

Semester Starts	Monday, 14 <sup>th</sup> March 2022
Semester Ends (after 15 weeks)	Friday, 24 <sup>th</sup> June 2022
Examination period	Monday, 27 <sup>th</sup> June 2022 to Friday, 8 <sup>th</sup> July 2022
Deadline for Submission of Results	Friday, 15 <sup>th</sup> July 2022

### Guided Summer Semester (Optional) (For Session 2021)

Semester Starts	Monday, 18 <sup>th</sup> July 2022
Semester Ends (after 4 weeks of study)	Friday, 12 <sup>th</sup> August 2022
Examination period	Monday, 15 <sup>th</sup> August 2022 to Friday, 19 <sup>th</sup> August 2022
Deadline for Submission of Results	Friday, 26 <sup>th</sup> August 2022

## THE UNIVERSITY

Though this institution received its charter as a University in the year 1961, it has a much longer history as a distinguished seat of learning in engineering sciences. It started in 1921 as the Mughalpura Technical College, deriving its name from the famous suburb of the old city of Lahore, richly dotted with architectural heritage of the great Mughals including the magnificent Shalimar Gardens. Its more familiar name of the pre-University era, the Maclagan Engineering College, was given to it in 1923 when Sir Edwards Maclagan, the then Governor of the Punjab, laid the foundation stone of the building, now called the Main Block, which still retains its majesty in spite of the wear and tear of almost a century. At that stage, the institution offered courses of study in two disciplines, namely Electrical and Mechanical Engineering. The year 1932 is a major milestone in the evolution of this institution when it was affiliated with the University of the Punjab for award of a Bachelor's Degree in Engineering. At the dawn of Independence, i.e., in 1947, it had well-established B.Sc. Degree courses in civil, electrical and mechanical engineering, and the quality of its scholastic standards won it a place of prestige throughout the British India.

In 1954 it started a Bachelor's Degree course in Mining Engineering, the first-ever of its kind in the country. But its massive expansion and development commenced in 1961 on its transformation into a University. It set for itself a variety of goals, but the first priority was to start teaching of those disciplines, which were crucial for national development but were not catered for by any institution in the country. Accordingly, in the sixties, Bachelor's degree courses were started in Chemical Engineering, Petroleum & Gas Engineering, Metallurgical Engineering, Architecture, and City & Regional Planning.

Later, the University concentrated its energies and resources on developing its postgraduate programs. By 1970s it had established over a score of Masters Degree Courses in diverse specializations of engineering, architecture, planning and allied disciplines. Ph.D. Degree Program was also instituted in a number of disciplines. The process of consolidating and strengthening continued to be a major concern of the University, with phenomenal increase in enrollment in seventies. Consequently, the University College of Engineering was established in 1975 at Sahiwal. For three years it functioned at Sahiwal and was shifted to its present campus at Taxila in 1978. Subsequently, this college was upgraded to a university and it is currently functioning as University of Engineering and Technology, Taxila.

Establishing traditions of research in the engineering and allied disciplines has been a major goal of the University. With this end in view, the University established a Directorate of Research, Extension and Advisory Services, which strives for the promotion and organization of research activities.

In the recent past, there has been a substantial rise in students' enrollment and the figure has now gone up to over 13,380. Currently, 2,928 students are pursuing postgraduate studies. The number of female students enrolling for different disciplines is ever on the increase and is 3,339 at present. The number of foreign students coming from countries, like Iran, Jordan, Kuwait, Kenya, Nepal, Saudi Arabia, Iraq, Bangladesh and Sri Lanka is over 473 which gives the University Campus a cosmopolitan character.

The university has 789 teachers of which 362 are Ph.D. degree holders, 101 are pursuing Ph.D. abroad.

The teaching departments of the University are grouped into the following seven faculties:

- Faculty of Electrical Engineering
- Faculty of Mechanical Engineering
- Faculty of Civil Engineering
- Faculty of Architecture & Planning
- Faculty of Chemical, Metallurgical and Polymer Engineering
- Faculty of Natural Sciences, Humanities and Islamic Studies
- Faculty of Earth Sciences and Engineering

The university set up a campus at Faisalabad in 2006 and also established a campus at Kala Shah Kaku in 2007, which is known as University's City Campus. Rachna College of Engineering & Technology, Gujranwala is a constituent college and follows the same academic curriculum and policies as the ones followed at the main campus in Lahore. In 2012, the university established a new campus in Narowal with an aim to produce quality technical manpower for the District of Narowal and its surroundings. In addition to managing its own campus, the University controls the academic programs and examinations of numerous institutions, which are affiliated with it for award of degrees.

## DEGREE PROGRAMS OFFERED AT UET

### 1. Degree Programs at Main Campus

- i. Bachelor of Science (B.Sc.) degree is offered in the following disciplines:
  - a) Architectural Engineering
  - b) Automotive Engineering
  - c) Chemical Engineering
  - d) Civil Engineering
  - e) City and Regional Planning
  - f) Computer Engineering
  - g) Computer Science
  - h) Electrical Engineering
  - i) Environmental Engineering
  - j) Geological Engineering
  - k) Industrial and Manufacturing Engineering
  - l) Mechanical Engineering
  - m) Mechatronics and Control Engineering
  - n) Metallurgical and Materials Engineering
  - o) Mining Engineering
  - p) Petroleum and Gas Engineering
  - q) Polymer Engineering
  - r) Transportation Engineering
- ii. Bachelor's Degree is offered in the following disciplines:
  - a) Architecture
  - b) Business Administration
  - c) Business Information Technology
  - d) Product and Industrial Design
- iii. Bachelor of Science (B.S.) Degree is offered in the following disciplines:
  - a) Chemistry
  - b) Mathematics
  - c) Physics

### 2. Degree Programs at New Campus Kala Shah Kaku (KSK)

- Bachelor of Science (B.Sc.) degree is offered in the following disciplines:
- a) Biomedical Engineering
  - b) Computer Science
  - c) Chemical Engineering
  - d) Electrical Engineering
  - e) Environmental Science
  - f) Mechanical Engineering
  - g) Software Engineering

### 3. Degree Programs at Faisalabad Campus

- Bachelor of Science (B.Sc.) degree is offered in the following disciplines:
- a) Chemical Engineering
  - b) Electrical Engineering
  - c) Environmental Science
  - d) Mechatronics & Control Engineering
  - e) Textile Engineering

### 4. Degree Programs at Rachna College of Engineering & Technology Gujranwala

- Bachelor of Science (B.Sc.) degree is offered in the following disciplines:
- a) Electrical Engineering
  - b) Mechanical Engineering
  - c) Industrial & Manufacturing Engineering
  - d) Computer Science

### 5. Degree Programs at Narowal Campus

- Bachelor of Science (B.Sc.) degree is offered in the following disciplines:
- a) Biomedical Engineering
  - b) Electrical Engineering
  - c) Mechanical Engineering
  - d) Civil Engineering
  - e) Computer Science

## AFFILIATED INSTITUTIONS AND PROGRAMS OFFERED

- 1. NFC Institute of Engineering and Fertilizer Research, Faisalabad**
  - a) Bachelor of Business Administration
  - b) B.Sc. Civil Engineering
  - c) B.Sc. (Hons) Computer Science
  - d) B.Sc. Chemical Engineering
  - e) B.Sc. Electrical Engineering
  - f) B.Sc. Mechanical Engineering
  - g) B.Sc. Civil Engineering Technology
  - h) B.Sc. Electrical Engineering Technology
  - i) B.Sc. Mechanical Engineering Technology
  - j) M.Sc. Chemical Engineering
- 2. Government College of Technology, Lahore**
  - a) B.Sc. Mechanical Engineering Technology
- 3. Government College of Technology, Faisalabad**
  - a) B.Sc. Electrical Engineering Technology
- 4. Sharif College of Engineering & Technology, Lahore**
  - a) B.Sc. Chemical Engineering
  - b) B.Sc. (Hons) Computer Science
  - c) B.Sc. Electrical Engineering
- 5. Dr. A. Q. Khan Institute of Technology, Mianwali**
  - a) B.Sc. Civil Engineering Technology
  - b) B.Sc. Electrical Engineering Technology
  - c) B.Sc. Mechanical Engineering Technology
- 6. Quaid-e-Azam College of Engineering and Technology, Sahiwal**
  - a) B.Sc. Civil Engineering
  - b) B.Sc. Electrical Engineering
  - c) B.Sc. Mechanical Engineering
  - d) B.Sc. Civil Engineering Technology
  - e) B.Sc. Electrical Engineering Technology
  - f) B.Sc. Mechanical Engineering Technology
- 7. Swedish College of Engineering & Technology, Rahim Yar Khan**
  - a) B.Sc. Civil Engineering
  - b) B.Sc. Mechanical Engineering
- 8. Sir Syed College of Computer Science, Lahore**
  - a) B.Sc.(Hons) Computer Science
- 9. Government Swedish Pakistani College of Technology, Gujrat**
  - a) B.Sc. Mechanical Engineering Technology
- 10. Grafton College, Islamabad**
  - a) B.Sc. (Hons) Computer Science
  - b) B.Sc. Electrical Engineering
- 11. Islam College of Engineering and Management Sciences, Sialkot**
  - a) B.Sc. Civil Engineering
  - b) B.Sc. Electrical Engineering
  - c) B.Sc. Mechanical Engineering

## UNDERGRADUATE ADMISSION PROCESS SCHEDULE 2021

Event	Date	Day
Availability of Undergraduate Prospectus	20-09-2021	Monday
On-line Filling and Submission of Admission Forms Starts	20-09-2021	Monday
Last date of On-Line Submission of Admission Forms	11-10-2021	Monday
Hafiz-e-Quran Test	Reporting Time 9:30 am 13-10-2021	Wednesday
Sports Test	Reporting Time 9:30 am 14-10-2021	Thursday
Announcement of 1 <sup>st</sup> Merit List (Evening)	15-10-2021	Friday
Last Date of Depositing Dues and Documents for 1 <sup>st</sup> Merit List	21-10-2021	Thursday
Announcement of 2 <sup>nd</sup> Merit List (Evening)	22-10-2021	Friday
Last Date of Depositing Dues and Documents for 2 <sup>nd</sup> Merit List	27-10-2021	Wednesday
Announcement of 3 <sup>rd</sup> Merit List (Evening)	28-10-2021	Thursday
Last Date of Depositing Dues and Documents for 3 <sup>rd</sup> Merit List	01-11-2021	Monday
Announcement of 4 <sup>th</sup> Merit List (Evening)	02-11-2021	Tuesday
Last Date of Depositing Dues and Documents for 4 <sup>th</sup> Merit List	04-11-2021	Thursday
Hostel Allotment Starts	05-11-2021	Friday
“Request to Shift to Lower Merit Preference” Option Opens (9:00 am)	05-11-2021	Friday
“Request to Shift to Lower Merit Preference” Option Closes (Noon)	06-11-2021	Saturday
Announcement of Merit List of Preference Change Applicants (9:00 pm)	07-11-2021	Sunday
<b>Regular Classes Commence</b>	<b>08-11-2021</b>	<b>Monday</b>
Allocation of Registration Numbers in Respective Departments	08-11-2021	Monday

# ADMISSION PROCEDURE

## 1. GENERAL INSTRUCTIONS

- Members of the University staff will be available for personal consultation during admission period.
- Try to submit the application as early as possible. Do not wait for the last date.
- As soon as the process of selection is complete, the merit list shall be notified showing the percentage aggregate marks of the applicants admitted in different disciplines against different categories.

## 2. REQUIRED SUBJECT COMBINATIONS AND EQUIVALENCE

2.1 Candidates having either one of the following subject combinations in their intermediate or equivalent are eligible to apply for admission in programs listed alongside each combination:

Subject Combinations in Intermediate/ equivalent qualification	Programs for which Eligible
Mathematics, Physics, Chemistry	All programs offered at UET.
Mathematics, Physics, Computer Science	Computer Science, Computer Engineering, Software Engineering, Architecture, City and Regional Planning, Product and Industrial Design, Mathematics, Physics, BBA, BBIT.
Mathematics, Physics, Statistics	Architecture, City and Regional Planning, Product and Industrial Design, Mathematics, Physics, BBA, BBIT.
Biology, Physics, Chemistry	Biomedical Engineering, Chemistry, Physics, Environmental Science, BBA, BBIT
Intermediate or equivalent subject combinations other than the above	BBA, BBIT

The University recognizes the following examinations as equivalent to the Intermediate in subject combinations listed above:

- Intermediate Examination of the Board of Intermediate & Secondary Education, Azad Kashmir.
- Intermediate Examination of the Agha Khan University Examination Board.
- Intermediate Examination of a Higher Education Commission (HEC) recognized/ approved institution.
- Equivalent examinations of non-Pakistani Boards.

## 2.2 Equivalence Certificates for Examinations Conducted by Non-Pakistani Boards

The determination of equivalence and issuance of equivalent marks certificate up to HSSC level for certificates other than those issued by Pakistan's Boards is the jurisdiction of the Inter Board Committee of Chairmen (IBCC) as per decision of the Supreme Court of Pakistan. Such applicants are required to attach an equivalence certificate showing marks with the application for admission issued by the IBCC. The following are the addresses of the IBCC offices:

- IBCC at FBISE Building, H-8/4, Islamabad
- IBCC Regional Office at BISE Building, 86 Mozang Road, Lahore

## 3. ELIGIBILITY FOR ADMISSION

### 3.1 General Eligibility Requirements

An applicant for admission to any of the bachelor's degree course offered by the University must fulfill the following requirements:

- He should have earned at least 60% marks in Intermediate/ DAE or equivalent foreign qualification examination excluding sports and Hafiz-e-Quran marks.
- He should have appeared in the Entry Test arranged by this University for that academic session in which he seeks admission. His subject combination in the Entry Test must be same as his intermediate (or equivalent) subject combination because he will be

considered for admission in the prescribed disciplines relevant to his subject combination only. This restriction does not apply to DAE qualified candidates.

- In case the candidate seeks admission based on B.Sc. Engineering Technology or equivalent degree, he should have obtained (or expect to obtain) at least 60% marks, in case of annual system, or a CGPA of 2.5 out of 4.0, in case of semester system.
- He should have earned (or expect to earn) at least 50% overall adjusted aggregate marks calculated according to the formula given in Merit Calculation section.
- He should be a bonafide resident of the area from where he seeks admission
- He should meet standards of physique and eyesight laid down in the medical certificate.

### 3.2 Other Eligibility Requirements

- An applicant for admission to any of the B.Sc. Engineering Degree Courses, B.Sc. City & Regional Planning, B.Sc. Computer Science, Bachelor's Degrees in Architecture and Product & Industrial Design, B.S. in Chemistry, Mathematics and Physics must have passed the Intermediate (Pre-Engineering) examination with Chemistry, Mathematics and Physics from a Board of Intermediate and Secondary Education of Pakistan or an equivalent examination recognized by the University.
- Intermediate or an equivalent examination with Physics, Mathematics and Computer Science shall be acceptable only for Computer Science, Computer Engineering, Software Engineering, City & Regional Planning, Architecture, Product & Industrial Design, Mathematics, Physics, BBA and BBIT.
- Intermediate or an equivalent examination with Physics, Mathematics and Statistics shall be acceptable only for admission in City & Regional Planning, Architecture, Product & Industrial Design, Mathematics, Physics, BBA and BBIT.
- Intermediate (Pre-Medical) or an equivalent examination with Physics, Biology and Chemistry shall be acceptable only for admission in Biomedical Engineering, Chemistry, Physics, Environmental Science, BBA and BBIT programs.
- Candidate with B.Sc. Engineering Technology or equivalent degrees should have his degree relevant to the branch of engineering, as prescribed by the university, in which he seeks admission.
- Candidate with DAE qualification should have their diploma relevant to the branch of engineering in which he seeks admission as explained later in this prospectus.
- Candidates with Intermediate or equivalent qualification in subject combinations/ qualification other than those listed above are only eligible to apply in BBA and BBIT programs.

### 3.3 Seats for Diploma Holders

- For admission against seats reserved for the holders of Diploma of Associate Engineer, the candidate should have passed diploma examination of a Board of Technical Education in the relevant technology.
- Applicants seeking admission against seats reserved for the holders of Diploma of Associate Engineer shall not be eligible unless their diplomas are in the relevant technology as specified against each degree course given below (the following list may be amended from time to time depending on notifications of Pakistan Engineering Council (PEC)):

### 3.4 Seats for Diploma Holders

For admission against seats reserved for the holders of Diploma of Associate Engineer, the candidate should have passed diploma examination of a Board of Technical Education in the relevant technology as specified against each degree course given below (the following list may be amended from time to time depending on notifications of Pakistan Engineering Council (PEC)):



**i. B.Sc. Electrical Engineering**

- a) Diploma in Electrical Technology
- b) Diploma in Telecommunication Technology
- c) Diploma in Electronics Technology
- d) Diploma in Avionics Technology
- e) Diploma in Instrumentation Technology
- f) Diploma in Information Technology
- g) Diploma in Precision Mechanical & Instrument Technology
- h) Diploma in Radar Technology
- i) Diploma in Automation Technology
- j) Diploma in Radio Technology
- k) Diploma in Instrumentation & Process Control Technology
- l) Diploma in Mechatronics
- m) Diploma in Computer/ Computer Information Technology

**ii. B.Sc. Computer Engineering**

- a) Diploma in Computer Information Technology
- b) Diploma in Computer Technology
- c) Diploma in Telecommunication Technology
- d) Diploma in Electrical Technology
- e) Diploma in Electronics Technology
- f) Diploma in Software Technology
- g) Diploma in Radar Technology
- h) Diploma in Automation Technology
- i) Diploma in Radio Technology
- j) Diploma in Instrumentation Technology
- k) Diploma in Instrumentation & Process Control Technology

**iii. B.Sc. Computer Science**

- a) Diploma in Computer Information Technology
- b) Diploma in Computer Technology
- c) Diploma in Information Technology
- d) Diploma in Software Technology
- e) Diploma in Electrical Technology
- f) Diploma in Mechanical Technology
- g) Diploma in Civil Technology
- h) Diploma in Electronics Technology
- i) Diploma in Biomedical Technology
- j) Diploma in Automation Technology
- k) Diploma in Radio Technology
- l) Diploma in Radar Technology
- m) Diploma in Instruments Technology
- n) Diploma in Instrumentation & Process Control Technology
- o) Diploma in Telecommunication Technology

**iv. B.Sc. Biomedical Engineering**

- a) Diploma in Biomedical Technology
- b) Diploma in Electrical Technology
- c) Diploma in Electronics Technology
- d) Diploma in Instrumentation Technology
- e) Diploma in Radar Technology
- f) Diploma in Automation Technology
- g) Diploma in Radio Technology
- h) Diploma in Instrumentation & Process Control Technology
- i) Diploma in Healthcare Technology
- j) Diploma in Mechatronics

**v. B.Sc. Mechanical Engineering**

- a) Diploma in Mechanical Technology
- b) Diploma in Precision Mechanical & Instruments Technology
- c) Diploma in Auto & Diesel Technology
- d) Diploma in Bio-Medical Technology
- e) Diploma in Dies & Mould Technology
- f) Diploma in Automation Technology
- g) Diploma in Refrigeration & Air Conditioning Technology
- h) Diploma in Aerospace Technology
- i) Diploma in Mechatronics Technology
- j) Diploma in Mechanical Technology with any specialization
- k) Diploma in Vacuum Technology

**vi. B.Sc. Industrial and Manufacturing Engineering**

- a) Diploma in Mechanical Technology
- b) Diploma in Cast Metal & Foundry Technology
- c) Diploma in Mechanical (Production) Technology
- d) Diploma in Auto & Diesel Technology.
- e) Diploma in Automation Technology
- f) Diploma in Mechanical (Construction Machinery) Technology
- g) Diploma in Chemical Technology
- h) Diploma in Dies and Mold Technology
- i) Diploma in Glass, Ceramics and Pottery Development Technology
- j) Diploma in Vacuum Technology
- k) Diploma in Mechatronics Technology
- l) Diploma in Mechanical Technology with any specialization

**vii. B.Sc. Mechatronics and Control Engineering**

- a) Diploma in Instruments Technology
- b) Diploma in Electrical Technology

- c) Diploma in Electronics Technology
- d) Diploma in Mechanical Technology
- e) Diploma in Radar Technology
- f) Diploma in Automation Technology
- g) Diploma in Radio Technology
- h) Diploma in Instrumentation & Process Control Technology
- i) Diploma in Mechatronics Technology
- j) Diploma in Mechanical Technology with any specialization

#### viii. B.Sc. Textile Engineering

- a) Diploma in Textile Technology
- b) Diploma in Spinning Technology
- c) Diploma in Textile Weaving Technology
- d) Diploma in Textile Dying and Printing Technology
- e) Diploma in Garments Technology
- f) Diploma in Dress Designing & Making / Fashion Design
- g) Diploma in Automation Technology
- h) Diploma in Printing and Graphics Arts
- i) Diploma in Chemical Technology
- j) Diploma in Leather Technology

#### ix. B.Sc. Civil Engineering

- a) Diploma in Civil Technology
- b) Diploma in Land & Mine Surveying Technology
- c) Diploma in Architecture Technology
- d) Diploma in Environmental Technology
- e) Diploma in Civil Technology with any Specialization

#### x. B.Sc. Architectural Engineering

- a) Diploma in Civil Technology
- b) Diploma in Architecture Technology
- c) Diploma in Construction Technology

#### xi. B.Sc. Transportation Engineering

- a) Diploma in Civil Technology

#### xii. B.Sc. Chemical Engineering

- a) Diploma in Chemical Technology
- b) Diploma in Chemical Processing Technology
- c) Diploma in Chemical Technology (specialization in Sugar Technology)
- d) Diploma in Petro Chemical Technology
- e) Diploma in Petroleum Technology

- f) Diploma in Leather Technology
- g) Diploma in Footwear Technology
- h) Diploma in Glass, Ceramics and Pottery Development
- i) Diploma in Chemical Technology with any specialization

#### xiii. B.Sc. Metallurgical and Materials Engineering

- a) Diploma in Metallurgy & Welding Technology
- b) Diploma in Foundry and Pattern Making Technology
- c) Diploma in Mechanical Technology
- d) Diploma in Cast Metal & Foundry Technology
- e) Diploma in Mechanical Technology with any specialization
- f) Diploma in Glass, Ceramics and Pottery Development

#### xiv. B.Sc. Polymer and Process Engineering

- a) Diploma in Chemical Technology
- b) Diploma in Chemical Processing Technology
- c) Diploma in Chemical Technology with any specialization
- d) Diploma in Petro Chemical Technology
- e) Diploma in Petroleum Technology

#### xv. B.Sc. Petroleum & Gas Engineering

- a) Diploma in Petroleum Technology
- b) Diploma in Chemical Technology
- c) Diploma in Petrochemical Technology

#### xvi. B.Sc. Mining Engineering

- a) Diploma in Land and Mine Surveying Technology
- b) Diploma in Mining Technology

#### xvii. B. Architecture

- a) Diploma in Architecture
- b) Diploma in Civil Technology
- c) Diploma in Land and Mine Surveying Technology

#### xviii. B. Product and Industrial Design

All Technologies are eligible to apply

#### xix. B. S. Chemistry, Mathematics and Physics

All Technologies are eligible to apply

### 3.4 Seats for B.Sc. Engineering Technology or Equivalent Degree Holders

Applicants seeking admission against seats reserved for the holders of B.Sc. Engineering Technology or equivalent degrees shall be eligible if their degrees are in the relevant technology as specified against each degree course given below. Relevancy of the technology with changed nomenclature will be acceptable subject to the approval of the concerned Dean:

- a) **Electrical Engineering**  
Electrical Technology, Electrical Engineering Technology, Electronics Technology
- b) **Biomedical Engineering**  
Biomedical Technology, Biomedical Engineering Technology
- c) **Civil Engineering**  
Civil Technology, Civil Engineering Technology
- d) **Textile Engineering**  
Textile Technology, Textile Engineering Technology
- e) **Mechanical Engineering**  
Mechanical Technology, Mechanical Engineering Technology, Industrial Technology, Industrial Engineering Technology, Mechatronics Technology, Mechatronics Engineering Technology
- f) **Industrial and Manufacturing Engineering**  
Mechanical Technology, Mechanical Engineering Technology, Industrial Technology, Industrial Engineering Technology, Mechatronics Technology, Mechatronics Engineering Technology
- g) **Chemical Engineering**  
Chemical Technology, Chemical Engineering Technology, Polymer Technology, Polymer Engineering Technology, Material Technology, Material Engineering Technology

### 4. AGE LIMIT AND GENDER

There is no age restriction for seeking admission to any bachelor's degree course at the University. Male, female and transgender persons are eligible to apply for all seats.

## DETERMINATION OF MERIT

### 1. EXAMINATIONS CONSIDERED FOR MERIT PURPOSE

For admission to bachelor's degree courses, except BBA and BBIT programs, and determination of merit the following examinations are considered:

- a) Intermediate examination or equivalent with the following combinations: Mathematics, Physics, Chemistry; or Mathematics, Physics, Computer Science; or Mathematics, Physics, Statistics; or Physics, Chemistry, Biology
- b) Diploma of Associate Engineer or B.Sc. Engineering Technology or equivalent for reserved seats only:
- c) Entry Test 2021.

**1.1** For admission to BBA and BBIT programs, and determination of merit the following examinations are considered:

- i. Intermediate examination or equivalent of all combinations.
- ii. Diploma of Associate Engineer or B.Sc. Engineering Technology or equivalent.

### 2.0 MERIT DETERMINATION

The comparative merit of applicants will be determined on the basis of overall adjusted admission marks obtained by them in the examinations stated above:

- i. For applicant with Intermediate or equivalent qualification:
  - a) 70% weight to Percentage marks obtained including Sports and Hafiz-e-Quran marks.
  - b) 30% weight to Entry test marks.
- ii. For applicants having Diploma of Associate Engineer qualification (for reserved seats only):
  - a) 70% weight to Percentage of marks obtained in Diploma of Associate Engineer including Sports and Hafiz-e-Quran marks.
  - b) 30% weight to Entry test marks.
- iii. For applicants having B.Sc. Engineering Technology or equivalent qualification (for reserved seats only):
  - a) 70% weight to Percentage of marks obtained in B.Sc. Engineering Technology degree in case of annual system. In case of the degree being awarded under semester system, a CGPA of 2.5 out of 4.0 will be equated to 60% marks and a CGPA of 4.0 out of 4.0 would be equated to 90% marks. Other values of CGPA out of 4.0 will be interpolated accordingly.
  - b) 30% weight to Entry test marks.

### 3.0 MERIT OF INTERMEDIATE (PRE-MEDICAL) WITH MATHEMATICS

In determining the merit of an applicant having Intermediate (Pre-Medical) with Mathematics as an additional subject, the marks obtained in the subject of Biology are replaced by those obtained in Mathematics.

### 4.0 CREDIT FOR HAFIZ-E-QURAN

- i. A Hafiz -e-Quran is given additional marks in determination of merit. He will get the benefit only if he has:
  - a) Filled in the necessary check box provided in the online application form and
  - b) Appeared before the "verification committee" appointed by the Vice Chancellor for oral test, carrying zero to twenty marks, which has awarded marks according to the degree of his proficiency.
- ii. Intermediate/ DAE/ B.Sc. Engineering Technology or equivalent marks are adjusted according to the following formula: Percentage Marks obtained in Intermediate/ DAE/ B.Sc. Engineering Technology or equivalent + (Marks awarded by the Verification Committee/11)

The "Verification Committee" will hold oral test at 09:30 am in UET Lahore on Wednesday, 13<sup>th</sup> October 2021. It may be noted that no separate call letters will be issued to the concerned applicants in this connection.

## 5.0 CREDIT FOR SPORTS

- i. A maximum of ten marks will be added to the academic marks in Intermediate or equivalent examination of an applicant who is a sportsman. He will get the benefit only if he has:
  - a) Filled in the necessary check box provided in the on line application form; and
  - b) Appeared before the “verification committee” appointed by the Vice–Chancellor for credit of marks and the Committee will determine his proficiency as a Sportsman according to the following criteria:
    - “05 Marks for Physical Test showing actual performance and endurance”
    - “01 Marks for Inter College Champion”
    - “02 Marks for District Level Champion”
    - “03 Marks for Divisional Level”
    - “04 Marks for Provincial Level”
    - “05 Marks for National Level or under 18 representation abroad”
- ii. Intermediate/ DAE/ B.Sc. Engineering Technology or equivalent marks are adjusted according to the following formula: Percentage Marks obtained in Intermediate/ DAE/ B.Sc. Engineering Technology or equivalent + (Marks awarded by the Verification Committee/11) The “verification committee” will meet, for this purpose, in the office of The Chairman Sports Committee along with Convener Admission Committee will hold sports test at 9:00 am Wednesday, 14<sup>th</sup> October 2021. It may be noted that no separate call letters will be issued to the concerned applicants in this connection.

## 6.0 DETERMINATION OF MERIT IN CASE OF EQUAL PERCENTAGE OF ADMISSION MARKS

If two or more applicants have equal percentage of admission marks (up to four places of decimal after truncation), they shall be treated at par for the purpose of admission.

### Explanation

In case there is a tie for the last seat in a particular discipline/category, then all the candidates who have secured equal percentage of admission marks (up to three places of decimal) shall be admitted. No transfer or new entry into that discipline/category shall, however, be considered unless the actual number of candidates already admitted falls below the number of allocated seats for that discipline/category.

## 7.0 MERIT DETERMINED CATEGORY WISE

The seats for admission to the bachelor's degree courses at the University are distributed over various categories. These categories are discussed below. The details of the distribution of seats are available in the Seats Allocation Chart. The applicants for each category are grouped separately. Then on the basis of the percentage admission marks, comparative merit of the applicants comprising the group is prepared. The applicants belonging to a category thus compete for admission amongst themselves for the seats allocated to it.

## 8.0 TRANSFER ON THE BASIS OF GIVEN PREFERENCES AND MERIT

In case a seat in any discipline/category of applicant's higher preference falls vacant and he is eligible for transfer to that discipline/category on the basis of his merit, he shall be automatically transferred to the discipline/category.

## 9.0 VARIATION IN SEATS

The University authorities may exercise their right at any time to increase or decrease the number of seats allocated to any category and there shall be no appeal against such a decision.

## 10.0 UN-UTILIZED SEATS

If some seats allocated to any category (other than Open Merit) remain un-utilized for lack of adequate applicants, then the un-utilized seats are transferred to Punjab domiciled Open Merit category and are filled under the same terms and conditions as applicable to the former.

## APPLICATION CATEGORIES AND SYMBOLS

Category	Description	How to Apply?
<b>A1</b> [Open Merit Seats (subsidized)]	Only Punjab domiciled candidates, having requisite qualification (other than DAE), can apply for open merit seats under 'A1' category. <b>Tuition fee is subsidized.</b>	Submit application to UET Lahore according to the procedure and requirements laid down in this prospectus. The selection and allocation of disciplines are made by the UET according to merit.
<b>A1-M</b> [Open Merit Seats (subsidized)]	Only Punjab domiciled candidates, having Intermediate (Pre-Medical) qualification can apply for open merit seats under 'A1-M' category. <b>Tuition fee is subsidized.</b>	Submit application to UET Lahore according to the procedure and requirements laid down in this prospectus. The selection and allocation of disciplines are made by the UET according to merit.
<b>A2</b> [Open Merit Seats (partially-subsidized)]	Only Punjab domiciled candidates, having requisite qualification (other than DAE), can apply for open merit seats under 'A2' category. <b>Tuition fee is partially subsidized.</b>	Submit application to UET Lahore according to the procedure and requirements laid down in this prospectus. The selection and allocation of disciplines are made by the UET according to merit.
<b>A2-M</b> [Open Merit Seats (partially-subsidized)]	Only Punjab domiciled candidates, having Intermediate (Pre-Medical) qualification can apply for open merit seats under 'A1-M' category. <b>Tuition fee is partially subsidized</b>	Submit application to UET Lahore according to the procedure and requirements laid down in this prospectus. The selection and allocation of disciplines are made by the UET according to merit.
<b>B</b> [Sindh]	The candidate should be a bonafide resident of the Sindh province. Diploma holders are also eligible to apply. <b>Tuition fee is subsidized.</b>	Applications are to be submitted to the Registrar of the Mehran University of Engineering and Technology or the Registrar of the N.E.D. University of Engineering and Technology, Karachi. Nominations and allocation of disciplines are sent by the Section Officer (ACD-III) Department of Education, Government of Sindh.
<b>C</b> [Baluchistan]	The candidate should be a bonafide resident of the Baluchistan province. Diploma holders are also eligible to apply.	Applications are to be submitted to the Secretary, Department of Education, Government of Baluchistan. Nominations and allocation of disciplines are made by said Department.
<b>D</b> [KPK]	The candidate should be a bonafide resident of the Khyber Pakhtunkhwa (KPK) province. Diploma holders may also apply. <b>Tuition fee is subsidized.</b>	Applications are to be submitted to the Registrar, University of Engineering & Technology, Peshawar. Nominations and allocations of disciplines are made by the Department of Higher Education, Government of Khyber Pakhtunkhwa.
<b>E1</b> [Azad Kashmir]	The candidate should be national of Azad Kashmir <b>Tuition fee is subsidized.</b>	The applications are to be submitted to the Secretary Nomination Board, Azad Government of the State Jamu & Kashmir, Education Secretariat (Colleges), New Secretariat Chatter, Muzaffarabad Azad Kashmir.
<b>E1</b> [Azad Kashmir (Lipa Valley)]	The candidate should be national of Lipa Valley, Azad Kashmir. <b>Tuition fee is subsidized.</b>	The applications are to be submitted to the Secretary Nomination Board, Government of the State of Azad Jamu & Kashmir, Education Secretariat (Colleges), New Secretariat, Chatter, Muzaffarabad, Azad Kashmir.
<b>E2</b> [Northern Areas]	The candidate should be bonafide resident of Northern Areas (Gilgit-Baltistan) <b>Tuition fee is subsidized.</b>	The applications are to be submitted to the Secretary Nomination Board/Director of Education, Gilgit-Baltistan. Diploma holders are also eligible to apply.
<b>H1</b> [Foreign Countries]	The candidates having foreign nationality can apply under 'H' Category. The applicant is required to get his application sponsored by his own government. Diploma holders may also apply. <b>Tuition fee is subsidized.</b>	The application is sent in triplicate to the Ministry of Finance, Revenue, Economic Affairs, Statistics & Privatization (Economic Affairs Division) Government of Pakistan, Islamabad, through Pakistan's representative accredited to his country. The nominations are sent by the Section Officer

		Finance, Revenue, Economic Affairs, Statistics & Privatization (Economic Affairs Division) Government of Pakistan, Islamabad.
<b>H2</b> [Afghan Nationals]	The candidates should be Afghan nationals. The applicant is required to get his application sponsored by his government. <b>Tuition fee is paid by the sponsor.</b>	The application is sent in triplicate to the Ministry of Inter Provincial Co-ordination, Government of Pakistan, through Pakistan's representative accredited to Afghanistan. The nominations are sent by the Assistant Educational Advisor, Ministry of Inter Provincial Co-ordination, Government of Pakistan, Islamabad.
<b>H3</b> [Indian Held Kashmir]	The candidates from Indian Held Kashmir can also apply under 'H' Category. <b>Tuition fee is paid by the sponsor.</b>	The application is sent in triplicate to the Ministry of Finance, Revenue, Economic Affairs, Statistics & Privatization (Economic Affairs Division) Government of Pakistan, Islamabad through Pakistan's representative accredited to his country. The nominations are sent by the Section Officer Finance, Revenue, Economic Affairs, Statistics & Privatization (Economic Affairs Division) Government of Pakistan, Islamabad.
<b>H4</b> [Cultural Exchange]	The candidates having foreign nationality can apply under 'H' Category. The applicant is required to get his application sponsored by his own government. Diploma holders may also apply. <b>Tuition fee is subsidized.</b>	The application is sent in triplicate to the Ministry of Inter Provincial Coordination Government of Pakistan through Pakistan's representative accredited to his country. The nominations are sent by the Assistant Educational Advisor, Ministry of Inter Provincial Coordination, Government of Pakistan, Islamabad.
<b>I</b> [DAE]	Punjab domiciled candidates, having passed DAE in relevant field, can apply for reserved seats under 'I' category. <b>Tuition fee is subsidized.</b>	Submit application to UET Lahore according to the procedure and requirements laid down in this prospectus. The selection and allocation of disciplines are made by the UET according to merit.
<b>J1</b> [Armed Forces]	The children of commissioned officers/ gazette officials belonging to Army, Air Force or Navy can apply under this category. Diploma holders are also eligible to apply. <b>Tuition fee is partially subsidized.</b>	Applications are submitted to the Headquarters of either the Army, Air Force, or the Navy (depending upon the service to which the parent belongs to) in accordance with the procedure notified by them. Nominations and allocations of disciplines are made by: <ul style="list-style-type: none"> <li>• <b>For Army Seats</b> The Adjutant General, AG'S Branch (W &amp; R Directorate), General Headquarter, Rawalpindi</li> <li>• <b>For Air Force Seats</b> The Deputy Director Education (TRG), Air Headquarter, Peshawar</li> <li>• <b>For Navy Seats</b> The Director, Directorate of Naval Educational Services, Naval Headquarter Islamabad</li> </ul>
<b>J2</b> [Armed Forces]	The children of non-commissioned and junior commissioned officers/ non-gazetted officials belonging to Army, Air Force or Navy can apply under this category. Diploma holders are also eligible to apply. <b>Tuition fee is subsidized.</b>	Applications are submitted to the Headquarters of either the Army, Air Force, or the Navy (depending upon the service to which the parent belongs to) in accordance with the procedure notified by them. Nominations and allocations of disciplines are made by: <ul style="list-style-type: none"> <li>• <b>For Army Seats</b> The Adjutant General, AG'S Branch (W &amp; R Directorate), General Headquarter, Rawalpindi</li> <li>• <b>For Air Force Seats</b> The Deputy Director Education (TRG), Air Headquarter, Peshawar</li> <li>• <b>For Navy Seats</b></li> </ul>

		The Director, Directorate of Naval Educational Services, Naval Headquarter Islamabad
<b>K</b> [FATA]	The applicant should be a bonafide resident of the erstwhile Federally Administered Tribal Areas (FATA). Diploma holders are also eligible to apply.	The applications are submitted to the Secretary, State and Frontier Regions Divisions, Government of Pakistan, Islamabad. Nominations and allocation of disciplines are also made by him.
<b>L</b> [South, Central and North Punjab]	The applicant should be a bonafide resident of any of the following districts: Bahawalnagar, Bahawalpur, Rahim Yar Khan, Rajanpur, Muzaffargarh, Jhang, Attock, Chakwal, Mianwali, Dera Ghazi Khan and Jhelum. <b>Tuition fee is subsidized.</b>	Applications are to be submitted to the UET Lahore according to the procedure and requirements laid down in this prospectus. The selection and allocation of disciplines are made by the University according to merit.
<b>M</b> [UET Employees]	The un-married children of employees of UET Lahore can apply under this category. Diploma holders are also eligible to apply. However, in order to determine relevant merit, Diploma holders will be placed below applicants possessing Intermediate. (Pre-Engineering). For inclusion in this category the applicant's parent has to fulfill the conditions regarding University service given in Form F-V.	Applications are to be submitted to the UET Lahore according to the procedure and requirements laid down in this prospectus. Application should accompany with certificate from the Registrar of the University on Form F-V and a certificate of being unmarried by a class-I gazetted officer or a University class-A officer on Form F-VI. The selection and allocation of disciplines are made by the University according to merit. <b>Note:</b> Children of employees whose services have been transferred to the University of Engineering & Technology Taxila are not eligible to apply under the category as their quota of seats has also been transferred to the University of Engineering & Technology Taxila.
<b>N</b> [Engineers]	The Punjab domiciled children of Engineers, Architects and Town Planners can apply under this category. Diploma holders cannot apply. <b>Tuition fee is partially subsidized.</b>	Applications are to be submitted to the University according to the procedure and requirements laid down in this prospectus. The selection and allocation of disciplines are made by the University according to merit. The applicants should furnish with their applications an attested photocopy of their parent's bachelor's degree in Engineering, Architecture or City & Regional Planning from a recognized University along with PEC/PCATP registration. Other qualifications such as AMIE (Pak) are not recognized for inclusion in this category.
<b>NM</b> [Non Muslim]	Only Punjab domiciled candidates, having requisite qualification (other the DAE), can apply for seats for religious minorities under 'NM' category. <b>Tuition fee is partially subsidized.</b>	Submit applicant to UET Lahore according to the procedure and requirements laid down in this prospectus. The selection and allocation of disciplines are made by the UET according to merit.
<b>O</b> [Alumni]	The Punjab domiciled children of Alumni of UET Lahore can apply under this category. Diploma holders cannot apply. <b>Tuition fee is partially subsidized.</b>	Applications are submitted to the University according to the procedure and requirements. The selection and allocation of discipline is made by the University according to merit. The applicant should furnish with his application an attested photocopy of the PEC/PCATP registration and degree of his parent as an evidence of the fact that he (the parent) is a graduate of this University or its parent institution, that is, the former College of Engineering.
<b>P</b> [B.Tech.]	The applicant should be a bonafide resident of Punjab and should have passed B.Sc. Engineering Technology or equivalent degree from a HEC recognized university of Pakistan. <b>Tuition Fee is subsidized.</b>	Applications are to be submitted to the University according to the procedure and requirements. Selection and allocation of disciplines are made by the University according to merit.



<b>Q</b> [DGK and Rajanpur]	The applicant should be a bonafide resident of the Tribal Areas of D.G. Khan and Rajanpur. Diploma holders are not eligible to apply. <b>Tuition fee is subsidized.</b>	Applications are submitted to the DCO of respective district. Nominations are made by the DCOs on merit.
<b>R</b> [Layyah and Bhakkar]	The applicant should be a bonafide resident of Layyah and Bhakkar districts. <b>Tuition fee is subsidized.</b>	Applications are submitted to the University according to the procedure and requirements laid down in this prospectus. The selection and allocation of disciplines are made by the University according to merit.
<b>S, SI</b> [Overseas]	The children of overseas Pakistanis, having requisite qualification other than DAE, can apply under 'S' category. The children of overseas Pakistanis, having passed DAE, can apply under 'SI' category. Orphan candidates meeting eligibility requirements may be sponsored by their real brother, real maternal or real paternal uncle. <b>Tuition fee is partially subsidized.</b>	Applications are submitted to the University according to the procedure and requirements laid down in this prospectus. The selection and allocation of disciplines are made by the University according to merit. The applicant is required to submit along with his application: i. A certificate on Form F-VIII regarding his parent's employment in a foreign country issued by the Pakistani embassy in that country ii. A photocopy of his parent's resident visa for that country attested by the Pakistani Embassy in that country In case of an orphan applicant applying under this category, following additional documents are required: (1) Father's death certificate Issued by NADRA; (2) Proof of relationship with the guardian in the form of CNIC of all family members and NADRA Family Registration Certificate (FRC) highlighting the Family Tree structure of the applicant; (3) Copy of Nikahnama in case the guardian is the maternal uncle (Mamoo) of the applicant. <i>Scanned / faxed copy of employment certificate and visa shall not be entertained.</i>
<b>SF</b> [Self Finance for Foreign Nationals]	Higher Education Commission (HEC), Islamabad, Self Finance Scheme for Foreign Nationals. <b>Tuition Fee is partially subsidized.</b>	Applications are received at HEC, Islamabad, by Director (Academics), HEC, H-9, Islamabad, Pakistan. Information is available on HEC website www.hec.gov.pk. Selected candidates are nominated by the Higher Education Commission of Pakistan.
<b>T</b> [Disabled]	Punjab domiciled disabled candidates, excluding the disability of deafness, dumbness and blindness, can apply under this category.	Applications, along with a medical certificate mentioning the disability, are submitted to the UET Lahore according to the procedure and requirements laid down in this prospectus. The selection and allocation of disciplines are made by the University according to merit.
<b>U1</b> [Bal-FATA]	These seats are for students of Baluchistan, under project provision of "Higher Education Opportunities for Students of FATA and Baluchistan".	Applications are received by Project Director (BAL-FATA Project), Higher Education Commission, H-9, Islamabad. Selected candidates are nominated by the Higher Education Commission of Pakistan.
<b>U2</b> [Bal-FATA]	These seats are for students of FATA, under project provision of "Higher Education Opportunities for Students of FATA and Baluchistan".	Applications are received by Project Director (BAL-FATA Project), Higher Education Commission, H-9, Islamabad. Selected candidates are nominated by the Higher Education Commission of Pakistan.

Applications will be received on-line. Candidates are not required to submit any document or visit the university. However, officials will be available to provide guidance to candidates, if they so require.

## APPLICATION FILLING AND SUBMISSION

### 1. CORRECTNESS OF INFORMATION ON THE APPLICATION FORM

It is your responsibility to enter correct information while filling the on-line application. In case of deliberate concealment of information or misinformation, admission, if offered, will be liable to be cancelled and the candidate will be placed in the HEC blacklist through public notification and will become ineligible to apply in any HEC institution.

### 2. DATA ENTRY BY CANDIDATES SEEKING ADMISSION IN BBA, BBIT

Candidates seeking admission in BBA and BBIT and who have not appeared in the Combined Entry Test, will choose the button of BBA/ BBIT Applicant on the admission portal at <https://admission.uet.edu.pk>. They will then be asked to fill in their personal information. On completing the personal information, they will be asked to upload their photograph (Picture format JPG, PNG, Max File up to 1.0 MB). After uploading their picture, they will press the submit button. On successful submission, they will receive an e-mail at their e-mail address giving them their Roll number.

#### 2.1 Purchasing Prospectus for Admission Code

Admission Code is available on the inside of the back-title cover of the prospectus. This code is valid for only one on-line admission application submission.

#### 2.2 Getting the Admission Code On-line

In case you have NOT purchased the prospectus, you may get the Admission Code on-line by:

- a) Login to the admission portal <https://admission.uet.edu.pk>
- b) Select “**Generate UG Admission Challan**” button on the admission portal.
- c) You will be asked to enter your name, father's name and CNIC number.
- d) A challan number will be generated. You may pay the application fee using this number on-line using one of the following options:

##### 1. Payment through HBL/ Konnect APP.

- i. Login to the Konnect mobile application and tap the “**LIFESTYLE**” button.
- ii. Select “**EDUCATION**” option.
- iii. Tap on “**SCHOOL FEE**”.
- iv. A list of institutions will appear. Select **UET Lahore** and enter Challan Number.
- v. After verifying your name, make the payment.
- vi. Now you may use this paid Challan Number as your Admission Code.

##### 2. Payment through HBL On-line Banking (For HBL Account Holders only)

- i. Login to the HBL on-line banking application on your computer or mobile if you have access to a HBL account.
- ii. Select “**MORE**” option.
- iii. Select “**EDUCATION**” under Bill Payment category.
- iv. A list of institutions will appear. Select **UET Lahore** and enter Challan Number.
- v. After verifying your name, make the payment.
- vi. Now you may use this paid Challan Number as your Admission Code.

**Note:** Paid Challan number may be used to get your copy of the prospectus from UET Students Section/ Admission Office at your convenience.

### 3. INSTRUCTIONS FOR FILLING THE ONLINE APPLICATION FORM

- a) You will fill the admission application form by logging into <https://admission.uet.edu.pk>

- b) You will be asked to enter the following information:
- Entry Test Roll Number
  - Date of Birth
  - CNIC Number
  - Verification Code
- c) On the next screen, you will see your personal information, which you entered while submitting the Entry Test Form.
- d) In case you are applying based on Intermediate examination, you will be required to:
- i. Enter the name of Board of Intermediate and Secondary Education (BISE) and your registration number in Intermediate examination.
  - ii. Enter your obtained and total marks in Intermediate examination.
- e) In case you are applying based on DAE examination, you will be required to:
- i. Enter the name of Board of Technical Education and your registration number in DAE examination.
  - ii. Enter the name of your diploma.
  - iii. Enter your obtained and total marks in DAE.
- f) In case you are applying based on “A” level or equivalent foreign examination, you will be required to:
- i. Enter your candidate number in the “A” level examination.
  - ii. Enter the IBCC equivalence certificate number and date issued (if available).
  - iii. Enter your obtained and total marks as indicated on the IBCC equivalent certificate.
  - iv. If you do not have an IBCC equivalence certificate, you may visit the IBCC website and enter the marks according to IBCC formulas. Kindly note that original IBCC equivalence certificate will be required from admitted candidates.
- g) In case you are applying based on B.Sc. Engineering Technology or equivalent qualification, you will be required to:
- i. Enter the name of your degree, name of the university and university registration number.
  - ii. Enter your obtained and total CGPA. If you have earned percentage marks, you may enter the obtained and total marks.
- h) Next you will be asked if you are claiming to be a hafiz-e-qura'an or a sportsperson. In case you claim to be one or both, separate admit cards for Hafiz-e-qura'an and sports person tests will be available to you for printing. You will report for the said tests on the dates and locations printed on the admit cards.
- i) Next you will choose your preferences for programs/ disciplines, campuses and categories.
- j) Utmost care must be exercised while giving preferences. The following aspects must be kept in mind while filling the preferences:
- Preferences of disciplines, campuses and categories once chosen and submitted cannot be changed. Ineligible category will result in cancellation of the application.
  - No request for freezing by a candidate, admitted in the lower preference discipline, would be entertained. The candidate will continue to be considered for movement into his/her higher preference in subsequent merit lists.
  - Candidates must note that after the display of merit list, no application would be entertained for moving to a lower merit preference. Applications for moving into lower merit preference would only be accepted on-line from admitted candidates only, after the last merit list as per announced schedule.
- k) Muslim candidates will be asked to click the check box on the Finality of Prophethood declaration form.
- l) You will scan and upload the following documents:
- Applicable result on the basis of which you are applying, that is, Intermediate final result card; or DAE final result card; or “A” level/ IBCC equivalent result; or B.Tech. or equivalent transcript.
  - Domicile certificate.
- m) Once your application is complete, you will be asked to submit it. After submission, your application is final and submitted in university's records. You may print a copy for your own record.

## PROCEDURE FOR THE SELECTED CANDIDATES

### 1. NOTIFICATION OF SELECTION

A list of selected candidates will be put up on the University notice boards and on the UET web site <https://admission.uet.edu.pk> as well. Kindly note that no written offer letter would be dispatched to selected candidates. It is responsibility of the candidate to remain abreast with the status of admissions as available on the website and on the notice boards.

#### IMPORTANT:

#### a) **Consideration in the Next Merit lists**

Admissions are granted on merit and according to preferences given by the applicants. An applicant who secures admission in a discipline of his lower preference and he desires to be considered in next merit lists, **must** submit all the dues and documents. If he fails to do so, his name would be excluded from any future merit lists and his admission would be cancelled.

#### b) **Admission made as a result of an error, omission or mistake shall not confer any right on an applicant.**

### 2. DEPOSITING OF DUES AND DOCUMENTS

Within the prescribed time, a selected candidate is required to pay the University dues and submit the following documents in a manner prescribed on the website <https://admission.uet.edu.pk> to the Deputy Registrar, Students Section:

- Paid Original Bank Challan as proof of payment of dues. On-line payment facility is available through Habib Bank Limited (HBL) internet banking/ Mobile application, HBL Konnect and ATMs. Candidate must keep photocopies of this challan/ proof of payment for his/her own record and for submission to the department.
- One set of photocopies of each educational document including domicile.
- Original applicable certificates and degree, like Matric/"O"-Level, Intermediate./ "A"-Level, Diploma of Associate Engineer (DAE), B.Sc. Engineering Technology or any equivalent qualifications.
- Six copies of the most recent passport size photograph
- Two copies of CNIC/ "B" Form.
- Bio-data card Form-I duly completed in all respects.
- Medical Certificate Form-II duly signed and stamped by Medical Practitioner registered with PMC.
- Duly attested Current Income certificate of the parent/ guardian.
- Undertaking (Sample Form –VII) on a Rs. 100/- judicial paper duly completed.

#### 2.1 Additional Documents for Specific Categories

Category M	Original certificate from the Registrar of the UET Lahore on prescribed Form-V and an undertaking of being unmarried on Form-VI
Category N	Attested photocopy of the relevant degree and PEC/PCATP registration of applicant's father or mother
Category O	Attested photocopy of the degree issued by UET Lahore and PEC/PCATP registration of applicant's father or mother
Category S & SI	Original certificate on prescribed Form F-VIII regarding parent's employment in a foreign country and a photocopy of his resident visa attested by the Pakistan embassy in that country. In case of an orphan applicant applying under this category, following additional documents are required: (1) Father's death certificate issued by NADRA; (2) Proof of relationship with the guardian in the form of CNIC of all family members and NADRA Family Registration Certificate (FRC) highlighting the Family Tree structure of the applicant; (3) Copy of Nikahnama in case the guardian is the maternal uncle (Mamoo) of the applicant. Scanned / faxed copy of employment certificate and visa shall not be entertained.

## 2.2 For Punjab Domiciled Applicants Who Possess Qualifications from Outside Punjab

Applicants for categories A1, A2, L, N, Q & R who have passed both the Secondary School Examination and the Higher Secondary School Examination from any Board of Intermediate and Secondary Education, not included in the Punjab province or Federal Capital Areas, Islamabad; Or, applicants for category I who passed their Diploma of Associate Engineer from a Board of Technical Education other than that of Punjab; Or, applicants for category P who have passed their B.Sc. Engineering Technology or equivalent degree other than the University of Engineering and Technology, Lahore, are required to submit the additional documents as prescribed below:

### a) Children of Government Servants

If the parent of the applicant is a government servant who belongs to Punjab but is serving in any other province of Pakistan, then the parent should produce a certificate on Form -V from the head of his Department affirming that he is a permanent resident of the Punjab. It shall be necessary in such cases that the period of the applicant's study corresponds with the period of the posting of the parent in that province.

### b) Children of the Armed Forces Personnel

In addition to the seats reserved for the category J, the children of the Armed Forces Personnel can apply for admission on basis of merit against seats reserved for their province of domicile or the seats reserved for the province in which their parent (the member of the Armed Forces) is posted. Thus, an applicant who is domiciled in Sindh but his parent is posted in Punjab can apply against seats reserved for Sindh or against seats reserved for Punjab. However, if he applies under category A1 or A2, he has to submit with his application a certificate from the GOC of the area regarding the place of his parent's posting.

### c) All other applicants must submit the following additional documents

- i. An attested Photocopy of father's/mother's domicile certificate of the Punjab Province or the Federal Capital area, Islamabad
- ii. Documentary proof in the form of a certificate on Form -VI from the election officer of concerned area of the Punjab Province/Federal Capital Area, Islamabad to the effect that name of the applicant's father/mother appears in the electoral rolls
- iii. An attested photocopy of the relevant page of the electoral rolls on which the name of the father/mother of the applicant appears
- iv. An attested photocopy of the identity card of the applicant's father/mother

### d) Applicant whose father is not alive

In case his father is not alive, and the above documents cannot be produced, the applicant should submit:

- i. Documentary proof of his father's death
- ii. Documentary evidence of his parent's immovable property in Punjab or Federal Capital Area, Islamabad

## 1. RELAXATION IN TIME LIMIT

If a selected candidate is prevented by unavoidable circumstances from timely fulfillment of the requirements laid down in the above clause, then he should intimate the Convener Admission Committee about it within the prescribed time limit along with relevant documentary proof. The Convener, Admission Committee may, at his discretion, grant relaxation in the time limit.

## 2. FORFEITURE OF RIGHT OF ADMISSION

A selected candidate who fails to fulfill the requirements laid down in the above clause within the prescribed time-limit shall forfeit his right of admission.

## 3. PROVISIONAL ADMISSION

On fulfillment of the obligations mentioned in the above clause a selected candidate will be admitted to the University. This admission shall, however, be provisional until all the original degrees or certificates submitted by him have been checked for their veracity. In case any document proves to be false, fake, or fabricated at a later stage, a provisionally admitted student shall be liable to expulsion from the University and to any other disciplinary or legal action the University may deem fit. Moreover, all the fees and charges deposited by him shall stand forfeited in favour of the University.

**4. WARNING**

IF AT ANY STAGE, A STUDENT IS FOUND INDULGING IN POLITICS, HIS ADMISSION WILL BE CANCELLED AS REFERRED TO IN UNDERTAKING FORM -VII.

**5. DEADLINE FOR ADMISSION**

Admission shall be closed after the expiry of thirty days from the commencement or registration of the first-year class.

**Note:** Applicable to all the candidates who apply for admission on "merit" as well as under "reserved" seats

**6. NOTIFICATION OF SELECTION OF CATEGORIES B, C, D, E1, E2, H1, H2, H3, H4, J1, J2, K, Q, U1 & U2**

The applicants for the seats reserved for these categories will be informed about selections by the authorities responsible for their selection. After that the University will issue them call letters with a target date to report in the Students Section to complete the remaining admission formalities within the stipulated time.

**7. HOSTEL ACCOMMODATION**

- a) Hostel accommodation is limited and is provided on the basis of merit. Local students are not eligible to apply.
- b) The selectees for Lahore Campus may apply to Senior Warden, University of Engineering and Technology, Lahore for hostel accommodation on prescribed application form obtainable from Senior Warden's office, along with the following documents:
  - Two attested photographs
  - An attested photocopy of the domicile certificate; and
  - Attested photocopy of Bank Challan from the Habib Bank (Engineering University Branch).
- c) The candidate selected for admission at Kala Shah Kaku campus, Faisalabad Campus and Narowal Campus should apply to Hostel Warden of the respective campus for hostel accommodation.
- d) For hostel accommodation at Rachna College of Engineering and Technology, candidate should apply to Hostel Warden of Rachna College of Engineering and Technology, Gujranwala.

**NOTE:** IT IS NOT A RIGHT/PRIVILEGE OF STUDENT TO GET HOSTEL ACCOMMODATION. IT IS SOLELY AT THE DISCRETION OF THE UNIVERSITY TO OFFER A PLACE IN A HOSTEL. A STUDENT INVOLVED IN ANY ACT OF MISCONDUCT, ILL DISCIPLINE, VIOLATION OF RULES AND INVOLVEMENT IN ANY POLITICAL ACTIVITY SHALL BE INELIGIBLE FOR HOSTEL ACCOMMODATION.

LAHORE CAMPUS





Faculty of  
**Electrical Engineering**





## DEPARTMENT OF ELECTRICAL ENGINEERING

### Dean

Prof. Dr. Muhammad Kamran

### Chairman

Prof. Dr. Muhammad Tahir

### Professors

Dr. Muhammad Imran Sheikh  
Dr. Muhammad Asghar Saqib  
Dr. Kashif Javed

### Associate Professors

Dr. Asim Loan  
Dr. Irfanullah Chaudhary  
Dr. Umar Tabrez Shami

Dr. Syed Abdul Rahman Kashif  
Dr. Farhan Mahmood  
Dr. Rabia Nazir  
Dr. Haq Nawaz

### Assistant Professors

Dr. Ahsan Tahir  
Dr. Nauman Ahmed  
Dr. Syed Shah Irfan Hussain  
Mr. Naveed Nawaz  
Mr. Arslan Abdul Rahim  
Dr. Omer Lateef  
Mr. Muhammad Bilal  
Dr. Ubaid Ullah Fayyaz  
Dr. Adeem Aslam

Dr. Awais Yousaf  
Dr. Hasan Erteza Gelani

### Lecturers

Mr. Muhammad Anique Aslam  
Mr. Muhammad Salman Fakhar  
Ms. Noor ul Ain  
Mr. Suleman Sami Qazi  
Mr. Omar Imtiaz  
Mr. Muhammad Ali Shafiq  
Mr. Umar Shahid  
Ms. Tehrina Ismail  
Ms. Aqsa Ahmad  
Mr. Rehan Naeem  
Mr. Khalid Butt

The Department was established in 1923 as a part of the Maclagan Engineering College. Currently, it has a total student enrollment of about 1100 including both graduate and undergraduate students.

## Mission

To ensure understanding and application of electrical engineering fundamentals by inculcating analysis and design skills for betterment of humanity and to become a centre of excellence in the field electrical engineering.

## Program Educational Objectives (PEOs)

- PEO-01:** Graduates will be able to opt a range of careers as manufacturing engineers, services engineers and entrepreneurs.  
**PEO-02:** Graduates will be able to be a part of international academia as students and researchers.  
**PEO-03:** Graduates will demonstrate higher standards of moral and ethical values.  
**PEO-04:** Graduates will be able to lead their teams, departments and organizations.

## Courses of Study

The Department offers the following programs:

- a) B. Sc. Electrical Engineering
- b) M. Sc. Electrical Engineering with the following specializations:
  - Computer
  - Electronics and Communications
  - Power Systems
- c) M. Sc. Telecommunication Networks
- d) Ph.D. Electrical Engineering

The bachelor's degree curriculum provides exposure to basic knowledge in Physics and Mathematics followed by an intensive coverage of the principles of Electrical Engineering both in classrooms and Laboratories. To stimulate their imaginations, students are assigned projects at appropriate stages. Furthermore, the curriculum is regularly revised to cater for the contemporary needs of the field of engineering. In order to reinforce the liaison between industry and academia, a final year project exhibition is held every year to provide the students with an opportunity to manifest their technical acumen. Internships in the local industry provide the students with hands on experience in industrial equipment. The technical ideas.

## Laboratories and other Facilities

The Department has the following well-equipped Laboratories:

- |  |                                     |
|--|-------------------------------------|
| ● Analog and Digital Electronics               | ● Applied Electricity               |
| ● Basic Electrical Engineering                 | ● Communication Systems             |
| ● Computer Networking                          | ● Computer Systems                  |
| ● Control Systems                              | ● Digital Signal Processing         |
| ● High Voltage Engineering                     | ● Industrial and Power Electronics  |
| ● Microcomputer/Microcontroller Interfacing    | ● Microwave Engineering             |
| ● PCB Manufacturing, SMD placing and soldering | ● Power Systems                     |
| ● Project Design                               | ● SUPCON Automation                 |
| ● Electrical Machines                          | ● ZTE –UET Telecommunication Center |

Department has highly qualified and experienced faculty with most of the Ph.D. faculty members qualified from reputed national and international universities. Research work being carried out at the Department, has direct bearing on the needs of national industry. Faculty members and postgraduate students are engaged in research and publish papers in national and international journals and conferences. Many faculty members have won research grants from HEC and ICT R&D funds.

The Department also organizes seminars and workshops frequently in various areas of electrical, electronics, computer, and control engineering. Faculty members and prominent researchers from home and abroad deliver these seminars.

## B.Sc. Electrical Engineering

**Semester 1**

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHY 123	Mechanics and Wave Motion	3	1
ME 238	Thermodynamics	2	1
IS 101	Islamic and Pakistan Studies/Ethics	3	0
MA 123	Calculus	3	0
EE 132	Introduction to Computing and Data Science	3	1
HU 111	Communication Skills	0	1

**Semester 3**

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
EE 110	Circuit Analysis and Design	3	1
EE 250	Electric Machinery Fundamentals	3	1
HU 221	Technical Writing and Presentation Skills	3	0
MA 234	Linear Algebra	3	0
EE 233	Discrete Mathematics	2	0
ME 100L	Workshop Practice	0	1

**Semester 5**

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
EE 273	Microprocessor Systems	3	1
EE 356	Power Transmission, Distribution and Utilization	3	0
EE 322	Analog and Digital Communications	3	1
EE 384	Electromagnetics and Its Applications	3	0
XYZ	Non-Engineering Elective	3	0

**Semester 7**

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
EE 453/EE 432	Power System Operation and Control/Computer Networks	3	1
EE 454/EE 476	Power System Protection/Introduction to VLSI Systems	3	1
IS 201	Islamic and Pakistan Studies-II/Ethics	3	0
MGT	Management Elective I	3	0
EE 499a	Project (Phase-I)	0	3

**Semester 2**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHY 132	Electricity and Magnetism	3	1
MA 224	Multivariate Calculus	3	0
EE 100	Electric Circuits	3	1
EE 133	Programming Fundamentals	3	1
EE 101	Electrical and Electronics Workshop	0	1
MA 229	Ordinary Differential Equations	2	0

**Semester 4**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
EE 216	Electronic Devices and Circuits	3	1
EE 220	Signals and Systems	3	0
EE 272	Digital Systems	3	1
EE 302	Applied Probability	3	0
EE 234	Data Structures and Algorithms	2	1
HU 1XX	International Language	0	1

**Semester 6**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
EE 312/EE 439	Power Electronics*/Introduction to Machine Learning	3	1
EE 451/EE 384	Power System Analysis and Design/Digital Signal Processing	3	0
EE 452/EE 475/EE 486	Renewable Electrical Energy Systems/Computer Architecture*/Microwave and Antenna Engineering*	3	0
EE 340	Control Systems	2	1
MGT 428	Professional Ethics	0	1

**Semester 8**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
EE 450/EE 431/EE 411	Power Electronics*/Introduction to Machine Learning Power System Analysis and Design/Digital Signal Processing	3	1
EE 456/EE 425/EE 414	Renewable Electrical Energy Systems/Computer Architecture*/Microwave and Antenna Engineering*	3	0
MGT	Control Systems	3	0
EE 499b	Professional Ethics	0	3



## DEPARTMENT OF COMPUTER SCIENCE

### Dean

Prof. Dr. Muhammad Kamran

### Chairman

Prof. Dr. Muhammad Shoaib

### Professor

Prof. Dr. Shazia Arshad

### Associate Professors

Dr. Muhammad Aslam  
 Dr. Usman Ghani Khan  
 Dr. Muhammad Junaid Arshad  
 Dr. Tauqir Ahmad  
 Dr. Amjad Farooq

### Assistant Professors

Dr. Talha Waheed  
 Dr. Syed Khaldoon Khurshid

Dr. Muhammad Awais Hassan

Dr. Sheikh Faisal Rashid  
 Dr. Amna Zafar  
 Dr. Sadaf Hina

### Lecturers

Mr. Atif Hussain  
 Mr. Samyan Wahla  
 Ms. Farheen Ramzan

### Introduction

The Department of Computer Science is one of the most prominent and oldest centers of computer education in the country. Its history dates back to the year 1968 when UET Lahore established a Computer Center under the supervision of Department of Mathematics. The center was equipped with a contemporary IBM 1130 third generation batch processing system that was equipped with a disk and a monitor. The center was responsible for teaching of courses in Computer Science and Numerical Analysis, which formed an integral part of the curricula for all disciplines of B.Sc. Engineering degrees offered by UET. The center also offered short term computer courses for private and public sector organizations. A Bachelor degree program in computer science center was started in 1976. In 1978, the course was upgraded to M.Sc. Computer Science degree that makes the Department the first center in the country to offer graduate program in computer science. The center became an independent department of Computer Science in 1991. The Department holds an

endowment chair given by His Majesty Sultan Qaboos Bin Said-Al-Said, Sultan of Oman.

### Mission

To impart high quality computing education to the students in order to develop critical thinking, analytical skills and abilities to solve real-world problems for the technological and socio-economic development.

### Degree Program

A four years degree program leading towards a B.Sc. (Hons) Computer Science was introduced by the Department in 1999. For students enrolling from September 2003 onwards, B.Sc. program has been renamed and modified into four years B.Sc. Computer Science (CS) program. The B.Sc. CS program is accredited by National Computing Education Accreditation Council (NCEAC). A minimum of 135 credit hours are required for the completion of the program.

### Program Educational Objectives (PEOs)

- PEO-01:** Graduates demonstrate theoretical and practical knowledge and skills of computer science to solve real-world complex problems.
- PEO-02:** Graduates demonstrate professionalism, leadership qualities and engage in continuous learning of new developments in diverse fields of computing.
- PEO-03:** Graduates communicate effectively, work in a multidisciplinary team environment and exhibit an awareness of the professional and social responsibility by making an impact on the society in an ethical manner.

The Department launched M.S. Computer science program in 2003, whereas a Ph.D. program in Computer Science was launched in 2002.

### Facilities

With expansion in academic programs, there are four computer laboratories in the Department. These laboratories are equipped with 160 latest fully networked computers with state of the art servers. In addition, the Department has an FYP Lab. Computer to student ratio is 1:1. The Department is proud of its no-piracy policy. All the operating systems installed are either licensed or open-source operating systems.

Department's computing facilities are linked with UET Research Center, Main Library and other teaching departments through a fiber optic backbone. Multimedia projectors are fitted where required in the class rooms and high speed internet facility is available in all laboratories. Department's class rooms are located in a purposely built adjacent building known as New Lecture Theaters.



**Semester 1**

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-161	Programming Fundamentals	3	1
CS-102	Introduction to Computing	3	1
HU-102	Functional English	3	0
MA-123	Calculus	3	0
PHY-111	Applied Physics	2	1
ME-100L	Workshop Practice	0	1

**Semester 3**

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-261	Data Structures and Algorithms (CS-162)	3	1
HU-221	Technical writing and Presentation Skills (CMPE-222)	3	0
CS-271	Computer Organization and Assembly Language	3	1
MA-234	Linear Algebra	3	0
CS-261	Discrete Mathematics	3	0

**Semester 5**

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-364	Information Security (CS-261)	3	0
CS-371	Artificial Intelligence (CS-261)	3	1
CS-301	Professional Practices in Software Development	3	0
CS-39x	Computer Science Elective-1	3	0
CS-165	Software Engineering	3	1

**Semester 7**

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-465	Final Year Project-I	0	3
CS-471	Compiler Construction (CS-273)	3	1
CS-49x	Computer Science Elective-4	3	0
IS-101	Islamic & Pakistan Studies-I	3	0
CS-49x	Computer Science Elective-5	3	0

**Semester 2**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-162	Object Oriented Programming (CS-161)	3	1
CMPE-222	Digital Logic Design (PHY-111)	3	1
HU-240	Psychology	3	0
HU-111	Communication Skills (Lab)	0	1
LMA-224	Multi-Variable Calculus (MA-123)	3	0
MA-343	Applied Probability & Statistics	3	0
IS-XXX	Translation of the Holy Quran	1	0

**Semester 4**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-262	Database Systems (CS-261)	3	1
CS-263	Operating Systems (CS-261)	3	1
MA-228	Differential Equations (MA-224)	3	0
CS-272	Design and Analysis of Algorithms (CS-261)	3	0
CS-273	Theory of Automata (CS-261)	3	0
IS-XXX	Translation of the Holy Quran	1	0

**Semester 6**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-373	Computer Networks (CS-263)	3	1
CS-39x	Computer Science Elective-2	3	0
CS-39x	Computer Science Elective-3	3	0
CS-380	Graph Theory (CS-261)	3	0
CS-372	Parallel and Distributed Computing (CS-263)	3	0
IS-XXX	Translation of the Holy Quran	1	0

**Semester 8**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-466	Final Year Project-II (CS-465)	0	3
MGT-414	Entrepreneurship & Business Management	3	0
IS-201	Islamic & Pakistan Studies-II	3	0
HU-XXX	International Language	0	0
MGT-424	Leadership Strategies	3	0
IS-XXX	Translation of the Holy Quran	1	0

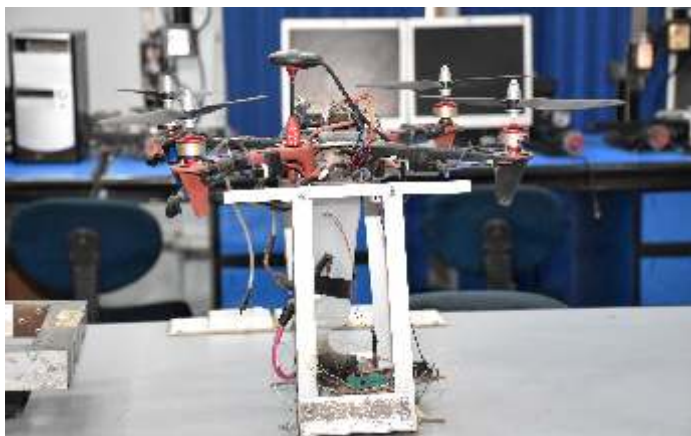


**Elective Courses**

Course No.	Subject
CS-381	Computer Architecture
CS-481	Real Time Systems
CS-382	Operations Research
CS-383	Simulation and Modelling
CS-384	Introduction to Data Science
CS-385	Internet of Things
CS-482	Big Data Analytics
CS-483	Cloud Computing
CS-386	Database Administration
CS-387	Database Performance & Optimization
CS-388	Database Backup & Recovery
CS-389	Distributed Databases
CS-484	Data Warehousing
CS-581	Graph Databases
CS-582	Web semantics
CS-351	Computer Graphics
CS-485	Computer Vision and Image Processing
SE-325	UX/UI Design
SE-221	Human Computer Interaction
CS-487	Ethical Hacking
CS-353	Management Information Systems
CS-488	Information Retrieval
CS-354	Natural Language Processing
CS-355	Data Mining
CS-489	Machine Learning

**Elective Courses**

Course No.	Subject
CS-490	Soft Computing
CS-491	Wireless Networks
CS-492	Internetworking with Unix TCP/IP
CS-390	System Programming
CS-391	Web Technologies
CS-392	Game Development
CS-393	Open Source Software Development
CS-493	Enterprise Application Development
CS-394	Mobile Application Development
CS-494	E-Commerce
CS-395	Introduction to Programming Languages
CS-396	Object Oriented Analysis and Design
CS-397	Design Patterns
CS-495	Software Design & Architecture
SE-211	Software Requirements Engineering
SE-331	Software Quality Engineering
SE-332	Software Measurement & Metrics
CS-497	Intro to Program Analysis
CS-498	Formal Methods
SE-442	Software Re-Engineering
SE-441	Software Project Management
CS-583	Leading Software Teams
CS-584	Habits of Highly Effective Software Engineer
CS-585	Personal, Team and Executive Software Processes
CS-586	Logical Paradigms of Computing





## DEPARTMENT OF COMPUTER ENGINEERING

### Dean

Prof. Dr. Habib-ur-Rehman

### Chairman

Dr. Ali Hammad Akbar

### Professors

Prof. Dr. Muhammad Shahbaz

### Associate Professors

Dr. Yasir Saleem

Dr. Muhammad Faisal Hayat

### Assistant Professors

Dr. Tania Habib

Dr. Asim Rehmat

Dr. Fareed Ud Din Mehmood Jafri

Dr. Beenish Ayesha Akram

Ms. Hina Khalid

Ms. Ayesha Shafqat

### Lecturers

Ms. Sahar Waqar

### Teaching Fellow

Mr. Mudasir Dilawar

Mr. Raja Muzammil Muneer

Ms. Bakhtawar Bint Amjad

### Introduction

The University of Engineering and Technology Lahore (UET) is the pioneer institute that started computing education at the undergraduate level in the country. A four years degree program as B.Sc. (Hons) in Computer Science and Engineering was initiated in 2001. For students enrolling from September 2003 onwards, this B.Sc. program was renamed and modified into four years B.Sc. Computer Engineering (CE) program. CE program is accredited by Pakistan Engineering Council (PEC) since its inception till date. The CE department was established as a separate entity in 2020.

Our graduates are employed in international organizations such as Microsoft Bing, Google, Amazon, ORACLE, IBM and SalesForce. Our graduates have a good job market share in local industry such as Techlogix, Powersoft19, Netsol, I2C, Xavor, Mentor Graphics, I2C, Systems etc. Many of them are entrepreneurs of organization at National and International levels.

## Mission

To disseminate computing education emphasizing entrepreneurship and ethical standards while encouraging the students to familiarize with latest developments in research, tools and processes and use their skills to identify and find solution to society's problems.

## Programs

### Undergraduate Program

- B.Sc. Computer Engineering

### Postgraduate Programs

- a) M.Sc. Computer Engineering
- b) Ph.D. Computer Engineering

## Program Educational Objectives (PEOs)

**PEO-01:** Graduates will be able to excel in careers with enhancement in their knowledge and skills as researchers, system engineers, services engineers and entrepreneurs.

**PEO-02:** Graduates will be effective in society and diverse professional environments maintaining high standards of ethics.

**PEO-03:** Graduates will be able to communicate effectively, demonstrate leadership qualities and professional integrity.

## Laboratories:

- Industrial Automation
- Embedded Systems Design
- Electronics Systems
- Computer
- Project
- Postgraduate research



## B.Sc. Computer Engineering

<b>Semester 1</b>		<b>Year 1</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHY-123	Mechanics and Waves Motion	3	1
HU-102	Functional English	3	0
ME-100	Workshop Practice	0	1
LIS-101	Islamic & Pakistan Studies-I	3	0
MA-123	Calculus - Single Variable	3	0
CMPE-111	Introduction to Computing	3	1
QT-101	Translation of the Holy Quran-I	1	0

<b>Semester 3</b>		<b>Year 2</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CMPE-221	Circuits and Electronic Devices	3	1
CMPE-222	Digital Logic Design	3	1
HU-111	Communication Skills	0	1
LCMPE-211	Object Oriented Programming	3	1
CMPE-251	Discrete Mathematical Structures	3	0
QT-201	Translation of the Holy Quran-II	1	0

<b>Semester 5</b>		<b>Year 3</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
HU-221	Technical Writing and Presentation Skills	3	0
CMPE-331	Operating Systems	3	1
CMPE-311	Software Engineering	3	1
CMPE-341	Artificial Intelligence	3	1
CMPE-332	Database Systems	3	1

<b>Semester 7</b>		<b>Year 4</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MGT-414	Entrepreneurship and Business Management	3	0
CMPE-421	Computer Architecture	2	1
CMPE-491	Final Year Project I	0	3
CMPE-4XX	Computer Engineering Elective	3	0
CMPE-4XX	Computer Engineering Elective	3	0

<b>Semester 2</b>			
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHY-132	Electricity and Magnetism	3	1
MA-224	Multivariate Calculus	3	0
CMPE-121	Circuit Analysis	3	1
MA-229	Ordinary Differential Equations	2	0
CMPE-112	Fundamentals of Programming & Data Science	3	1
HU-XXX	International Language	0	0

<b>Semester 4</b>			
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MA-234	Linear Algebra	3	0
CMPE-271	Signals and Systems	3	0
CMPE-223	Computer Organization	3	1
CMPE-252	Probability and Random Variables	3	0
CMPE-212	Data Structures and Algorithms	3	1

<b>Semester 6</b>			
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MGT-410	Project Management	3	0
CMPE-333	Computer Networks	3	1
CMPE-371	Digital Signal Processing	3	1
CMPE-321	Embedded Systems	3	1
IME-262	Machine Design & CAD	3	1
QT-301	Translation of the Holy Quran-III	1	0

<b>Semester 8</b>			
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
IS-201	Islamic & Pakistan Studies-II	3	0
CMPE-492	Final Year Project II	0	3
CMPE-4XX	Computer Engineering Elective III	3	0
CMPE-4XX	Computer Engineering Elective IV	3	0
QT-401	Translation of the Holy Quran-IV	1	0

Faculty of  
Mechanical Engineering





# MECHANICAL

## DEPARTMENT OF MECHANICAL ENGINEERING

### Dean:

Prof. Dr. Nadeem Ahmad Mufti

### Chairman:

Prof. Dr. Nasir Hayat

### Professors:

Prof. Dr. Tauseef Aized  
Prof. Dr. Asad Naeem Shah  
Prof. Dr. Asif Mahmood Qureshi  
Prof. Dr. Amjad Hussain  
Prof. Dr. Ghulam Moeen-ud-Din

### Associate Professor

Dr. Ali Hussain Kazim  
Dr. Muhammad Asim

Dr. Awais Ahmad Khan

Dr. Muhammad Mahmood Aslam Bhutta

Dr. Muhammad Usman

Dr. Hassan Ali

### Assistant Professor

Mr. Azfar Kaleem

Dr. Naseer Ahmad

Mr. Shabbir Hussain

Mr. Muhammad Rashid Sajid

Mr. Muhammad Kashif Tariq

Mr. Umair Ashraf Khokhar

Mr. Hafiz Zahid Nabi

Mr. Ahmad Naveed

Mr. Syed Saqib

Dr. Jawad Sarwar

Dr. Jamal Umer

Dr. Muhammad Wajid Saleem

Dr. Jafar Hussain

Dr. Hasan Izhar Khan

### Lecturers

Dr. Zia-ur-Rehman Tahir

Mrs. Rabbia Sehar

Syed Wasim Hassan Zubair

Mr. Muhammad Waqas Rafique

Dr. Muhammad Zubair Sheikh

Dr. Muhammad Waqar Nasir

Mr. Muhammad Jawad

The Department of Mechanical Engineering is as old as the institution itself. The programs offered/being planned, are as below:

- |  |   |
|--|---|
| a) B.Sc. Mechanical Engineering        | b) B.Sc. Automotive Engineering               |
| c) M.Sc. Mechanical Design Engineering | d) M.Sc. Thermal Power Engineering            |
| e) M.Sc. Automotive Engineering        | f) M.Sc. Renewable Energy Systems Engineering |
| g) Ph.D. Mechanical Engineering        |   |

### Mission

To produce mechanical engineers, equipped with knowledge and skills to carry on lifelong learning, through quality teaching and training. Our graduates shall be able to serve for the sustainable development of the society while demonstrating professional ethics and responsible social conduct.

### Program Educational Objectives (PEOs)

- PEO-01:** Apply the knowledge to solve analytical and practical mechanical engineering problems. (Engineering Capabilities)
- PEO-02:** Work for continuous professional and sustainable socio-technical development. (Societal Development and Lifelong Learning)
- PEO-03:** Demonstrate professional ethics, effective communication and managerial skills. (Ethics, Management and Communication)

### Laboratories and other Facilities

The latest equipment has been inducted in the following labs and students are encouraged to fully utilize the lab facilities.

- |                                    |  |
|------------------------------------|--|
| · Thermodynamics                   | · Fluid Mechanics & Hydraulic Machines |
| · Mechanics of Machines            | · Engineering Mechanics                |
| · Materials Testing                | · CAD/FEA                              |
| · Energy Technologies              | · Heat Transfer                        |
| · Refrigeration & Air Conditioning | · Thermal Power Systems                |
| · Instrumentation & Control        | · Vibration                            |
| · Machine Tools & Machining        |  |

The Department has several licensed software (Pro- E, Solid Works, AutoCAD, CATIA, Fluent, ANSYS, TRNSYS, Solid Edge, HAP, Ecotect, MATLAB etc.) and students make use of these throughout their studies.

### Automotive Engineering Centre

This center has been established to contribute to the automotive engineering field through research and innovation. A wide variety of R&D facilities such as, engine performance testing, emission testing, automotive noise level measurement, are available at the center to support educational and industrial requirement.

### Mission:

To produce competent engineers who contribute to the society with knowledge, skill and attitude for design, analysis and sustainable development in the automotive engineering.

### Program Educational Objectives (PEOs):

- PEO-01:** Apply the knowledge to solve the complex engineering problems related to automotive engineering.
- PEO-02:** To meet the technological challenges and diverse needs of the industry and society in various areas of automotive engineering.
- PEO-03:** Manifest effective communication and managerial skills with ethical, environmental, and global responsibilities.



**Semester 1**

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
HU 111 & HU 111	Communication Skills	1	1
LMA 113	Calculus and Analytic Geometry	3	0
PHY 119	Engineering Physics	2	0
CS 101 & CS 101	Computing Fundamentals for Engineers	1	1
LME 111 & ME 111	Thermodynamics-I	3	1
LME 121 & 121	Engineering Graphics and Drawing	1	1
LME-131	Materials and Manufacturing -I	3	0

**Semester 3**

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
IS 201	Islamic and Pakistan Studies -II	3	0
ME 231 & Me231	Materials and Manufacturing – II (ME 131)	2	1
LME 251	Computer Aided Drawing	0	1
LME 221 & ME 221	Mechanics of Materials-I (ME 122)	3	1
LME 211 & Me211	Fluid Mechanics-I	3	1
LQT-201	Translation of Holy Quran-II	1	0
HU-100	Languages	0	0

**Semester 5**

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
ME 321 & ME 321	Mechanics of Machines (ME 122)	3	1
LME 311 & ME 311	Heat and Mass Transfer (ME 213)	3	1
LME 341	Instrumentation and Control	2	0
ME 322M	Machine Design -I (ME 222)	3	0
E-351	Computer Aided Design -I	0	1
LME 371	Health Safety & Industrial Environment	2	0
ME-399	Semester Design Project	0	1
LQT-301	Translation of Holy Quran-III	1	0

**Semester 7**

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
ME 461 & ME 461	IC Engine (ME 212)	2	1
LMGT 160	Engineering Economics	2	0
ME 451 & ME 451	Computational Engineering-II (ME 351)	2	1
LME 462	Energy Conservation and Management (ME 361)	2	0
ME 496	FYDP-I	0	3
LME 4	Elective-I	2	0
QT-401	Translation of Holy Quran-IV	1	0
ME 471	Production and Operations Management	2	0

**Semester 2**

B.Sc. Mechanical Engineering

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
IS 101	Islamic and Pak Studies-I	3	0
ME 122 & Me122	Engineering Mechanics	3	1
LCE 101 & CS 101	Computer Programming for Engineers	1	1
LHU 121 & HU 121	Technical Writing	1	1
LMA 225	Differential Equations and Transforms	3	0
EE 101	Electrical Engineering and Electronics	2	0
ME 100	Workshop Practice	0	1
LQT-101	Translation of Holy Quran-I	1	0

**Semester 4**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MGT 410	Engineering Project Management	2	0
ME 212 & ME 212	Thermodynamics-II (ME 111)	3	1
LME 213 & ME 213	Fluid Mechanics-II (ME 211)	3	1
LME 222 & 222	Mechanics of Materials-II (ME 221)	2	1
LMA-241	Applied Engineering Statistics	2	0
MGT 413 & MGT 413L	Engineering Entrepreneurship	1	1

**Semester 6**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
ME 342 & ME 342	Robotics and Automation (ME 341)	2	1
LME 381 & 381	Engineering Data Analytics & AI	2	1
LME 323	Machine Design II (ME 222)	2	0
ME 352	Computer Aided Design-II	0	1
LME-332	Metrology and Quality Assurance (MA 241)	2	0
ME 361	Energy Resources and Utilization (MA 311)	2	0
ME 351 & ME 351	Computational Engineering-I	2	1
LMGT-316B	Professional Ethics in Engineering Practices	2	0

**Semester 8**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
ME 463	Power Plants Engineering (ME 212)	2	0
ME-464	Energy & Power Systems	0	1
LME 411 & ME 411	Refrigeration and Air Conditioning (ME 311)	2	1
LME 421	Mechanical Vibration (ME 321)	2	0
MGT 312	Supply Chain Management	2	0
ME 497	FYDP- II (ME 496)	0	3
LME 4 - -	Elective-II	2	0

## B.Sc. Automotive Engineering

<b>Semester 1</b>		<b>Year 1</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
HU-111	Communication Skills	0	1
LMA-113	Calculus and Analytic Geometry	3	0
PHY-119 & PHY-119	Engineering Physics	2	1
LME-124 & ME-124	Engineering Graphics & Drawin	1	1
LME-111 & ME-111	Thermodynamics-I	3	1
LME-131	Industrial Materials	2	0
QT-101	Translation of Holy Quran-I	1	0
CS-101	Computing Fundamentals	2	0

<b>Semester 3</b>		<b>Year 2</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
EE-202 & EE-202	Automotive Electronics (EE-101)	2	1
LIS-201	Islamic & Pakistan Studies-II (IS 101)	3	0
MA-225	Differential Equations and Transforms	3	0
AM-211 & AM-211	Fluid Mechanics	3	1
LME-221 & ME-221	Mechanics of Materials-I (ME-125)	3	1
LQT-201	Translation of Holy Quran-II (QT-101)	1	0

<b>Semester 5</b>		<b>Year 3</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
ME-312 & ME-312	Heat and Mass Transfer (ME-212)	3	1
LME-331 & ME-331	Machine Tools and Machining (ME-331)	2	1
LMA-345 & MA-345	Numerical Methods in Computing	2	1
LAM-313	Fuels and Combustion (ME-212)	2	0
AM-314	Vehicle Tribology (AM-211)	2	0
AM-324 & AM-324L	Design of Machine Elements (ME-222)	3	1

<b>Semester 7</b>		<b>Year 4</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
ME-451 & ME-451	Finite Element Analysis (MA-345)	2	1
LME-413 & ME-413	IC Engines (AM-313)	2	1
LAM-441 & AM-441	Vehicle Instrumentations and Control Systems (EE-201,MA-242)	3	1
LME-431	Production and Operations Management (AM-231)	2	0
AM-498	Project I	0	3
LME 4--	Elective I	2	0

<b>Semester 2</b>		<b>Year 1</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
IS-101	Islamic & Pakistan Studies-I	3	0
EE-101 & EE-101	Electrical Engineering & Electronics	2	1
LME-132	Manufacturing Processes	2	0
CE-102 & CE-102	Computer Programming for Engineers (CS-101)	1	1
LME-125 & ME-125	Engineering Mechanics	3	1
LME-100L	Workshop Practice	0	1
MA-129	Vector and Complex Analysis	3	0

<b>Semester 4</b>		<b>Year 2</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
AM-223	Vehicle Dynamics (ME-125)	2	0
MA-242	Engineering Statistics	3	0
ME-212 & ME-212	Thermodynamics-II (ME-111)	3	1
LAM-231	Project Management and Engineering Economics2	2	0
ME-222 & ME-222	Mechanics of Materials-II (ME-221)	3	1
LHU-221	Technical Writing & Presentation Skills	3	0

<b>Semester 6</b>		<b>Year 3</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
AM-326 & AM-326	Vehicle Structure Design1,2 (AM-324)	2	1
LAM-325	Design for Manufacturing1 (ME-331)	3	0
AM-331	Quality & Reliability Engineering1,2 (MA-242)	3	0
AM-315 & AM-315	Vehicle Air Conditioning (ME-312)	2	1
LAM-316 & AM-316	Computational Fluid Dynamics (AM-211, AM-324L)	2	1
LQT-301	Translation of Holy Quran-III (QT-201)	1	0

<b>Semester 8</b>		<b>Year 4</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
AM-423	Vibration & Noise Control (ME-125)	2	0
AM-442	Intelligent vehicle (AM-441)	2	0
AM-431	Computer Integrated Manufacturing (ME-331, CS 102)	2	0
AM-414	Hybrid Vehicles (ME-413)	2	0
AM-499	Project II (AM-498L)	0	3
LME 4--	Elective II	2	0
QT-401	Translation of Holy Quran-IV (QT-301)	1	0



## DEPARTMENT OF INDUSTRIAL & MANUFACTURING ENGINEERING

### Dean

Prof. Dr. Nadeem Ahmad Mufti

### Chairman

Prof. Dr. Muhammad Qaiser Saleem

### Professor

Dr. Nadeem Ahmad Mufti

Dr. Muhammad Qaiser Saleem

### Associate Professors

Dr. Kashif Ishfaq

### Assistant Professors

Dr. Rakhshanda Naveed

Dr. Muhammad Faisal Shahzad

Dr. Sarmad Ali Khan

Mr. Bilal Arshad

Dr. Syed Farhan Raza Rizvi

Dr. Salman Habib

### Lecturers

Mrs. Kiran Mughal

Mrs. Sana Ehsan

Mr. Adeel Shahzad

Mr. Omer Asghar

### Mission

To impart quality industrial and manufacturing engineering knowledge through effective learning process for life-long career and leadership in the industry

### Program Educational Objectives (PEOs)

**PEO-01:** Effective application of knowledge and analytical skills to solve complex engineering problems related to Industrial and Manufacturing Engineering.

**PEO-02:** Demonstrate management and communication skills complementing technical competence.

**PEO-03:** Ability to use and improve upon contemporary and emerging technologies while focusing lean methodologies.

**PEO-04:** Demonstrate professional and ethical values and commitment towards continuous improvement.

## Genesis

The Department was established in 2006 to cater for the ever competitive needs of industry which demand highly skilled and motivated engineers, equipped with excellent management & soft skills.

## Introduction

In a global marketplace, creating and maintaining competitive advantage is the key to success. Today's industry leaders must satisfy customers' expectations for high quality products while dealing with the realities of soaring energy prices and increasing international competition. Cross-functional engineers, equipped with: a solid technical background, comprehension of new equipment and process technologies, a firm grasp of business matters and aspects of manufacturing policy, strong understanding of productivity improvement techniques and readiness to lead diverse teams, are the future of world-class manufacturing. Today, almost all major manufacturing and services industries train their newly inducted engineers for the aforementioned traits. Department of Industrial and Manufacturing Engineering, however, has designed its curricula to give its graduates a head start in this respect by including courses like Manufacturing Processes, Industrial Materials, Engineering Economics, Communication Skills, Project Management, Optimization Techniques, Production & Operations Management, Total Quality Management, Entrepreneurship, Social & Ethical Aspects in Engineering, Finite Element Analysis, Maintenance Engineering & Management and Production Tooling Design to name a few.

### The Department offers the following programs:

- a) Bachelors in Industrial and Manufacturing Engineering
- b) Masters and Ph.D. in:
  - i. Engineering Management
  - ii. Manufacturing Engineering

The Department takes pride in the fact that its B.Sc. IME program has been accredited by Pakistan Engineering Council on Level II outcome based education (OBE) system. To ensure continuous compliance to the requirements of this system, following cells/committees have been formed.

- |   |                               |
|---|-------------------------------|
| - Industrial Advisory Board                       | - OBE Core Committee          |
| - Quality Control Cell                            | - Labs Committee              |
| - Alumni, Industrial Linkages and Internship Cell | - Department Upkeep Committee |

### Laboratories & Infrastructure

The Department houses following laboratories containing equipment related to teaching, research and industrial support.

- |   |  |
|---|--|
| - Precision Machining Laboratory                  | - Non-Conventional Processes Laboratory      |
| - Measurement and Calibration Laboratory          | - Rapid Prototyping Laboratory               |
| - Computer Systems Laboratory                     | - CAD/CAM Laboratory                         |
| - Machine Tools and Production Tooling Laboratory | - Metrology and Quality Assurance Laboratory |
| - Work Study and Ergonomics Laboratory            | - Foundry Shop                               |
| - Welding Laboratory                              | - Graduate Laboratory                        |

The Department has modern computing facilities (i7 computers) and Wifi along with a well equipped library for facilitation of studies and research. Additionally, a center named "Foundry Service Center" (FSC) has been established at the premises of the Department with the help of "Small & Medium Enterprises Development Authority" (SMEDA) and "Pakistan Foundry Association" (PFA) with an aim to bridge the gap between industry and academia. The Department has also made it mandatory for third year students to successfully complete industrial internship for practical experience of real life. For this purpose an independent cell called Alumni, Industrial Linkages and Internship Cell is established to facilitate and monitor the internship process. The Department also offers dynamic student life by providing range of co-curricular activities such as workshops, quizzes, seminars, sport galas etc. These are primarily arranged by students from the platform of Industrial and Manufacturing Engineering Club (IMEC) under the supervision of Chairman.

## B.Sc. Industrial and Manufacturing Engineering

**Semester 1**

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
EE-199 & EE-199	Basic Electrical and Electronics Engineering	3	1
LMA-111	Applied Mathematics-I	3	0
IME-111 & IME-111L	Industrial Materials	2	1
CY-181 & CY-181	Industrial Chemistry-I	2	1
LME-100L	Workshop practice	0	1
IME-131 & IME-131L	Engineering Mechanics	3	1

**Semester 3**

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
EE-215 & EE-215	Basic Industrial Electronics (EE-199 & EE-199L)	2	1
LIME-232 & IME-232	Mechanics of Materials (IME-131 & IME-131L)	3	1
LIME-241 & IME-241	Thermo-Fluids	3	1
LIME-251	Social and Ethical Aspects in Engineering	2	0
IME-252	Industrial Safety and Environment	2	0
IME-233 & IME-233L	Mechanics of Machines	2	1

**Semester 5**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
IME-363 & IME-363	Instrumentation and Control (MA-112, EE-215 & EE-215L)	3	1
LMA-345 & MA-345	Numerical Methods in Computing (MA-111, CS-101 & CS-101L)	3	1
LCS-384 & CS-384	Introduction to Data Sciences	2	1
LIME-353 & IME-353	Human Factor Engineering	3	1
LIME-371	Engineering Economics	2	0

**Semester 7**

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
IME-XXX	Elective-I	3	1
IME-465 & IME-465	Production Tooling Design (IME 262 & 262L)	3	1
LMCT-434 & MCT-434	Industrial Automation	2	1
LIME-XXX	Elective-II	3	0
IME-401L	Project-I	0	3

**Semester 2**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
IS-101/HU-101	Islamic & Pak Studies-I/Ethics & Pak Studies-I	3	0
MA-112I	Applied Mathematics-II ( MA-111)	3	0
ME-121 & IME-121	Manufacturing Processes-I ( IME-111 & IME-111L, ME-100L)	3	1
LIME-161 & IME-161	Engineering Drawing and Graphics	1	2
LCS-101 & CS-101	Computing Fundamentals	2	1
LHU-111	Communication Skill	0	1
LHU-003	International Language	1	0
QT-101	Translation of Holy Quran-I	1	0

**Semester 4**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
IS-201/HU-201	Islamic and Pak Studies-II/Ethics & Pak Studies-II	3	0
MA-244 & MA-244	Probability and Statistics	2	1
LIME-222 & IME-222	Manufacturing Processes-II (IME-121 & IME 121L)	3	1
LIME-262 & IME-262	Machine Design and CAD (IME-161 & IME-161L, IME-232 & IME-232L)	3	1
LHU-221	Technical writing and presentation skills	3	0
QT-201	Translation of Holy Quran-II	1	0

**Semester 6**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
IME-354	Production Planning & Control	3	0
IME-364 & IME-364L	CAD/CAM(IME-222 & IME-222L, IME-262 & IME-262L)	2	1
IME-381 & IME-381L	Metrology and Quality Control (MA-244 & MA-244L)	3	1
IME-372 & IME-372L	Optimization Techniques	2	1
MGT-317	Project Management in Engineering	3	0
QT-301	Translation of Holy Quran-III	1	0

**Semester 8**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
IME-XXX	Elective-III	3	1
IME-XXX	Elective-IV	3	0
IME-455	Production and Operations Management	3	0
IME-456	Total Quality Management	3	0
IME-402	Project-II (IME-401L)	0	3
LQT-401	Translation of Holy Quran-IV	1	0



## DEPARTMENT OF MECHATRONICS & CONTROL ENGINEERING

### Dean

Prof. Dr. Nadeem Ahmad Mufti

### Chairman

Dr. Ali Raza

### Assistant Professors

Dr. UmmulBaneen

Dr. Mohsin Rizwan

Dr. Muhammad Ahsan

Dr. Syed Abbas Zulqurnain Naqvi

Dr. Sajid Iqbal

Dr. Maria Shakeel

Ms. Aisha Shoaib

Mr. M. Ahsan Naeem

### Lecturers

Ms. Amina Younas

Mr. Muhammad Rzi Abbas

Mr. Misbah-ur-Rehman

Mr. Syed Ahsan Masud Zaidi

Ms. Qurat ul Ain Masud

### Introduction

This program is accredited by Pakistan Engineering Council (PEC) under Washington Accord (W.A). Mechatronics is the synergistic combination of mechanical engineering, electronics, control engineering and computer science. It is essential in the design of intelligent products; it allows engineers to transform their concepts into reality. Currently, the use of intelligent products with improved flexibility, performance, reliability and maintainability is crucial for the economic vitality of any country. Thus, mechatronics engineering carries the potential to make major impacts upon various industries such as automotive, consumer electronics, biomedical and robotics/automation. At the same time, mechatronics is becoming popular at universities from the viewpoint of research as well. Research areas, relevant to mechatronics, are diverse and include robotics, actronics/sensorics, Micro Electro Mechanical Systems (MEMS), mechatronic devices/machines, control of mechatronic systems, human-machine- interface/haptics, embedded computing and software engineering as well as design/integration methodologies for mechatronic systems.

Initially, mechatronics was offered as a postgraduate degree program at UET Lahore in 1999. Keeping in view of the futuristic needs as well as the market

demand, the undergraduate program was initiated in 2001. The programs were run by the department Mechanical Engineering, and after maturation, by independently constituted department of Mechatronics & Control Engineering (DMCE) from 2005. Present undergraduate enrollment is around 342 students. The undergraduate program is designed to address the needs of technology-based-industries. It provides in-depth knowledge in the fundamentals, design, development, analysis and operation of mechatronic systems. The objective of the program is to provide a course of study which enables the students to effectively design integrated systems. The prime role of mechatronics is one of initiation and integration throughout the design process, with mechatronics engineer as the team leader. Up until 2020 Seventeen batches are serving the industry. Our graduates are serving in mechanical, electronic, instrumentation, automation, oil and gas, aviation and other sectors.

### Mission

The department, through quality education and enabling environment, aims to foster professional engineers capable of designing complex Mechatronic systems, serving current industrial needs and deve

### Programs of Study

The following programs of study are offered:

- a) B.Sc. Mechatronics & Control Engineering
- b) M.Sc. Mechatronics Engineering
- c) Ph.D. Mechatronics Engineering

### Program Educational Objectives (PEOs)

To nurture Mechatronics engineer who:

**PEO-01:** Can Skilfully design and implement integrated solutions to general Mechatronics engineering problems.

**PEO-02:** is capable of developing professional skills, while adhering to high ethical values, to excel in industry, research organizations and succeed in entrepreneurial ventures.

**PEO-03:** Can innovate and embark on new directions in advancing the Mechatronics technologies which have direct national and international relevance.

### Laboratories and other facilities

To supplement theoretical studies with practical work, department is well equipped with resources in the form of following laboratories:

- AI & Robotics
- Instrumentation & Control
- Digital Systems
- Power Electronics
- Embedded Systems
- Hydraulics and Pneumatics
- Simulation
- Mechanics
- Industrial Automation
- Computer

Department also shares some of the laboratoriess and other resources with Mechanical, Industrial & Manufacturing and Electrical Engineering Departments.

### Library

The department has a well-stocked library with a large number of books and journals on mechatronics system design, robotics, industrial automation, artificial intelligence, machine vision, biomedical engineering, digital signal processing, control system, electronics, instrumentation and measurements, microprocessor and microcontroller CAD/CAM, engineering mechanics, engineering drawing and graphics, communication systems.

### Industrial Training

Refresher courses in various fields of mechatronics engineering are offered to the industry and practicing professionals. Lectures and seminars on different technical aspects are arranged by local and foreign experts. The department also renders advisory services to a large number of organizations in the field of Automation, Hydraulics and Pneumatics, and Embedded Systems.

### Student Advisory Services

Department has deputed faculty members as tutors so that students may seek guidance regarding different aspects of students life in the university. Queries regarding curricular and co-curricular activities can be discussed with the allocated tutor.

### Mechatronics Club

The department has launched a Mechatronics Club to promote design and development activities in the area. In normal routine, students of higher classes use advanced equipment but this club provides opportunity for juniors to mingle with seniors and learn skills right from the start. Club in-charge delivers lectures, designates projects and provides guidance in programming computer interfacing, microcontrollers, etc.

### Research

The department provides liberal facilities for research to the final year undergraduate students, postgraduate students and to the faculty members. Current research areas are:

#### AI & Robotics

The current research focus of this area include: Artificial intelligence, Machine Learning, Biological Computation, Evolutionary, Cellular and Neural Computation, Complex Adaptive Systems, Sensory Systems and behavior evolution, Language evolution, Mimetic evolution.

#### Human Centered Robotics Laboratory of NCRA

Human-Centered Robotics Laboratory of our department is part of newly established National Center of Robotics and Automation. The lab aims to indigenously design and develop integrated robotic systems, based on smart sensing and actuation, to seamlessly interact with humans, actively learn from them and eventually create an effective collaborative environment. A dedicated team of Mechatronics Engineers is currently working on the indigenous development of collaborative robots, industrial exo-skeletons and active prostheses.

#### Industrial Automation

Research in this area involves conventional as well as modern approaches for plant automaton; starting from use of PLC, Open architecture solutions, embedded solutions, SCADA, DCS and PLCs.





## B.Sc. Mechatronics &amp; Control Engineering

**Semester 1**

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MA-113	Calculus and Analytic Geometry	3	0
MCT-111	Engineering Graphics and Drawing	1	2
MCT-121	Electric Circuits	3	1
IS-101/HU-101	Islamic and Pak Studies –I/Ethics and Pak Studies - I	3	0
PHY-118	Applied Physics	2	1
ME-100L	Workshop Practice	0	1

**Semester 3**

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MA-129	Vector and Complex Analysis	3	0
MCT-211	Engineering Dynamics (MCT-115)	3	1
MCT-242	Computer Programming I	1	2
MCT-223	Electrical Machinery (MCT-121)	2	1
MCT-241	Digital Logic Design	3	1
QT-201	Translation of the Holy Quran - II	1	0

**Semester 5**

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MA-240	Numerical Analysis (MCT-242)	2	1
MCT-331	Modeling and Simulation (MA-225)	3	1
MCT-335	Instrumentation and Measurements (MCT-122)	2	1
MCT311	Design of Machine Elements and CAD/CAM (MCT-215)	3	1
MCT-313	Hydraulics and Pneumatics	3	1

**Semester 7**

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MGT-211	Principles of Management	3	0
MCT-431	Control Systems – II (MCT-333)	2	1
MGT-413	Entrepreneurship	3	0
MCT-4xx	Elective I	2	1
MCT-402	Signals and Systems (MA-225)	2	1
MCT-498	Final Project- I (MCT-302)	0	3

**Semester 2**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MA-225	Differential Equations and Transforms	3	0
MCT-115	Engineering Statics	2	0
MCT-113	Manufacturing Processes	3	1
MCT-122	Electronic Devices and Circuits	3	1
MCT-114	Fundamentals of Thermal Sciences	2	1
HU-111	Communication Skills	0	1
QT-101	Translation of the Holy Quran-I	1	0

**Semester 4**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MA-234	Linear Algebra	3	0
MCT-222	Embedded Systems (MCT-241, MCT-122, MCT-242)	3	1
MCT-213	Mechanisms	2	1
MCT-215	Mechanics of Materials	2	1
MCT-243	Computer Programming II (MCT-242)	0	2
IS-201/HU-201	Islamic and Pak Studies -II/ Ethics and Pak Studies -II	3	0

**Semester 6**

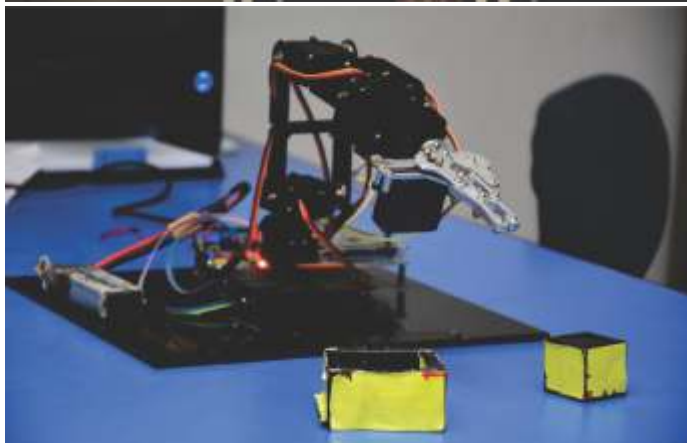
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MA-244	Probability and Statistics	2	1
MCT-333	Control Systems – I (MCT-331)	3	1
MCT-334	Industrial Automation	2	1
MCT-351	Robotics (MA-234)	3	1
MCT-302	Product Design	2	1
QT-301	Translation of the Holy Quran-III	1	0

**Semester 8**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MCT-404	Professional Ethics	2	0
HU-221	Technical Writing & Presentation Skills	3	0
MCT-4xx	Elective II	2	1
MCT-4xx	Elective III	2	1
MCT-499	Final Project- II (MCT-498)	0	3
QT-401	Translation of the Holy Quran - IV	1	0

**Elective Subjects**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MCT-405	Introduction to Bio Medical Engineering (MCT-332)	2	1
MCT-415	Mechanical Vibrations	2	1
MCT-412	Condition Monitoring	2	1
MCT-421	Digital Signal Processing (MCT-402)	2	1
MCT-422	Power Electronics (MCT-122)	2	1
MCT-432	Digital Control Systems (MCT-333)	2	1
MCT-433	Estimation and Filtering (MCT-333)	2	1
MCT-452	Intelligent Systems (MCT-242)	2	1
MCT-453	Machine Vision (MCT-243)	2	1
MCT-454	Mobile Robotics (MCT-351)	2	1
MCT-491	Special Topics in Mechatronics	2	1



Faculty of  
Civil Engineering





## DEPARTMENT OF CIVIL ENGINEERING

### Dean

Prof. Dr. Habib-ur-Rehman

### Chairman

Prof. Dr. Khalid Farooq

### Professors

Prof. Dr. Muhammad Ashiq  
Prof. Dr. Noor Muhammad Khan  
Prof. Dr. Asad Ullah Qazi  
Prof. Dr. Asif Hameed  
Prof. Dr. Muhammad Burhan Sharif  
Prof. Dr. Rashid Hameed

### Associate Professors

Dr. Riaz Ahmad Goraya

Dr. Hassan Mujtaba Shahzad  
Dr. Safeer Abbas  
Dr. Qasim Shaukat Khan  
Dr. Ali Ahmed  
Dr. Nauman Khurram  
Dr. Jehanzeb Israr  
Dr. Muhammad Irfan-ul-Hassan  
Dr. Waseem Abbas

### Assistant Professors

Dr. Imtiaz Rashid  
Dr. Muhammad Yousaf  
Dr. Usman Akmal  
Mr. Ehtesham Mehmood  
Mr. Usman Ali  
Dr. Syed Asad Ali Gillani

Dr. Umbreen us Sahar  
Dr. Mazhar Saleem  
Dr. Rizwan Azam  
Dr. Muhammad Rizwan Riaz  
Dr. Aqsa Shabbir

### Lecturers

Ms. Vaiza Shiraz  
Mr. Muhammad Rehan Ashraf  
Mr. Ubaid Ahmad Mughal  
Ms. Fatima Mehmood  
Ms. Aamina Rajput  
Mr. Bilal Ahmad Khokar  
Mr. Akbar Tufail  
Mr. Abdul Rehman

The Department of Civil Engineering at UET Lahore is one of the oldest departments in the country imparting civil engineering courses at undergraduate and postgraduate levels. The Department was established in 1939 as a part of the Maclagan Engineering College, Lahore. Currently, it has an enrollment of over 1000 students in bachelor, Master and Ph.D. The number of Ph.D. faculty members serving in the department is maximum comparable to any other Civil Engineering program offered in the country. Civil engineering discipline deals with the planning, design, construction, operation and maintenance of the physical and naturally built environment, including works such as buildings, bridges, flyovers, under passes, roads, railway tracks, airports, docks & harbors, factories, dams, barrages, canals, water supply schemes and sewerage systems, etc. Civil engineering is the broadest discipline focusing on various challenging engineering problems and involves multidimensional specialties.

A civil engineering graduate of UET Lahore has sufficient opportunities of getting jobs in various government/private departments i.e., Communication & Works (C & W), Water and Power Development Authority (WAPDA), Punjab Irrigation Department (PID), Civil Aviation Authority, Pakistan Railways, National Highway Authority (NHA), Lahore Development Authority (LDA), Water and Sanitation Agency (WASA), Public Health Engineering Department (PHED), National Engineering Services Pakistan (NESPAK), Associated Consultant Engineers (ACE), National Development Consultants (NDC), SKB Engineering & Construction, Descon Engineering Limited, Atomic Energy Commission (AEC) and many more. Due to the active participation by the students and faculty of this department, UET has been declared as American Concrete Institute outstanding University for the year 2014 and 2015.

Dr. Mubashir Hassan (Ex. Federal Finance Minister), Dr. Ahmad Jan Durrani (Ex. Vice Chancellor LUMS), Dr. Shamsul Malik (Ex. Chairman WAPDA), Dr. Tahir Masood, Dr. Shamim A. Sheikh, Dr. Mehreen Farooqi, Dr. Adil Najam and Prof. Dr. Hanif Chaudhry are some of the famous alumni of the Civil Engineering Department.

### Mission

To impart high quality Civil Engineering education through modern teaching and research for the national and international socio-economic development.

### Outcome Based Education System

Civil Engineering program has opted and accredited for Outcome Based Education (OBE) system since session-2012.

### Program Educational Objectives (PEOs)

- PEO-01.** Graduates demonstrate their proficiency of applying the knowledge & skills to solve complex civil engineering problems.
- PEO-02.** Graduates communicate effectively and contribute in the project team.
- PEO-03.** Graduates uphold principles of ethics and integrity throughout their professional practices
- PEO-04.** Graduates engage themselves in continuous professional learning process.

The Department has the following divisions to conduct its teaching and research programs:

- 1. Structural Engineering**
- 2. Geotechnical Engineering**
- 3. Hydraulics and Irrigation Engineering**

The Department offers B.Sc. Civil Engineering program at undergraduate level. In addition, following postgraduate level programs are also being offered:

- a) M.Sc. Hydraulics and Irrigation Engineering
- b) M.Sc. Geotechnical Engineering
- c) M.Sc. Structural Engineering
- d) Ph.D. Civil Engineering

### Laboratories and Other Facilities

The Department has the following well-equipped laboratories, which meet the academic needs of students and teachers as well as the professional demands of the government and private organizations:

- Concrete Laboratories
- Earthquake Engineering Laboratories
- Geotechnical-Foundation Engineering Laboratory
- Strength of Materials Laboratory
- Test Floor Laboratory
- Computer Center
- Engineering Mechanics Laboratory
- Hydraulics & Irrigation Engineering Laboratory
- Surveying & Levelling laboratory
- Transportation Engineering Laboratory

Civil Engineering graduates are eligible to get membership form Pakistan Engineering Council (PEC) which has become the full signatory of prestigious Washington Accord (WA). This would facilitate mobility of engineering graduates and professionals of Pakistan at international levels as undergraduate degree program of civil engineering is well recognized in all Washington Accord countries. The graduates from PEC accredited engineering programs will be accepted for education and employment purposes in other member countries of Washington Accord.



## B.Sc. Civil Engineering

**Semester 1**

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CE-103	Construction Materials	2	1
CE-105	Civil Engineering Drawing	1	2
Phy-122	Basic Mechanics	2	1
MA-111	Applied Mathematics-I	3	0
EE-198	Basic Electrical Technology	1	1
MinE-170	Basic Engineering Geology	2	0
QT-101	Translation of the Holy Quran	1	0

**Semester 2**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CE-101	Elementary Surveying	3	1
CE-102	Computer Programming	2	1
HU-101	Communication Skills	0	1
IS/Hu-101	Islamic & Pak Studies/ Ethics	3	0
MA-112	Applied Mathematics-II	3	0
ME-119	Basic Mechanical Technology	1	0
ME-100L	Workshop Practice	0	1

**Semester 3**

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CE-201	Surveying and GIS-RS Applications	3	1
CE-212	Mechanics of Materials	3	1
CE-231	Fluid Mechanics-I	3	1
IS/HU-201	Islamic & Pak Studies/Ethics	3	0
MA-240	Numerical Analysis	2	1

**Semester 4**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CE-205	Civil Engineering Construction & Graphics	2	1
CE-207	Engineering Economy and Construction Management	3	1
CE-211	Elementary Structural Analysis	3	0
CE-221	Geotechnical Engineering-I	3	1
ATP-201	Introduction to Architecture and Town Planning	2	0
QT-201	Translation of the Holy Quran	1	0

**Semester 5**

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Mgt-317	Project Management in Engineering	2	0
CE-311	Structural Analysis	2	0
CE-313	Steel Structures	3	1
CE-321	Geotechnical Engineering-II	3	1
CE-332	Hydrology and Water Resources Management	2	1
HU-300	Technical Report Writing	0	1
QT-301	Translation of the Holy Quran	1	0

**Semester 6**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CE-312	Structural Mechanics	3	1
CE-314	Plain & Reinforced Concrete-I	3	1
CE-331	Fluid Mechanics-II	3	1
CE-305	Hazards and Disaster Management	2	0
MA-356	Probability and Statistics in Engineering	2	0
Mgt-319	Entrepreneurship for Engineers	1	0
CE-306	Professional Ethics	1	0

**Semester 7**

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CE-412	Structural Engineering	3	1
CE-411	Plain & Reinforced Concrete-II	3	1
CE-421	Transportation Engineering	3	1
CE-434	Hydraulic Engineering	3	1
CE-499	Project	0	3

**Semester 8**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CE-431	Irrigation Engineering	3	1
CE-413	Design of Structures	2	1
CE-423	Pavement & Foundation Engineering	3	0
ENE-440	Environmental Engineering	3	1
QT-401	Translation of the Holy Quran	1	0
CE-499	Project	0	3



Department of Architectural Engineering & Design  
University of Engineering & Technology  
Lahore - Pakistan

## DEPARTMENT OF ARCHITECTURAL ENGINEERING & DESIGN

### Dean

Prof. Dr. Habib Ur Rehman

### Chairman

Prof. Dr. Sajjad Mubin

### Professor

Dr. Sabahat Arif

### Associate Professor

Dr. Khuram Rashid

### Assistant Professors

Mr. Imran Ahmad Saeed

Dr. Maria Idrees

### Lecturers

Ms. Tehreem Naseer

Dr. Nasir Javed

Ms. Arjmand Khaliq

Ms. Anam Fatima

Ms. Alina Mahmood

Mr. H. Abrar Ahmad

Mr. Abdul Mueed Iqbal

Ms. Huda Riaz

Ms. Afia Razzaq

Ms. Khadija Mawra

The Department of Architectural Engineering and Design was established first time in Pakistan at University of Engineering and Technology Lahore in the year 2001. The department is offering 4-years B.Sc. Architectural Engineering, M.Sc. Building Engineering, M.Sc. Integrated Building Design, M.Sc. Construction Management and PhD in Architectural Engineering. The Architectural Engineering program is a blend of Architecture and Engineering, the emphasis of this Program is to give quality education to the students and prepare them for the building industry of Pakistan as successful professionals with innovative and multi-disciplinary approach. The department has enrollment of average 50 students per batch in undergraduate program. The Graduates of Architectural Engineering program are working in various national/international organizations and enjoying good repute. The demand of Architectural Engineers has increased rapidly during last few years resulting 100% absorption of graduates in private and public-sector organizations and upgradation of admission merit. The most prominent areas of curriculum include Building Structures, HVAC system of Buildings, Electrical System of Buildings (Lighting and Illumination), Water Supply and Sanitation System of Buildings, Building Construction, Energy Efficient Buildings, Integrated Building Design, Green Buildings, Project Management, Fire Safety, Acoustics of Buildings, Materials of Construction, and Conservation of Historical

Buildings. Students have choice to select the field of their interest by studying elective course in 8th semester and final year project in the same area. This conforms with the offering of specialized field in Architectural Engineering Program at various international universities. The department has adopted Outcome Based Education (OBE) system since 2015.

The department has faculty from various disciplines including Architectural Engineering, Civil Engineering, Architecture, Electrical Engineering, Mechanical Engineering and Environmental Engineering. The department has a dedicated library, three Digital Studios and six laboratories including Structural Engineering Laboratory, Construction Laboratory, Geo-Technical Engineering Laboratory, Survey Laboratory, Environmental Control Systems Laboratory and Electrical Laboratory.

### Mission

To give quality education in architectural engineering with innovative and multi-disciplinary approach for sustainable solutions to meet the requirements of building industry and societal benefits.

### Program Educational Objectives (PEOs)

- PEO-01:** Have ability to propose reasonably acceptable, sustainable and innovative solutions of routine projects and complex architectural engineering problems.
- PEO-02:** Have attained position of leadership of a small section/ team and enjoying good repute in terms of communication skills and professional ethics.
- PEO-03:** Continue to improve serviceable skills related to the profession through continuing education (higher education, participation in training courses, workshops, conferences, CPD courses, seminars)



## B.Sc. Architectural Engineering

## Semester 1

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
AE 101	Surveying	2	1
CS 101	Introduction to Coputing	2	1
IS 101	Islamic and Pak Studies-I	3	0
MA 115	Engineering Mathematics	3	0
AE 111	Building Materials & Construction-I	2	1
AE 141	Architectural & Engineering Drawing	0	2

## Semester 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
HU 101	Communication Skills	0	1
LAE 102	Profession of Architectural Engineering	1	0
AE-132	Mechanics of Materials-I	3	1
PHY 102	Physics for Architectural Engineers	2	1
ME-100	Workshop Practice	0	1
WLAE 113	Building Materials & Construction-II	2	1
AE 142	Computer Aided Drawing	1	1

## Semester 3

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
IS 201	Islamic And Pak Studies-II	3	0
MA 228	Differential Equation	3	0
AE 212	Building Materials & Construction-III	2	1
AE 233	Elementary Structural Analysis	2	1
AE 241	Architectural Design-I	0	2
AE 220	Environmental Control Systems	2	1

## Semester 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MA 217	Mechanics and Statistics	3	0
AE 223	Fluid Mechanics	2	1
AE 213	History of Building Technology	1	1
AE 234	Mechanics of Materials-II	3	1
AE 242L	Architectural Design-II	0	3

## Semester 5

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
AE 326	Water Supply & Sanitation System for Buildings	2	1
AE 327	Electrical Systems for Buildings	2	1
AE 333	Design of Concrete Structures-I	3	1
AE 342	Architectural Design-III	0	2
LAE 363	Geotechnical Engineering	2	1
CSE 311	Numerical Analysis	1	1

## Semester 6

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
HU 200	Technical Report Writing	3	0
AE 328	Mechanical Systems for Buildings	2	1
AE 329	Lighting & Illumination	2	1
AE 334	Design of Concrete Structures -II	3	1
AE 364	Foundation Engineering	3	1
AE 351	Estimation & Quantity Surveying	2	1

## Semester 7

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
AE 435	Computer Aided Structural Analysis	3	1
AE 436	Design of Steel Structures	3	1
AE 441	Integrated Building Design-I	0	2
LAE 453	Construction Management	3	1
AE 473L	Project	0	3

## Semester 8

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
AE 437	Structural Dynamics & EQ Engineering	3	1
AE 442	Integrated Building Design-II	1	2
Mgt-419	Entrepreneurship for Engineers	1	0
AE 454	Professional Ethics	2	0
AE-4xx	Elective	2	0
AE 474L	Project	0	3

## Elective Subjects

Course No.	Subject (Pre-requisites)
AE 433	Design of High Rise Buildings
AE 455	Procurement Management

AE 443	Building Rehabilitation
AE 414	Sustainable Building Materials
AE 403	Research Methodology



## DEPARTMENT OF TRANSPORTATION ENGINEERING & MANAGEMENT

### Dean

Prof. Dr. Habib-ur-Rehman

### Associate Professors

Dr. Zia-ur-Rehman

Dr. Saadia Tabassum

Dr. Abdur Rahim

Bilal Zia Malik

Mujasim Ali Rizvi

Dr. Izza Anwar

### Chairman

Prof. Dr. Ammad Hassan Khan

### Assistant Professors

Hina Saleemi

Dr. Amna Chaudhry

The Department of Transportation Engineering and Management (DTEM) was established under the Faculty of Civil Engineering. The Department has distinction of being the first department in the nation to offer a formal B.Sc. Degree course in Transportation Engineering. The aim of establishment of this Department was to improve the existing transportation infrastructure and to develop human resource in professionals capable of planning, designing, constructing, managing, operating, and maintaining of various modes of transportations such as highways, railways, airways, seaways, and pipeways. Fourteen sessions 2002-2015 of the DTEM have already been graduated.

### Mission

Our mission is to produce high quality graduates in the field of Transportation Engineering, carry out research at national and international level, inculcating professionalism in our graduates, and provide advisory services at national level.

### Program Educational Objectives

**PEO-01:** Solve complex problems related to Transportation Engineering

**PEO-02:** Apply concept of economy, environmental friendliness and sustainability in the practices of Transportation Engineering.

The Department of Transportation Engineering and Management (DTEM) was established under the Faculty of Civil Engineering. The Department has distinction of being the first department in the nation to offer a formal B.Sc. Degree course in Transportation Engineering. The aim of establishment of this Department was to improve the existing transportation infrastructure and to develop human resource in professionals capable of planning, designing, constructing, managing, operating, and maintaining of various modes of transportations such as highways, railways, airways, seaways, and pipeways. Fourteen sessions 2002-2015 of the DTEM have already been graduated.

### Mission

Our mission is to produce high quality graduates in the field of Transportation Engineering, carry out research at national and international level, inculcating professionalism in our graduates, and provide advisory services at national level.

### Program Educational Objectives

**PEO-01:** Solve complex problems related to Transportation Engineering

**PEO-02:** Apply concept of economy, environmental friendliness and sustainability in the practices of Transportation Engineering.

**PEO-03:** Become sound professionals capable of working with integrity and commitment with due consideration to ethical norms of society,

**PEO-04:** Provide services to society and engineering community or to uphold entrepreneurship through communication skills at national and international level.

### Courses of Study

The Department offers the following courses of studies:

- B.Sc. Transportation Engineering
- M.Sc. Transportation Engineering
- M.Sc. Transportation Informatics
- Ph.D. Transportation Engineering

The emphasis of bachelor's degree course is on the understanding of the fundamental concepts and principles that constitute the basis of transportation engineering. The course consists of lectures, design/practical work, laboratory/field investigations, presentations and final year research project. Field survey camp is also a part of the B.Sc. degree program. The general areas include: Mathematics, Technical Drawing, Computer Programming, Probability and Statistics, Basic Civil and Environmental Engineering.



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## B.Sc. Transportation Engineering

**Semester 1**

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MA-111	Applied Mathematics I	3	0
CE-107	Technical Drawing	2	2
TE-141	Introduction To Transportation Engineering	3	0
EE-199	Applied Electricity	3	1
IS-101	Islamic & Pak Studies - I	3	0

**Semester 2**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MA - 112	Applied Mathematics II	3	0
CS-101	Computing Fundamentals	2	1
CE - 101	Elementary Surveying	3	1
PHY - 122	Basic Mechanics	2	1
TE - 101	Social Science	3	0
HU-111	Communication Skills	0	1
LME-100	Workshop Practice	0	1
LQT-101	Translation of Holy Quran	1	0

**Semester 3**

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
TE - 242	Construction Materials and Machinery	2	1
CE - 203	Fluid Mechanics	3	1
AIS - 201	Islamic & Pak Studies-II	3	0
CE - 212	Mechanics of Materials	3	1
CE - 201	Surveying and GIS-RS Application	3	1

**Semester 4**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
TE - 211	Transportation Engineering Practice	2	1
TE - 244	Geotechnical Engineering-I	3	1
CE-213	Structural Analysis	3	0
MA-244	Probability and Statistics	2	1
HU-221	Technical Writing and Presentation Skills	3	0
QT-201	Translation of Holy Quran	1	0

**Semester 5**

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
TE - 243	Automotive Engineering	2	1
CE - 332	Engineering Hydrology	2	1
TE - 351	Geotechnical Engineering II	3	1
TE - 361	Highway Engineering	3	1
Geo - E - 350	Engineering Geology	3	1

**Semester 6**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
TE-302	Organizational Behavior	3	0
TE - 352	Traffic Engineering-I	2	1
CE - 314	Plain And Reinforced Concrete	3	1
ATE - 353	Bridge Engineering	2	1
TE - 354	Railway Engineering	2	1
QT-301	Translation of Holy Quran	1	0

**Semester 7**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
TE - 461	Pavement Design And Construction	2	1
ENE - 407	Environmental Impact Assessment And Management	3	0
TE - 462	Harbour And Dock Engineering	2	0
TE - 463	Transportation Planning And Economics	3	0
TE - 464	Tunnel Engineering	2	0
TE - 481	Project	0	3

**Semester 8**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
TE - 465	Airport Engineering	3	0
TE - 466	Geomatics Engineering And Transportation	3	1
TE - 467	Asset Management	3	1
TE - 468	Traffic Engineering-II	2	0
TE - 469	Pipeway Engineering	2	1
QT-401	Construction Management	1	0
TE - 482	Translation of Holy QuranProject	0	3



## INSTITUTE OF ENVIRONMENTAL ENGINEERING & RESEARCH

### Dean

Prof. Dr. Habib Ur Rehman

### Director

Prof. Dr. Sajjad H. Sheikh

### Associate Professors

Dr. Amir Ikhlaq  
Dr. Muhammad Umar Farooq

### Assistant Professors

Dr. Mehwish Anis  
Dr. Muhammad Irfan Jalees  
Dr. Ghulam Hussain

### Lecturers

Ms. Gul -E- Hina  
Ms. Sahar Aurangzeb  
Mr. Tanveer Ahmed  
Ms. Qurat-ul-Ain  
Mr. Haroon Rashid

### Introduction

The Institute was established in 1972 with the assistance of World Health Organization (WHO). It is the premier educational institute that train professionals in the field of Environmental Engineering. The areas include water supply, sewerage, water and wastewater treatment, solid waste management, air pollution control and environmental studies. Until 2004, its role remained as a post-graduate institute. However, to meet the increasing demand of professionals in the field of environmental engineering, B.Sc. Environmental Engineering degree was initiated in year 2005. It is also one of the oldest and most reliable Institute that provides commercial testing services of water, wastewater and air. The Institute remained instrumental in framing National Environmental Quality Standards (NEQS) and National Standards for Drinking Water Quality (NSDWQ). In year 2017, it has switched to Outcome Based Education (OBE) system. Batches from 2013 and onwards are accredited by Pakistan Engineering Council (PEC) on OBE. B.Sc. degree is now recognized by 18 members of Washington Accord including USA, UK, Australia, Canada, Japan, China, and others.

### Mission

70 To produce graduates capable to solve complex engineering problems related to environmental engineering, provide innovative and sustainable solutions

for water supply, sewerage, water and wastewater treatment, solid waste management & air pollution problems, and devise appropriate solutions for the above utility services.

### Courses Offered

The following courses of study are offered at different levels

- |                                       |                                       |
|---------------------------------------|---------------------------------------|
| a) B.Sc. in Environmental Engineering | b) M.Sc. in Environmental Engineering |
| c) M.Phil. in Environmental Science   | d) Ph.D. in Environmental Engineering |

### Laboratories & Other facilities

The Institute has laboratory facilities in the following areas:

- |                                 |  |
|---------------------------------|--|
| ● Water and Wastewater Analysis | ● Unit processes   |
| ● Air Pollution Monitoring      | ● Environmental Microbiology                               |
| ● Heavy Metal Analysis          | ● Pesticides, insecticides, and organic compounds analysis |

In addition, the institute is also equipped with modern computer laboratory having high speed internet facility and one library. All classrooms are air conditioned and equipment with essential audio-visual aids.

### Research & Investigation

High quality research is conducted in the following areas:

- |                                      |                                      |
|--------------------------------------|--------------------------------------|
| ● Water pollution analysis & control | ● Water supply and sanitation        |
| ● Water and air quality modeling     | ● Air pollution analysis and control |
| ● Water treatment                    | ● Wastewater treatment               |
| ● Climate change                     |                                      |

Research is problem based and conducted through M.Sc. and Ph.D. students. Research work is published in high quality international journals and is widely cited throughout the world.

### Careers in Environmental Engineering

The graduates of IEER have very encouraging employment rate. They are serving within and outside the country. The employers of IEER graduates within the country include Water and Sanitation Authority (WASA), Water and Power Distribution Authority (WAPDA), Lahore Waste Management Company (LWMC), The Urban Unit, Punjab, Environmental Protection Department (EPD), WWF Pakistan, NESPAK, Mott McDonalds Pakistan (MMP), National Development Consultants (NDC) and several other national consulting firms. The graduates of IEER have also been serving in international firms including Saud Consult, Saudi Arabia, Parsons International Limited, UAE etc.

### B.Sc. Environmental Engineering Program

Since its inception in 2005, the B.Sc. Environmental Engineering degree program was accredited by PEC. Recently it switched to Outcome Based Education (OBE) system.

### Program Educational Objectives (PEOs)

Program educational objectives (PEOs) of undergraduate program are listed as under:

- PEO-01:** Graduates will be designing and developing sustainable solutions, providing stewardship for the challenging environmental problems in national and international organizations.
- PEO-02:** Graduates will pursue their professional careers through continual improvement in technical, managerial and communication skills.
- PEO-03:** Graduates will spearhead the environmental projects observing ethical and professional values while fulfilling the diverse needs of the society.



**Semester 1**

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
HU-111L	Communication Skills	1	
IS-101	I & P Studies/ E& P Studies-I	3	
CE-101	Elementary Surveying	3	
CE-101L	Elementary Surveying	1	
EnE-101	Introduction to Environmental Engineering	2	
PHY-112	Applied Physics	2	
PHY-112L	Applied Physics	1	
MA-115	Engineering Mathematics	3	

**Semester 3**

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
IS-201	I & P Studies/ E & P Studies-II	3	
EnE-201	Environmental Microbiology	2	
EnE-201L	Environmental Microbiology	1	
CE-232	Fluid Mechanics	3	
CE-232L	Fluid Mechanics	1	
CE-235	Soil Mechanics	3	
CE-235L	Soil Mechanics	1	
MA-242	Engineering Statistics	3	

**Semester 5**

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CRP-301	Sustainable Urban Planning	2	
EnE-331	Water Supply and Wastewater Engineering	3	
EnE-331L	Water Supply and Wastewater Engineering	1	
EnE-312	Environmental Economics	2	
EnE-323	Solid Waste Management	3	
EnE-323L	Solid Waste Management	1	
EnE-324	Environmental Engineering Lab Techniques	1	
EnE-324L	Environmental Engineering Lab Techniques	2	
CE-333	Engineering Hydrology	2	
CE-333L	Engineering Hydrology	1	

**Semester 7**

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
EnE-431	Air Pollution Control and Climate Change	3	
EnE-431L	Air Pollution Control and Climate Change	1	
EnE-432	Environmental Modeling	2	
EnE-432L	Environmental Modeling	1	
EnE-433	Industrial and Hazardous Waste Management	3	
ME-481	Energy Resources & Management	2	
EnE-404	Ethics and Interpersonal Skills	1	
QT-401	Quran Translation IV	1	
EnE-499	Final Year Project	3	

**Semester 2**

B.Sc. Environmental Engineering

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-101	Computing Fundamentals	2	
CS-101L	Computing Fundamentals	1	
EnE-102	Environmental Chemistry	3	
EnE-102L	Environmental Chemistry	1	
ME-100L	Workshop Practice	1	
MA-116	Linear Algebra & Differential Equations	3	
PHY-122	Basic Mechanics	2	
PHY-122L	Basic Mechanics	1	
EnE-103	Environmental Laws and Policies	2	
QT-101	Quran Translation I	1	

**Semester 4**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
EnE-202	Ecological Management	2	
HU-221	Technical Writing and Presentation Skills	3	
TEM-225	Transportation Engineering	2	
TEM-225L	Transportation Engineering	1	
ME-238	Thermodynamics	2	
ME-238L	Thermodynamics	1	
CE-240	Engineering drawings and CAD	1	
CE-240L	Engineering drawings and CAD	2	
CE-210	Structural Systems	3	
QT-201	Quran Translation II	1	

**Semester 6**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CRP-302	GIS and Remote Sensing	2	
CRP-302L	GIS and Remote Sensing	1	
EnE-335	Principles of Water and Wastewater Treatment	3	
EnE-335L	Principles of Water and Wastewater Treatment	1	
ChE-320	Cleaner Production Techniques	2	
CE-345	Water Resources & Irrigation Engineering	3	
CE-346	Project Management and Construction Supervision	3	
MA-346	Numerical Methods	3	
QT-301	Quran Translation III	1	

**Semester 8**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
EnE-434	Water and Wastewater Treatment Plant Design	3	
EnE-434L	Water and Wastewater Treatment Plant Design	1	
EnE-425	Environmental Impact Assessment and Management	3	
EnE-426	Wastewater Disposal and Reuse	2	
MGT-413	Entrepreneurship	3	
ChE-452	Environmental Health & Safety	3	
EnE-499	Final Year Project	3	

Faculty of  
Chemical Engineering





## DEPARTMENT OF CHEMICAL ENGINEERING

### Dean

Prof. Dr. –Ing. Naveed Ramzan

### Chairperson

Dr. Saima Yasin

### Professor on SNGPL Chair of Gas Engineering

Dr. Saima Yasin (Acting)

### Associate Professors

Dr. Hafiz Muhammad Zaheer Aslam

Dr. Azam Saeed

### Assistant Professors

Mr. Qazi Zaka-ur-Rehman

Dr. Humayun Wali

Dr. Muhammad Faheem

Dr. Sidra Jabeen

Dr. Usman Ali

Dr. Umair Aslam

Dr. Umer Afzal

Dr. Muhammad Wasim Tahir

Dr. Muhammad Asif Akhtar

Dr. Ayesha Irshad

Ms. Saira Bano

Dr. Farhan Javed

Dr. Hirra Anjum

### Lecturers

Mr. Rizwan Ali

Mr. Aamir Abbas

Ms. Hafiza Aroosa Aslam Khan

Ms. Sobia Anwar

### Mission

The mission of the Undergraduate program of the Department of Chemical Engineering encompasses three (3) key aspects:

- 1. Education:** To offer an outstanding academic program to enable graduates master process synthesis, design, and operation's knowledge and develop excellent technical, technological, and leadership skills.
- 2. Research:** To provide a vibrant interdisciplinary research program in engineering science, creating novel and sustainable solutions to serve public interests in areas such as health, energy, and environment.

**3. Social Responsibility:** To promote inclusive, safe, collaborative, and respectful community for learning and work with integrity

### Program Educational Objectives

**PEO-01:** Demonstrate proficiency in Chemical Engineering knowledge through practice and research in engineering, scientific, and complementary disciplines.

**PEO-02:** Achieve professional success with an understanding and appreciation of ethical behavior, social responsibility, and diversity, both as individuals and in team environments.

**PEO-03:** Pursue continued lifelong learning and career growth through professional practice, graduate studies, and other training programs in engineering sciences and management.

### Courses of study

The Department offers courses of study leading to the following degrees:

- a) B.Sc. Chemical Engineering
- b) M.Sc. Chemical Engineering
- c) Ph.D. Chemical Engineering

The curriculum for the Bachelor's course has evolved over a number of years and is designed to prepare the students for design, operation, and supervision of chemical process plants as well as for research and development work in the process industry. Study tours and inspection trips are an essential component of the curriculum, which enable the students to visit industrial plants and projects of national importance in chemical industry. The students are assigned projects involving design and other aspects of Chemical Engineering. Emphasis is given to the use of computers in problem solving and design of equipment and plants.

### Laboratories and other Facilities

The Department has well-equipped and well-maintained laboratories in the following fields:

- Chemical Engineering Thermodynamics
- Computer Applications and Process Simulation
- Environmental Engineering
- Heat Transfer
- Instrumentation and Control
- Process/Wet Analysis
- Chemical Reaction Engineering
- Energy Engineering
- Fluid Flow
- Instrumental Analysis
- Mass Transfer

The Instrumental Analysis laboratory is equipped with state-of-the-art equipment including Atomic Absorption Spectrophotometer, Bomb Calorimeter, Elemental Analyzer, Fourier Transform Infrared Spectrophotometer (FTIR), Gas Chromatograph (GC), High Performance Liquid Chromatograph (HPLC), and Ultraviolet (UV) Spectrophotometer.

The Department has a computer center equipped with latest systems. Apart from learning computer languages and applications in various courses of Chemical Engineering, the students are encouraged to use this laboratory for their design projects, research dissertations, and class assignments.

The Department has a well-organized library with a large number of textbooks, handbooks, reference books, journals, design projects, and research these submitted in the past. Latest publications are regularly added to the collection to cope with the modern research in the field.

## B.Sc. Chemical Engineering

## Semester 1

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
ChE-101	Industrial Stoichiometry – I	3	0
CS-101 & CS-101L	Computing Fundamentals	2	1
CY-142 & CY-142L	Physical and Analytical Chemistry	2	1
HU-111L	Communication Skills	0	1
Ma-113	Calculus and Analytic Geometry	3	0
ME-122L	Engineering Drawing	0	2
QT – 101	Translation of the Holy Qur'an -I	1	0

## Semester 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
ChE-108	Fluid Flow-I	3	0
ChE-104	Health and Safety at Workplace	2	0
ChE-109 & ChE-109L	Chemical Process Industries	2	1
IS-101 or Hu-101	Islamic and Pakistan Studies-I (Muslim students) or Ethics and Pakistan Studies-I (non-Muslim students)	3	0
Ma-118	Applied Mathematics and Statistics	3	0
ME-100L	Workshop Practice	0	1
PHY-113 & PHY-113L	Applied Physics	2	1

## Semester 3

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
ChE-201	Industrial Stoichiometry – II	3	0
ChE-203 & ChE-203L	Particle Technology	3	1
ChE-204 & ChE-204L	Chemical Engineering Thermodynamics – I	3	1
CY-221 & CY-221L	Inorganic and Organic Chemistry	2	1
HU-221L	Technical Writing and Presentation Skills	0	1
MA-233L	Applied Mechanics	0	1
QT – 201	Translation of the Holy Qur'an -II	1	0

## Semester 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
ChE-208 & ChE-208L	Fluid Flow-II	3	3
ChE-209 & ChE-209L	Process Heat Transfer	2	2
ChE-210 & ChE-210L	Separation processes-I	1	1
EE-140 & EE-140L	Electrical Technology	3	3
IS-201 or HU-201	Islamic and Pakistan Studies-II (Muslim students) or Ethics and Pakistan Studies-II (non-Muslim students)	0	0

## Semester 5

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
ChE-301 & ChE-301L	Chemical Reaction Engineering	3	1
ChE-311	Engineering Materials	2	0
ChE-312 & ChE-312L	Unit Processes	2	1
ChE-304	Chemical Engineering Thermodynamics – II	3	0
MA-240 & MA-240L	Numerical Analysis	2	1
MGT-413	Entrepreneurship	3	0

## Semester 6

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
ChE-313	Chemical Process Design & Economics	3	0
ChE-314	Chemical Engineering Mathematics	2	0
ChE-310 & ChE-310L	Separation Processes-II	2	1
ChE-307	Transport Phenomena	3	0
ChE-308 & ChE-308L	Energy Engineering	3	1
ChE-315L	Process Modeling and Simulation	0	2
QT – 301	Translation of the Holy Qur'an -III	1	0

## Semester 7

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
ChE-401	Chemical Reactor Design	2	0
ChE-409	Chemical Process Equipment Design and Rating	3	0
ChE-432 to ChE-441	Elective-I	2	0
ChE-404 & ChE-404L	Instrumentation and Control	3	1
ChE-410	Engineering Management	2	0
ChE-411	Final Year Project – I	0	3

## Semester 8

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
ChE-406 & ChE-406L	Environmental Engineering	3	1
ChE-432 to ChE-441	Elective-II	2	0
ChE-421 to ChE-431	Elective-III	3	0
ChE-421 to ChE-431	Elective-IV	3	0
ChE-412	Final Year Project – II	0	3
QT – 401	Translation of the Holy Qur'an -IV	1	0



## DEPARTMENT OF POLYMER AND PROCESS ENGINEERING

### Dean

Prof. Dr. Ing. Naveed Ramzan

### Chairman

Prof. Dr. Asif Ali Qaiser

### Associate Professors

Dr. Atif Javaid  
Dr. Farhan Saeed

### Assistant Professors

Dr. Yasir Qayyum Gill

Dr. Muhammad Sarfraz

Dr. Rabia Nazar  
Dr. Umer Mahmood  
Dr. M. Farooq  
Dr. Aamir Shehzad

### Introduction

Polymer is emerging field of research and industrial commercialization that is finding a widespread and fast-growing use ranging from the consumer market to specialized industrial and defense applications. In Pakistan, the polymer industry is one of the fastest growing sectors that needs trained manpower and research support. Keeping this in view, the undergraduate degree program in Polymer and Process Engineering was launched, in 2002, under the Polymer Engineering Division of the Department of Chemical Engineering. As a result of a far-reaching ambition, and keen vision which led to the realization of the increasingly important role that Polymer Engineering plays in the world today, the university decided to upgrade the division into an independent degree awarding department in January 2006. Further to this development, the postgraduate degree program in Polymer & Process Engineering was started in 2007.

The Department of Polymer and Process Engineering has already gained considerable prestige and standing in the academic and industrial world due to motivated and outstanding faculty, hardworking and dedicated administration, and state-of-the-art laboratories costing more than 100 million rupees.

### Programs being offered

The Department offers following degree programs:

- a) B.Sc. Polymer Engineering
- b) M.Sc. Polymer and Process Engineering
- c) M.S. Polymer Science and Technology
- d) P.hD. Polymer Science and Engineering

### Mission

To inculcate application-oriented knowledge of polymer engineering so that the graduates should serve the industrial and research sectors with their developed analytical and design abilities showing high moral values and professional competency.

### Program Educational Objectives (PEOs)

- PEO-01:** Technical Proficiency: Graduates will be technically competent and creative in all major aspects of polymer and process engineering as well as supporting math and science disciplines, allowing these graduates to conduct experiments and test, solve problems based on data from these experiments, design new products, materials, and processes, all with a commitment to quality, timeliness, and continuous improvement.
- PEO-02:** Interpersonal Skills and Management: Graduates will exhibit appropriate interpersonal and managerial skills by showing flexibility and adaptability in the workplace, possess the capacity to embrace new opportunities of emerging technologies and embrace leadership and teamwork opportunities, all affording sustainable engineering careers.
- PEO-03:** Work ethics: Graduates will exhibit professional work ethics including an interest in personal and professional growth.
- PEO-04:** Awareness of Societal Impact: Graduates will be aware of how their professional role will impact the global community and will act with global, ethical, societal, ecological, and commercial awareness expected of practicing engineering professionals.
- PEO-05:** Effective Communication: Graduates will be skilled in written and oral communication to effectively convey technical content.

All these areas have applications and relevance to the polymer manufacturing industry and various research organizations in the public sector. Our goals are to advance scientific and engineering knowledge in these areas, to disseminate the information, and transfer this knowledge to the industry. Many aspects of our research are interdisciplinary by nature, involving fruitful collaboration with other academic areas across traditional academic boundaries.

### Laboratories and Other Facilities

Our laboratories fall into four categories:

- Undergraduate Teaching Laboratories
- Industrial Testing and Product Development Laboratories
- Research Laboratories
- Process Engineering Laboratories

#### 1. Undergraduate Teaching Laboratories

- Fundamentals of Polymer Engineering
- Polymer Reaction Engineering
- Polymer Analysis & Characterization
- Rubber Compounding and Processing
- Polymer Structures & Synthesis
- Simulation in Polymer Processing
- Polymer Processing Design

#### 2. Research Laboratories

- Polymer Synthesis & Modification
- Polymer Testing
- Conducting Polymer & Membrane Research
- Polymer Analysis & Characterization
- Advanced Polymer Composites and Blends



### 3. Industrial Testing & Product Development

- Plastic Pipe Testing and Quality Assurance
- Plastic Materials and Products Testing under ASTM, ISO & PS Standards
- Paints and adhesive testing
- PE Film Testing

### 4. Process Engineering Laboratories

- Process Heat Transfer
- Mass Transfer
- Particle Technology
- Fluid Flow
- Instrumentation & Control
- Process Engineering Computing

### Strong Internship Program

The productive collaboration with the industry has resulted in ample internship opportunities for our students. The Department provides 100 % Internship to its 4<sup>th</sup> year and many juniors, as well.

### Careers in Polymer & Process Engineering

Polymers have numerous possibilities in structural, electrical, mechanical, and medical applications due to their unique physical properties and ability to be tailored through chemistry, cross-linking, and surface modification. Polymers are the most rapidly growing sector of the materials industry. As polymer production has grown, so has the number of people who work in this field.

Our graduates find jobs in:

- Polymer producing companies such as PVC, PET, and other resins.
- Polymer Packaging industries.
- Plastic (PVC, PPRC etc.) pipe making industries.
- Automotive, foams, paints, and flexible films industries etc.
- Research and product development in polymer synthesis (current hot topics include biodegradable polymers and compatibilizers for recycling polymers).

The reception by the industry to our graduates in the past years has been remarkable. Demand is ever-growing. Some of the employers of our graduates are Packages (Pvt) Limited, Engro Polymer Karachi, Descon Engineering Pvt. Limited, Attock Oil Refinery, Pakistan Petroleum, National Refinery, Fauji Fertilizer Company, Fatima Fertilizers, Engro Fertilizers, Lotte PTA, Popular Pipes, Panther Tires and Service Industries Pvt. Ltd, Awan sports, Roshan Packages, SPEL.

Our graduates find a promising scope in higher studies both in Pakistan and overseas. The advanced and multidisciplinary nature of B.Sc. Polymer Engineering Degree has exceptional acceptability, particularly in the overseas academic world. Each year, a number of our graduates proceed abroad on scholarships pursuing their higher studies.

## B.Sc. Polymer Engineering

**Semester 1**

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PPE-107	Engineering Materials	3	0
HU-111	Communicational Skills	0	1
LCS-101	Computing Fundamentals	2	1
CY-161	Polymer Chemistry-I	2	1
MA-113	Calculus and Analytical Geometry	3	0
IS-101	Islamic and Pakistan Studies I or HU 101 Ethics and Pakistan Studies-I	3	0
QT-101	Translation of the Holy Qur'an-I	1	0

**Semester 3**

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PPE-207 & PPE- 207L	Fluid Flow	3	1
PPE-208 & PPE- 208L	Polymer Structures & Synthesis (CY-161)	3	1
PPE-209	Chemical & Petrochemical Industries	3	0
PPE-210	Thermodynamics	3	0
HU-221L	Technical Writing & Presentation Skills	0	1
QT-201	Translation of the Holy Qur'an-II	1	0

**Semester 5**

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PPE-313 & PPE-313L	Mass Transfer	3	1
PPE-314	Mechanical Properties of Polymers (PPE-108)	3	0
PPE-315 & PPE-315	Polymer Reaction Engineering (PPE-208)	3	1
PPE-316	Polymer Compounding & Blending (PPE-108)	3	0
PPE-317	Transport Phenomena	3	0
QT-301	Translation of the Holy Qur'an-III	1	0

**Semester 7**

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PPE-418	Entrepreneurial Management	3	0
PPE-416	Final Year Project-I (PPE-318)	0	3
PPE-413 & PPE-413	Process Plant Design (PPE- 207,211,313,315)	3	1
PPE-4XX	Elective-I	3	0
PPE-4XX	Elective-II	3	0
QT-401	Translation of the Holy Qur'an-IV	1	0

**Semester 2**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PPE-108 & PPE-108L	Fundamentals of Polymer Engineering	3	1
PPE-109	Industrial Stoichiometry	3	0
PPE-110 & PPE-110	Particle Technology	2	1
LMA-118	Applied Mathematics & Statistics	3	0
ME 100	Workshop Practice	0	1
LEE-101	Applied Electricity	3	1

**Semester 4**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PPE-211 & PPE-211L	Heat Transfer	3	1
PPE-212	Environmental Engineering & Process Safety	3	0
PPE-213 & PPE-213L	Polymer Processing Operations (PPE-108)	3	1
PPE-215	Engineering Economics	3	0
PPE-214L	Process Engineering Computing	0	1
IS-201	Islamic and Pakistan Studies II or HU 201 Ethics and Pakistan Studies-II	3	0

**Semester 6**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PPE-318 & PPE-318L	Polymer Analysis & Characterization (PPE-108)	3	1
PPE-319 & PPE-319	Instrumentation & Control	3	1
PPE-320	Polymer Composites	3	0
PPE-321	Polymer Rheology	3	0
PPE-322	Total Quality Management	3	0

**Semester 8**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PPE-414	Polymer Product Design (PPE-108)	3	0
PPE-415 & PPE-415L	Polymer Processing Design & Simulation (PPE-213)	3	1
PPE-417	Final Year Project-II (PPE-416)	0	3
PPE-4XX	Elective-III	3	0
PPE-4XX	Elective-IV	3	0



## DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

### Dean

Prof. Dr.-Ing Naveed Ramzan

### Chairman

Prof. Dr.-Ing Furqan Ahmed

### Mission

To produce Metallurgical and Materials Engineers with strong professional knowledge, sound ethical values, a passion for lifelong learning and keen sense of social responsibilities. The graduates are trained for their active role in academia, industry and R&D sector at national and international level keeping in view the latest trends and maintaining the standards in the field.

### Introduction

The Department of Metallurgical and Materials Engineering has successfully provided the students with the high quality of education and training in the field of advanced metals and modern materials. A well-trained and dedicated faculty together with well-equipped laboratories makes it one of the most accomplished departments. The total enrollment of students in the Department is 250.

### Courses of Study

The educational objective of Bachelor's degree program is to produce graduates with string understanding of science and engineering concepts of both

### Professor

Prof. Dr. Muhammad Asif Rafiq

### Associate Professors

Dr. Ather Ibrahim  
Dr. Muhammad Zain Ul Abdein

### Assistant Professors

Dr. Ehsan Ul Haq  
Dr. Adnan Maqbool  
Dr. Muhammad Asif Hussain

metals and modern materials. The curriculum has been designed for the metallurgy courses being offered in this program ranging from relevant concepts of extractive, industrial and physical metallurgy to the science and design of different modern metals and alloys used in engineering applications. In materials engineering courses being offered with the focus on material synthesis, processing and characterization techniques. Students are taught the fundamentals and trained for the refinement, selection, processing and design of modern materials including polymers, ceramics, bio-materials, nanomaterials, and composites.

To produce the graduates maintaining a professional standard, exposure to an integrated knowledge based on mathematics, chemistry, physics and management sciences is also emphasized. Instructional tours to metallurgical industries, material development industries, and research organizations are frequently arranged to help the students to relate their theoretical knowledge with industrial practices. Educational seminars of the personals from industry and national and international institutes are also arranged to keep the students up to data with the international market demands. The students are also engaged in internships with different metallurgical and materials related organizations every year for practical training. The internships help the students to develop their academic concepts and prepare themselves to tackle the practical problems of the industry.

### Laboratories and Other Facilities

The department's academic activity is based on the following main disciplines:

- Physical Metallurgy
- Ferrous and Non-Ferrous Materials
- Ceramic Materials
- Bio and Nano-Materials
- Corrosion and Corrosion Prevention
- Heat Treatment
- Mechanical Metallurgy and Mechanics of Materials
- Polymeric Materials
- Composite Materials
- Electric and Magnetic Materials
- Foundry Engineering

Department is equipped with the following laboratories:

- Ceramic and Composites
- Inspections and Testing of Materials
- Corrosion and Protection
- Foundry Engineering
- Heat Treatment
- Polymeric Materials
- Welding and Joining of Materials
- Metallography
- Computer
- Mechanical Workshop

The Department has a library with over thirteen hundred handbooks, textbooks, and reference books for faculty members and students. The library is provided with internet facility to access the HEC digital library and research articles from national and international web sources. Department has a computer laboratory that is equipped with some advanced simulation software for the students to have hands on experience on the modern tools of materials engineering.

### Careers in Metallurgical and Materials Engineering

Career opportunities in Metallurgical and Materials Engineering both at home and abroad are excellent. Metallurgical and materials engineering focuses on engineering materials, their extraction, processing, design, development, manufacture, properties, and industrial applications etc. The engineers in this field can find jobs in industries like nuclear, chemical, electrical, microelectronics, construction as well as defense sector. They can also make their careers in the fields like iron & steel, non-ferrous alloys, polymeric materials, ceramic materials, composites, electronic & magnetic materials, corrosion & its prevention.

## B.Sc. Metallurgical Engineering

**Semester 1**

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
EE 199	Basic Electrical and Electronics Engineering	3	1
ME 122L	Engineering Drawing	0	2
MME 101	Introduction to Metallurgy and Materials	3	1
IS 101	Islamic and Pakistan Studies-I	3	0
MA 111	Applied Mathematics-I	3	0

**Semester 2**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHY 114	Applied Physics	2	1
CY 151	Material Chemistry-I	2	1
ME 100L	Workshop Practice	0	1
HU 111L	Communication Skills	0	1
MME 102	Mechanics of Materials	2	0
MA 112	Applied Mathematics-II	3	0
MME 103	Industrial Safety and Environmental Engineering	3	0

**Semester 3**

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MME 201	Fuels and Furnaces	2	0
MME 210	Foundry Engineering	3	1
IS 201	Islamic and Pakistan Studies-II	3	0
MA 240	Numerical Analysis	2	1
HU 221	Technical Writing & Presentation Skills	3	0
MME 202	Applied thermodynamics	3	0

**Semester 4**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MME 211	Physical Metallurgy	3	1
MME 203	Powder Metallurgy	3	0
MME 204	Polymeric Materia	3	1
MME 205	IsIron and Steel Making Processes	3	0
MA 242	Engineering Statistics	3	0

**Semester 5**

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MME 311	Mechanical Behavior of Engineering Materials	3	0
MME 312	Ceramic Materials	3	1
MME 301	Electrical and Magnetic Materials	3	0
MME 302	Non-Ferrous Extractive Metallurgy	3	0
MME 303	Inspection and Quality Assurance	3	1

**Semester 6**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MME 304	Process Control and Instrumentation	2	0
MME 321	Heat Treatment and Phase Transformation (MME 211)	3	1
MME 305	Welding and Joining of Materials	3	1
MME 306	Industrial and Financial management	3	0
MME 307L	Computational Methods in Materials Engineering	0	2
MME 308	Characterization of Engineering Materials	3	0

**Semester 7**

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MME 420	Solidification of Metals and Alloys (MME 210)	3	1
MME 421	Metal Working Processes (MME 311)	3	0
MME 422	Advance Ceramics (MME 312)	3	0
MME 401	Nuclear Materials	2	0
MME 402	Nano Materials	2	0
MME 411	Final Project-I	0	3

**Semester 8**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MME 403	Composite Materials	3	1
MME 404	Corrosion and Corrosion Control	3	1
MME 405	Surface Science and Engineering	2	0
MME 406	Bio Materials	2	0
MME 407	Vacuum Technology	2	0
MME 412	Final Project-II (MME 411)	0	3

Faculty of  
Earth Sciences & Engineering





## DEPARTMENT OF MINING ENGINEERING

### Dean

Prof. Dr. Muhammad Zubair Abubakar

### Associate Professors

Dr. Shahab Saqib  
Dr. Yasir Majeed

Dr. Muhammad Zaka Emad  
Dr. Muhammad Shahzad  
Dr. Muhammad Usman Khan

### Chairman

Prof. Dr. Zulfiqar Ali

### Assistant Professors

Dr. Muhammad Badar Hayat  
Dr. Muhammad Azeem Raza

### Lecturers

Mr. Mirza Muhammad Zaid  
Mr. Muhammad Mansoor Iqbal

### Introduction

The Department of Mining Engineering was established in 1954, as part of the Maclagan Engineering College, and has the distinction of being the first in the country to offer a formal degree course in Mining Engineering. Mining Engineering program has the tradition, history and repute of producing quality mining engineers who are serving both nationally and internationally.

### Mission

The mission of the department is to continue to improve and maintain quality graduate program, that is well supported by a modern and up-to-date curriculum and labs, and qualified faculty, and to produce technically competent and disciplined mining engineers who possess the required leadership and team skills and can compete in the global job market.

### Program Education Objectives (PEOs)

The mining engineering graduates will be able to:

**PEO-01:** Mining engineering graduates demonstrate sound analytical, technical and design capabilities to cope with latest global advances in mining



engineering practices.

**PEO-02:** Mining engineering graduates can comprehend, exercise, and innovate solutions to engineering problems, on-going research, and global issues.

**PEO-03:** Mining engineering graduates are aware of societal issues and their professional and ethical responsibilities, including health, safety, environmental, and legal aspects and Corporate Social Responsibility.

**PEO-04:** Mining engineering graduates have leadership aptitude, teamwork spirits, and inter-personal skills and embrace lifelong learning to foster individual as well as organizational goals in diverse settings.

### Courses of Study

The Department offers the following degree programs:

- a) B.Sc. Mining Engineering
- b) M.Sc. Mining Engineering
- c) M.Sc. Tunneling and Underground Excavation Engineering
- d) Ph.D. Mining Engineering

The curriculum for the Bachelor's degree in Mining Engineering is broad-based in its contents and is designed to produce graduates who can cope with a wide range of tasks, which a mining engineer is called upon to perform. It offers basic subjects in science and engineering in the first two years; in the later two years it covers the relevant subjects in mining operations, geology, management and mine environment in detail. The graduate students are prepared to handle the geotechnical problems related to surface and underground excavations, the extraction and beneficiation of coal and other minerals, and other rock and mine/mineral related problems.

### Career Choices and Job Placement

A degree in Mining Engineering offers attractive careers both in private and public sectors. The private sector jobs include coal mining, cement industry, hydro-power projects, tunneling and underground construction projects, and coal energy sector.

The government sector, where the mining engineers are employed, includes the Mines and Minerals Department, Govt. of Punjab, the Inspectorate of Mines, Pakistan Mineral Development Corporation (PMDC), Punjab Mineral Development Corporation (PUNJMIN), Pakistan Atomic Energy Commission, and National Development Complex (NDC), etc.

### Field Training and Internships

Industrial tours and field internships are an integral part of the mining engineering curriculum and are arranged for the students on regular basis. In addition, two to three week summer field surveying camp and a week-long first aid training camp are also compulsory requirements for the completion of the degree program.

### Laboratory and Other Facilities

The department has the following major laboratories:

- Mineral Processing
- Rock Mechanics
- Applied/ Structural Geology
- Explosives Engineering
- Mine Design and Simulation
- Mine Surveying
- Mine Environment
- Mine Safety and Rescue
- Excavation Engineering

Other facilities include a well-stocked library in the department, a computer center and a graduate study room. Some of the key equipment in our department includes a 200-Ton Universal Testing Machine, Rock abrasively and Brittleness test set-ups and a total survey station.

## B.Sc. Mining Engineering

**Semester 1**

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MA-113	Calculus & Analytic Geometry	3	0
ME-122L	Engineering Drawing	0	2
Min-E-110	Applied Geology	3	1
CY-143	Physical and Industrial Chemistry	3	1
ME-100L	Workshop Practice	0	1
IS-101	Islamic & Pakistan Studies-I	3	0

**Semester 3**

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MA-228	Differential Equations	3	0
MA-235	Engineering Mechanics	2	1
CE-231	Fluid Mechanics-I	3	1
ME-210	Applied Thermodynamics	3	1
IS-201	Islamic & Pakistan Studies-II	3	0

**Semester 5**

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Min-E-350	Rock Mechanics	3	1
Min-E-351	Mineral Exploration	3	1
MA-240	Numerical Analysis	2	1
Min-E-353	Mine Ventilation	3	1
Geo-E-353	Introduction to GIS and Remote Sensing	2	1

**Semester 7**

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
IME-371	Engineering Economics	2	0
MGT-410	Project Management	3	0
Min-E-470	Tunneling and Excavation Engineering	3	1
Min-E-473	Mining and Environment	2	0
Min-E-472	Mineral Processing	3	1
Min-E-475	Senior Design Project-I	0	3

**Semester 2**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHY 114	Computing Fundamentals	2	1
CY 151	Basic Electrical and Electronics Engineering	3	1
ME 100L	Applied Physics	2	1
HU 111L	Communication Skills	0	1
MME 102	Stratigraphy and Structural Geology	2	1
MA 112	Mining Engineering Fundamentals	3	0
MME 103	Translation of the Holy Quran-I	1	0

**Semester 4**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MA-234	Linear Algebra	3	0
MA-242	Engineering Statistics	3	0
ME-220	Mechanics of Materials	3	1
HU-221	Technical Writing and Presentation Skills	3	0
Min-E-240	Surveying	3	2
QT-201	Translation of the Holy Quran-II	1	0

**Semester 6**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Min-E-352	Mine Power Drainage & Material Handling	3	1
Min-E-360	Ground Control Engineering	3	0
Min-E-361	Underground Mine Design	3	0
Min-E-362	Surface Mine Design	3	0
Min-E-363	Explosives Engineering	3	1
QT-301	Translation of the Holy Quran-III	1	0

**Semester 8**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Min-E-484	Mine Hazards, Safety and Health Management	3	1
#	Social Science Elective*	3	0
#	Technical Elective\$	3	0
Min-E-483	Mining Law	1	0
Min-E-485	Senior Design Project-II	0	3
QT-401	Translation of the Holy Quran-IV	1	0

**NOTE:** First Aid Training and Field Survey Camp are mandatory. #: Course number of the offered elective course will be used

\*: From offered Social Science Elective Courses

\$: From the offered Technical Elective Courses

### Social Science Electives

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
To be offered by Humanities department	Sociology	3	0
To be offered by Humanities department	Understanding of Psychology and Human Behavior	3	0
Min-E-403	Organizational Behavior	3	0
Min-E-404	Professional Ethics	3	0
MGT-413	Entrepreneurship	3	0

### Technical Electives

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Min-E-421	Coal Technology	3	0
Min-E-422	Solution Mining	3	0
Min-E-423	Operations Research	3	0
Min-E-425	Cement Technology	3	0
Min-E-426	Commercial Explosive Handling and storage	3	0
Min-E-427	Drilling Technology	3	0





DEPARTMENT OF  
GEOLOGICAL  
ENGINEERING

## DEPARTMENT OF GEOLOGICAL ENGINEERING

### Dean

Prof. Dr. Muhammad Zubair Abu Bakar

### Associate Professor

Dr. Muhammad Arshad

### Lecturers

Mr. Ahsan Mehmood  
Ms. Maryum Zameer Khan  
Mr. Umer Waqas  
Mr. Atif Ismail

### Chairman

Prof. Dr. Muhammad Farooq Ahmed

### Assistant Professors

Ms. Sadia Ismail  
Dr. Hafiz Muhammad Awais Rashid  
Dr. Ghulam Mohyuddin Sohail

### Mission

To develop scientific and engineering knowledge and equip its graduates with modern skills in geological engineering, enabling them to become leaders in engineering practices and research for the socio-economic development at national and international levels.

### Program Education Objectives (PEOs)

- PEO-01:** Demonstrate the proficiency of applying the scientific and engineering knowledge to identify, analyze and investigate the issues related to geological engineering practice.
- PEO-02:** Express the ability and skills to utilize the modern tools to solve complex engineering problems with due environmental considerations.
- PEO-03:** Exhibit the quality to work as an individual or in a team with leadership skills to design and supervise infrastructure projects by following professional ethics and adequate safety measures.
- PEO-04:** Display the spirit of discipline, effective communication, continuous professional improvement and management skills while working in a globally competitive environment.

In the 21<sup>st</sup> century, the most vital challenge faced is the preservation and efficient utilization of Geo-Space and its resources without disturbing the

ecological balance. The Geological Engineering degree program aims to come up with engineering solutions, which can meet the challenges in the field of geotechnical engineering, rock mechanics and tunneling, natural energy resources exploration and to give solution to the environmental impact of groundwater resources. Geological Engineering discipline was introduced in 2001, for the first time, in the country by the University of Engineering and Technology, Lahore, under the Mining Engineering Department. In view of the national demand and popularity of the degree program, an independent Department of Geological Engineering was established in January 2006.

The primary objective of the program is to provide professional engineers in the field of:

- Rock Engineering and Geotechnical Engineering
- Natural Energy Resources Exploration
- Geoenvironmental Engineering

The department is currently offering the following degrees:

- |                                 |                                 |
|---------------------------------|---------------------------------|
| a) B.Sc. Geological Engineering | b) M.Sc. Geological Engineering |
| c) M.Sc. Geological Sciences    | d) Ph.D. Geological Engineering |

### Field Visits and Instructional Tours

Field visits and instructional tours are an essential part of B.Sc Geological Engineering degree program. The Department arranges a number of instructional tours to different areas where students are exposed to different aspects of this degree program and beautiful landscapes. In such an environment, students learn professional skills enthusiastically and relish the field trips. In addition to instructional tours, survey camp and field geology camp are also conducted, which are considered mandatory for the completion of the degree. The most famous locations for the instructional tours are Abbottabad, Mansehra, Muzaffarabad, Khewra Gorge, Namal Gorge, Salt Range, Dam sites (Tarbela, Mangla, Khanpur, Neelum-Jhelum, etc.), different oil/gas drilling rig sites and visits to different construction sites. These tours give the students necessary exposure to the natural field conditions and prepares them to work in the field. Sometimes the students with an exceptional academic record can get the opportunity to visit abroad for advanced learning under funding offered by international agencies.

### Liaison/Internship with Industry

The department has established continuing links with the geotechnical and petroleum industries. As a result, many national and multinational organizations are providing internships for practical training. Leading companies, including NESPAK, WAPDA, MMP, Berkeley Associates, NDC, ACE, OGDCL, NURICON, Punjab Mineral Company, etc., also offer internships and job.

### Collaboration with International Universities

The Department of Geological Engineering is currently collaborating with Saitama University, Japan. This research and academic collaboration mainly focuses on promoting mutual research projects and the exchange of faculty and students between the Department of Geological Engineering and the Department of Civil and Environmental Engineering, Saitama University, Japan.

### Departmental Laboratories

- |                       |                                |
|-----------------------|--------------------------------|
| · Engineering Geology | · Geotechnical Engineering     |
| · Geophysics          | · Excavation Engineering       |
| · Hydrogeology        | · Geoenvironmental Engineering |
| · Physical Geology    | · Mineralogy and Petrology     |
| · Computing           |                                |

### Key Research Areas

- |   |   |
|---|---|
| · Engineering Geology                     | · Geotechnical and Geo-Mechanics          |
| · Geophysical Exploration                 | · Non-Explosive Rock Fragmentation        |
| · Tunnel Design and Mechanical Excavation |   |
| · Geotechnical Instrumentations           | · Geoenvironmental Engineering            |
| · Hydrogeology and Environment            | · Drilling and Petrophysical Well Logging |
| · Petroleum Related Rock Mechanics        | · Borehole Geomechanics                   |

## B.Sc. Geological Engineering

**Semester 1**

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
EE-199	Basic Electrical and Electronics Engineering	3	1
MA-113	Calculus and Analytic Geometry	3	0
CY-143	Physical and Industrial Chemistry	3	1
ME-122L	Engineering Drawing	0	2
Geo-E-110	Physical Geology	3	1

**Semester 3**

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MA-235	Engineering Mechanics	2	1
MA-242	Engineering Statistics	3	0
ME-210	Applied Thermodynamics	3	1
CE-231	Fluid Mechanics-I	3	1
GEO-E-230	Mineralogy and Petrology	2	1
QT-201	Translation of the Holy Quran-II	1	0

**Semester 5**

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
GEO-E-350	Engineering Geology	3	1
GEO-E-351	Geotechnical Engineering I	3	1
GEO-E-352	Petroleum Geolog	2	1
GEO-E-353	Introduction to GIS/RS	2	1
MIN-E-350	Rock Mechanics	3	1

**Semester 7**

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
GEO-E-470	Petrophysics & Well Logging Hydrogeology	3	1
GEO-E-471	Geotechnical Engineering II	3	1
GEO-E-472	Tunneling and Excavation Engineering	3	1
MIN-E-470	Senior Design	3	1
GEO-E-475	Project I	0	3

**Semester 2**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHY-117	Applied Physics	2	1
MA-116	Linear Algebra And Differential Equations	3	0
Geo-E-120	Structural Geology and Stratigraphy	2	1
CS-101	Computing Fundamentals	2	1
HU-111	Communication Skills	0	1
IS -101	Islamic& Pakistan Studies-I (Compulsory for Muslim Students)-Ethics & Pakistan Studies (Compulsory for non-Muslim Students)	3	0
ME-100L	Workshop Practice	0	1
QT-101	Translation of the Holy Quran-I	1	0

**Semester 4**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MA-240	NumerAical Analysis	2	1
MIN-E-240	Surveying	3	2
ME-220	Mechanics of Materials	3	1
HU-221	Technical Writing and Presentation Skills	3	0
IS -201	Islamic& Pakistan Studies- II (Compulsory for Muslim Students)-Ethics & Pakistan Studies (Compulsory for non-Muslim Students)	3	0

**Semester 6**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
GEO-E-360	Drilling Engineering	2	1
GEO-E-361	Introduction to Geophysical Exploration Techniques	3	1
GEO-E-362	Earthquake Seismology & Risk Assessment	2	1
IME-374	Engineering Economics	3	0
MIN-E-363	Explosives Engineering	3	1
QT-301	Translation of the Holy Quran-III	1	0

**Semester 8**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MGT-408	Project Management	3	0
GEO-E-480	Environmental Geology & Hazardous Waste Management	3	1
GEO-E-481	Pavement & Foundation Engineering	2	1
GEO-E-485	Senior Design Project II	0	3
QT-401	Translation of the Holy Quran-IV	1	0



## DEPARTMENT OF PETROLEUM & GAS ENGINEERING

### Dean

Prof. Dr. Muhammad Zubair Abubakar

### Chairman/ Professor

Prof. Dr. Muhammad Khurram Zahoor

### Assistant Professors

Mr. Azam Khan

Dr. Arshad Raza

Dr. Arshad S. A. Shahid

### Lecturers

Mr. Muhammad Rizwan Latif

Mr. Muhammad Kashif Ali

Mr. Hasan Jehanzaib

Mr. Mahwish Akram

### Introduction

The Department of Petroleum and Gas Engineering has the distinction of being the pioneer in the country to offer degree programs in Petroleum and Gas Engineering. It was first instituted in 1969 as a division of Mining Engineering Department. Realizing the importance of the discipline and the department by the national petroleum sector, a full-fledged department of Petroleum and Gas Engineering was established in 1975.

The department has been the major contributor towards endowing and establishing the profession of Petroleum Engineering in Pakistan and has always maintained a leading role in petroleum engineering education. It is now almost two decades that the department started the postgraduate programs and has since strengthened its research capabilities over the years. The department offers degree program at Undergraduate and Postgraduate levels in Petroleum & Gas Engineering.

### Mission Statement

To transform young brains into brilliant Petroleum Engineers, through modern teaching and research, to achieve professional excellence in oil and gas industry for sustainable socio-economic development.

### Program Education Objectives (PEOs)

The education objectives of Petroleum and Gas Engineering program are as follows:

- PEO-01:** To equip graduates with updated engineering knowledge and research skills for examining and solving complex industry problems in a cost-effective manner.
- PEO-02:** To enhance graduates' interpersonal, teamwork and management skills while focusing on socio-economic development in an eco-friendly manner.
- PEO-03:** To develop an aptitude for lasting personal capacity-building through continued professional development, along with integrity and a sense of ethical norms and values

The curriculum is diversified and includes courses in Production Engineering, Artificial Lift Methods, Reservoir Engineering, Petroleum Fluid Properties, Enhanced Oil Recovery Techniques, Well Testing, Well Logging, Natural Gas Transmission & Distribution, Rock Properties, Petroleum Economics, Storage Problems and many other related subjects. In addition to these, strong support of basic sciences courses at different levels is also a part of the curriculum.

Actual field data and related problems are included in the courses to develop field-oriented approach in the students. The spread of the course contents is broad enough to groom the graduates for any major area of petroleum engineering profession. Students are provided opportunities to visit oil and gas fields to familiarize themselves with the tasks and operations they have to undertake in their professional career.

### Laboratories and Other Facilities

The department has following laboratories to meet academic and research needs of both students and faculty members:

- Petroleum Reservoir Fluids
- Drilling Engineering
- Gas Engineering
- Petrophysics
- Computer/Reservoir Simulation

The department has the facility of a well-stocked library as well. There are more than 2000 books in the library. The Japanese aid, through JICA Program for laboratory equipment, resulted in upgradation of laboratories. Apart from university merit scholarships, students have opportunity to avail scholarship from the local industry, District Government and Zakat Fund. Majority of students get financial support from these scholarships.

The research areas of the faculty include reservoir engineering, production engineering, drilling engineering, enhanced oil recovery, well testing and reservoir simulation. The department is working on a consolidated program to offer professional courses and consultancy services to the industry. The students have the opportunity to carry out comprehensive research projects related to practical industrial problems as part of their final year projects.

The graduates of the department are offered well-paid positions in national and multinational companies. A large number of graduates of the department are serving worldwide including Middle East, Europe, North America, Africa, etc.

### Liaison with the Industry

A key to modern day success in any profession rests with the integrated working environment between different components of that profession. In this regard, it is very important that the institution must have live coordination with relevant industry, so is true for the Department of Petroleum and Gas Engineering. Despite the fact that petroleum industry of Pakistan is clustered in Islamabad and Karachi, the department has successfully managed to establish and strengthen effective coordination.

Students are exposed to the industry through instructional tours, seminars by field experts and summer internships. Thanks to the industry's support, majority of our third year and final year undergraduate students avail summer internships.



### Collaboration with International Universities

The Department of Geological Engineering is currently collaborating with Saitama University, Japan. This research and academic collaboration mainly focuses on promoting mutual research projects and the exchange of faculty and students between the Department of Geological Engineering and the Department of Civil and Environmental Engineering, Saitama University, Japan.

### Departmental Laboratories

- Engineering Geology
- Geophysics
- Hydrogeology
- Physical Geology
- Computing
- Geotechnical Engineering
- Excavation Engineering
- Geoenvironmental Engineering
- Mineralogy and Petrology

### Key Research Areas

- Engineering Geology
- Geophysical Exploration
- Tunnel Design and Mechanical Excavation
- Geotechnical Instrumentations
- Hydrogeology and Environment
- Petroleum Related Rock Mechanics
- Geotechnical and Geo-Mechanics
- Non-Explosive Rock Fragmentation
- Geoenvironmental Engineering
- Drilling and Petrophysical Well Logging
- Borehole Geomechanics



## B.Sc. Petroleum Engineering

**Semester 1**

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Pet.E-101	Fundamentals of Petroleum Engineering	3	0
CS-101	Computing Fundamentals	2	1
HU-111L	Communication Skills	0	1
MA-123	Calculus	3	0
ME-120L	Engineering Drawing & Graphics	0	1
Min-E-110	Applied Geology	3	1

**Semester 3**

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
QT-201	Translation of Holy Quran-II	1	0
Pet. E-203	Petrophysics	2	1
Pet. E-204	Drilling Engineering-I	3	1
CE-213	Strength of Materials	2	1
EE-201	Electrical Engineering and Electronics	2	1
IS-201	Islamic & Pakistan Studies-II	3	0

**Semester 5**

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
QT-301	Translation of Holy Quran-III	1	0
Pet. E-313	Well Logging	2	1
Pet. E-314	Reservoir Engineering	3	1
Pet. E-322	Natural Gas Processing & Pipeline Management	3	1
MA-343	Applied Probability and Statistics	3	0
MA-346	Numerical Methods	3	0

**Semester 7**

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Pet. E-422	Principles of Reservoir Simulation	2	1
Pet. E-424	Well Testing	2	1
Pet. E-425	Petroleum Production Engineering-II	3	1
Ch E-453	Environment & Safety	2	1
Pet. E-491	Project (Phase-I)	0	3

**Semester 2**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
QT-101	Translation of Holy Quran-I	1	0
Pet. E-102	Petroleum Geology & Geophysics	3	0
Pet. E-103	Occupational Health and Safety	1	0
CY-171	Petroleum Chemistry	2	1
IS-101	Islamic & Pakistan Studies-I	3	0
MA-129	Vector and Complex Analysis	3	0
ME-100L	Workshop Practice	0	1
Phy-115	Applied Physics	2	1

**Semester 4**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Pet.E-205	Properties of Reservoir Fluids	3	1
C.E-233	Fluid Mechanics	2	1
Ch E-251	Applied Thermodynamics	3	1
HU-221	Technical Writing & Presentation Skills	3	0
MA-225	Differential Equations and Transforms	3	0

**Semester 6**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Pet. E-306	Drilling Engineering-II	3	1
Pet. E-315	Petroleum Production Engineering-I	3	1
Pet. E-317	Petroleum Economics & Risk Analysis	3	0
Ch E-351	Chemical Technology of Petroleum	3	1
	Natural Science/ Math Electives	02-Mar	1/0

**Semester 8**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
QT-401	Translation of Holy Quran-IV	1	0
Pet. E-421	Field Operations in Petroleum Engineering	3	0
Pet. E-423	Reservoir Management	2	1
Pet. E-429	Principles of Enhanced Oil Recovery	3	1
Pet. E-492	Project (Phase-II)	0	3
MGT-413	Entrepreneurship	3	0

Faculty of  
Architecture & Planning



# Faculty Of Architecture & Planning

## DEPARTMENT OF ARCHITECTURE

### Dean

Prof. Dr. Rizwan Hameed

### Chairman

Prof. Dr. Rizwan Hameed

### Teacher In-charge

Dr. Munazzah Akhtar

### Assistant Professors

Dr. Shama Anbrine  
Dr. Malik Usman Mehmood Awan  
Ar. Quratulain Asghar  
Ar. Mamuna Iqbal  
Ar. Madiha Zaman  
Ar. Qudsia Asif  
Ar. Rabia Ahmed Qureshi

Ar. Adnan Jalil  
Dr. Maryam Siddiq

### Lecturer

Ar. Hina Nabeel

The Department of Architecture has a history spanning over 58 years. Established in 1962, it has the distinction of offering the first-degree program of Architecture in Pakistan. Thus, the Department has been a fundamental contributor towards the founding and establishment of the profession of Architecture in the country. The Department has a large body of alumni with nearly 1500 graduates, and through them, it has the honour and credit of shaping a significant part of the current built environment in Pakistan

Over the decades, the Department has developed sound expertise in various facets of the profession of Architecture. Currently, the faculty of the Department is far surpassing than any other school/department of architecture in the country; in terms of qualification, as well as width and breadth of relevant knowledge base. The Department, thus has not only maintained its leading role in architectural education, it is set to further expand its frontiers through specializations through its Masters and Ph.D. program.

The programs offered in the department are listed as below:

- a) Bachelor of Architecture (B.Arch)
- b) Master of Architecture (M.Arch)
- c) Ph.D. in Architecture

### Bachelor Degree Program in Architecture (B.Arch)

B.Arch is a five-year study program leading to a professional degree in Architecture. Graduates of this program fulfil all licensing requirements of (PCATP), and subject to registration with it, are able to practice Architecture anywhere in Pakistan.

The B.Arch program of study is highly demanding and only those students are recommended to apply who are willing to work long hours. Furthermore, a significant component of studies involve fieldwork, where students are required to visit construction sites, conduct field surveys, and join out of station study tours. B. Arch degree requirements also include 12 weeks of internship in a professional establishment, which would typically take place during summer vacations.

### Graduate Programs in Architecture

The graduate program in architecture was instituted in 1990. By now, it has matured and includes M. Arch and Ph.D. programs. The M. Arch is primarily a taught course which culminates in a dissertation by research. The Ph.D. program comprises of coursework and research. These are essentially intended for academics or mature architects who have developed an interest in some particular aspect of the built environment that they tend to explore it deeply.

### Objectives And Academic System

The Bachelor of Architecture degree program provides a liberal introduction to study architecture as a discipline and to produce all rounder individuals who can play a leading role in shaping up a healthy society. Students gain a critical and ethical awareness of architecture with much to offer in the face of many of today's most pressing societal challenges. It equips students to join other design fields or related disciplines, and it prepares students for the Master of Architecture degree. The course content includes Basic Design, Architectural Design, History of Architecture, Materials and Construction, Physical Environmental Studies, Structural Systems, Theory of Architecture, Interior Design, Landscape Architecture etc. Research Methodology etc. The first year begins by introducing the fundamentals before studies of the major subjects in which students are required to design projects of different typologies. The students can have a better sense of life and ability to produce well adjusted whole by blending different aspects: function, form, structure, techniques, context and culture.

The departmental pedagogy exhibits a strongly belief in the fact that the purpose of university education, above and beyond professional training is broadening the intellectual horizons and to produce enlightened and progressive members of society. Hence the teaching practices at the department aim to achieve these objectives by providing a thorough knowledge base through formal curriculum, combined with exposure to a social and intellectual environment developed and maintained through informal and co-curricular activities. The students are encouraged to participate in the national and provincial activities under the patronization of Pakistan Council of Architects and Planners (PCATP) and Institute of Architects of Pakistan (IAP).

The built environment to a great extent influence and facilitate in imparting quality education. The Department of Architecture has well furnished design studios, lecture theatres, library and well equipped computer and physical environmental studies labs.

The department has a well stocked library with a large number of books and magazines on Basic Design, Architectural Design, History of Architecture, Building Construction, Physical Environmental Studies, Theory of Architecture, Urban Planning & Design, Research Methodology, Landscape Architecture, Interior Design etc. Other than books and Journals, a separate section exists containing B. Arch and M. Arch Thesis on variety of topics.

<b>Semester 1</b>		<b>Year 1</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Arch:101	Basic Design - I	0	5
Arch:102	Materials and Construction - I	2	1
Arch:103	History of Civilization - I	2	0
Arch:104	Architectural Graphics - I	0	3
CE:101	Elementary Surveying	3	1
HU: 111	Communication Skills	0	1
QT-101	Translation of the Holy Quran	1	0

<b>Semester 3</b>		<b>Year 2</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Arch:201	Architectural Design - I	0	6
Arch:207	Structural Systems - II	1	1
Arch:203	History of Civilization - III	2	0
Arch:204	Architectural Graphics - II	0	2
Arch:206	Environmental Control - I	2	1
Hu/IS-202	Islamic & Pak Studies - II	3	0

<b>Semester 5</b>		<b>Year 3</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Arch:301	Architectural Design-III	0	8
Arch:302	Building Services	2	1
Arch:303	Environmental Psychology	2	0
Arch:306	Energy Efficient Architecture	2	1
Arch:307	Computer Application in Architecture -II	0	2

<b>Semester 7</b>		<b>Year 4</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Arch:401	Architectural Design-V	0	8
Arch:403	History, Theory & Criticism	2	0
Arch:406	Research & Report Writing	2	0
Arch:407	Landscape Design	2	1
Arch:408	Urban Design-I	2	1

<b>Semester 9</b>		<b>Year 5</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Arch:501	Thesis Design-I	0	10
Arch:502	Project Management	2	1
Arch:503	Elective-I	2	0

<b>Semester 2</b>		<b>Bachelor in Architecture</b>	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Arch:111	Basic Design - II	0	5
Arch:117	Structural Systems - I	1	1
Arch:113	History of Civilization - II	2	0
Arch:114	Model Making	0	2
Arch:115	Free Hand Sketching	0	2
HU/IS:101	Islamic and Pakistan Studies-I	3	0

<b>Semester 4</b>			
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Arch:211	Architectural Design - II	0	6
Arch:212	Materials and Construction-II	2	1
Arch:213	History of Civilization - IV	2	0
Arch:214	Architectural Graphics-III	0	2
Arch:216	Environmental Control-II	2	1
Arch:217	Computer Application in Architecture-I	0	2
QT-201	Translation of the Holy Quran	1	0

<b>Semester 6</b>			
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Arch:311	Architectural Design-IV	0	8
Arch:312	Architectural Working Drawings	0	2
Arch:313	Theory of Architecture	2	1
Arch:317	Interior Design	2	1
QT-301	Translation of the Holy Quran	1	0

<b>Semester 8</b>			
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Arch:411	Architectural Design-VI	0	8
Arch:413	Architecture in Pakistan	2	0
Arch:417	Conservation of Historic Buildings	2	0
Arch:418	Urban Design-II	1	2
QT-401	Translation of the Holy Quran	1	0

<b>Semester 10</b>			
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Arch:511	Thesis Design-II	0	11
Arch:512	Professional Practice	2	1
Arch:513	Elective-II	2	0



## DEPARTMENT OF CITY & REGIONAL PLANNING

### Dean

Prof. Dr. Rizwan Hameed

Dr. Obaidullah Nadeem

Dr. Shaker Mahmood Mayo

Dr. Zareen Shahid

Dr. Humaira Tabassum

### Chairman

Prof. Dr. Shaker Mahmood Mayo

Dr. Ijaz Ahmad

Dr. Amer Aziz

### Lecturers

Ms. Saima Rafiq

### Professors

Dr. Rizwan Hameed

### Assistant Professors

Dr. Muhammad Asim

Dr. Atif Bilal Aslam

### Introduction

The Department of City and Regional Planning (DCRP) is contributing to nation building through its graduates since 1962. It is an advanced planning institution in Pakistan, offering top quality education to serve the nation. The Department attracts international students due to its inclusive and vibrant environment. The teaching focuses on equipping the students with all essential skills to prepare them for higher education and ethical professional practice. The faculty is highly educated with many members holding foreign qualifications. They actively conduct research to find innovative solutions to plan and manage human settlements in a sustainable manner. The detail of the department and the faculty can be accessed through university weblink <https://crp.uet.edu.pk/>.

### National and International Recognition

The Department aspires to rise as one of the best and world-renowned centres of excellence in City and Regional Planning education, research, and advisory services. In this context it is worth mentioning that the B.Sc., M.Sc., and Ph.D. degrees offered by the Department are recognized and accredited



by the Higher Education Commission (HEC), Pakistan Council of Architects and Town Planners (PCATP), and Institute of Planners Pakistan (IPP). In addition, the Department has long-established and time-honoured recognition by International Institutes of City and Regional Planning and the associated professional bodies all over the world such as Asian Planning Schools Association (APSA). The graduates of this Department are also eligible to get registered with international bodies of professional planners such as, American Planning Association, Royal Town Planning Institute, International Society of City and Regional Planners etc. This has also enabled several of our graduates to work as city planning and development management experts in various countries of the developed and developing world.

### Courses of Study

The Department offers following courses of studies:

- a) B.Sc. City and Regional Planning (CRP)
- b) M.Sc./M.Phil City and Regional Planning (CRP)
- c) M.Sc. Community Development and Environmental Management (CDEM)
- d) M.Sc. Disaster Management (DM)
- e) Ph.D. City & Regional Planning (CRP)

### B.Sc. City & Regional Planning Course

The curriculum for the eight semesters of B.Sc. course in City & Regional Planning is designed to produce professionals who can serve as development managers of our urban and rural areas. Several new courses are introduced, considering the market demands, entrepreneurial skills, and cutting edge technologies.

City and Regional Planning is an interdisciplinary field which deals with the social, economic, and physical aspects of the society and the built environment. Accordingly, the department offers related subjects such as Active Citizenship and Development Planning, Sociology, Entrepreneurship, Finance Planning, Development Economics, Climate Change Adaptation, Disaster Management, Urban Regeneration and Conservation, Master Planning, Estate Management, Transportation Planning, Housing Development Planning and Urban Design. Moreover the students are equipped with Related software techniques including ArcGIS, AutoCAD, SPSS, Sketchup, 3D Max, Photoshop, Primavera, EPANET, HCS, and TransCAD. Along with these teaching communication skills, survey planning and dealing with people is a crucial part of the training in the department. Therefore, the graduates of this Department are trained not only in planning and engineering subjects but also in management and social sciences.

### Practical Work

Cities and regions are the real field laboratories for Town Planners and proper functioning of urban planning contribute towards better life standards. Therefore, practical work is included in the course work of four years to train students to deal with real world planning issues.

The assignments consist of data collection from different institutions and general public, mathematical and theoretical analysis, and preparation of policies and plans for solutions. Notable practical works include preparation of Master Plans, Housing Scheme Planning and Development, Transportation Plans, Urban Regeneration and Conservation Planning, Environmental Planning, Urban Design, Planning for New Towns, Industrial Estate Planning, and Landscape Design and. These also involve extensive use of spatial and planning data analysis softwares. Overall, the students are equipped with necessary analytical and presentation skills demanded by the public and private sector employers.

### Opportunities for Field Knowledge

In order to enable our students to understand complexities of human settlements and strike a balance between the environment and development, academia and field experts from technologically advanced countries like Germany, England and the New Zealand etc. are invited to deliver extension lectures.

Moreover, seasoned Town Planners and allied professionals from various Government departments and private consultancies are also invited to deliver

guest lectures both at campus as well as online. The Department also arrange 6-8 weeks internship for 3<sup>rd</sup> and final year undergraduates to gain hands-on practice in the field of town planning and become viable and experienced job applicants when seeking employment after graduation.

### Future of CRP Graduates

During the recent years, City and Regional Planning has emerged as a popular discipline and a profession with very high employment rate. Keeping in view the growing demand of our graduates in Pakistan and abroad, the university has increased the number of seats allocated for its undergraduate programme. Some of the recruiting agencies in the government sector include:

- Universities offering City & Regional Planning programs
- Planning Commission of Pakistan
- Ministry of Housing, Environment and Urban Affairs
- The Urban Unit, Punjab & KP
- Punjab Housing and Town Planning Agency
- Development Authorities (LDA, CDA, MDA, GDA, KDA, GDA, SDA, RDA and the like)
- Metropolitan/Municipal Corporations, and Tehsil Councils
- Federal Government Employees Housing Authority
- Armed Forces (MES and Disgn Directorates)
- Civil Aviation Authority
- Pakistan Government Employees Housing Authority
- NDMA, PDMA and Punjab Emergency Services

Furthermore, there are numerous employment opportunities in the local, national and international NGO's and private planning consultancy firms. Our graduates are also extensively working in the real estate sector with the private entities such as Graana.com, Behria Town, DHAs, and other land developers. Thus, the City & Regional Planning professionals hold key portfolios at the local, provincial, and national level institutions.

### Learning Space Facilitation At The Department

The department comprises of all necessary facilities which include seminar hall, lecture theatre, drawing studio, computer lab, conference room, research room and library. All the lecture rooms/ design studios are equipped with modern audio-visual aid such as interactive smart boards with ultra-short throw multimedia projectors and public address systems. A state-of-the-art GIS laboratory is recently established with latest desktop computers having Core i7 processors to facilitate use of satellite imageries for spatial data analysis and planning. The computers are connected with a high speed server based local network and internet facility. The laboratory is also equipped with modern scanning and printing facilities.

### Library and Allied Facilities

The Department has a well-stocked library, with a wide range of latest books, international journals, reports, and other documents related with the field of City & Regional Planning. The Departmental library was established with the assistance of the British Government. Several new books are added every year. The Department has also got latest mapping/ planning and survey equipment such as global positioning systems and total station, digital planimeters, pantographs, colour plotters, laser jet printers and scanners. In addition, the equipment like noise level meters for noise pollution studies, spectro photometer for chemical testing of water and flue gas analyzer for automotive and industrial emissions testing are also available. The Department has established state-of-the-art seminar and conference rooms. Both are air-conditioned and equipped with smart boards. Symposia and extension lectures of world-renowned research scholars, professional planners and students' discussion forums are frequently held in these rooms.

## B.Sc. City &amp; Regional Planning Engineering

Year 1

**Semester 1**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CRP-101	Introduction to City and Regional Planning	3	0
CRP-102	Technical Drawing	0	2
HU-001	Functional English	3	0
CRP-103	Computer Aided Design and Modeling	0	2
CE-101L	Elementary Surveying	3	1
MA-114	Applied Mathematics	3	0

Year 2

**Semester 3**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CRP-201L	Environmental Planning and Management	3	1
CRP-202L	Architectural Design	1	2
CRP-203	Applied Geography	2	0
CRP-204	Information Technology and Database Management	0	3
HU-200	Technical Report Writing	3	0
CRP-205	Development Economics	2	0
PID-207	Workshop Practice (Model Making)	0	1

Year 3

**Semester 5**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
EnE-308L	Environmental Engineering	3	1
CRP-304	Planning Law	3	0
CRP-305L	Urban Regeneration and Conservation	2	1
CRP-306L	Planning of New Towns	2	2
CRP-307L	GIS Analysis and Applications	1	1
CRP-308	Climate Change Adaptation and Disaster Management	2	0

Year 4

**Semester 7**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CRP-401L	Master Planning - I	2	2
MGT-402L	Finance Planning and Management	2	1
CRP-403L	Project Planning and Management	1	1
CRP-404L	Professional Planning Practice	1	2
CRP-405L	Rural Development Planning	2	0
CRP-406	Project - I	0	3

**Semester 2**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CRP-104L	Mapping and Remote Sensing	1	2
CRP-105	History of Urban Planning	2	0
CRP-106L	Transportation Engineering	2	1
IS-101	Islamic and Pakistan Studies-I / Ethics and Pakistan studies-I	3	0
MA-141	Applied Statistics	3	0
CY-131/PHY110	Environmental Chemistry I / Applied Physics*	2	1
QT-101	Translation of The Holy Quran - 1	1	0

**Semester 4**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CRP-206	Sociology	2	0
CRP-207L	Housing and Urban Development	2	1
CRP-208L	Transportation Planning	2	1
CRP-209L	Introduction to GIS	1	1
IS-201	Islamic and Pakistan Studies/Ethics and Pakistan Studies-II	3	0
HU-111	Communication skills	0	1
CRP-210L	Planning Surveys	1	2
QT-201	Translation of The Holy Quran - 2	1	0

**Semester 6**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CRP-309L	Research Methods	2	1
CRP-310L	Industrial Estate Planning and Design	1	1
CRP-311L	Landscape Design	1	1
CE-301L	Building Construction Technology	2	1
CRP-313L	Urban Design	2	1
CRP-314	Active Citizenship and Development Planning	2	0
QT-301	Translation of The Holy Quran - 3	1	0

**Semester 8**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CRP-407	Project-II	0	3
CRP-408L	Master Planning – II	1	2
CRP-409L	Estate Management	1	1
CRP-410L	Land use and Building Control	2	1
CRP-411L	Regional Planning	2	1
MGT-413	Entrepreneurship	3	0
QT-401	Translation of The Holy Quran - 4	1	0



## DEPARTMENT OF PRODUCT AND INDUSTRIAL DESIGN

### Dean

Prof. Dr. Muhammad Rizwan Hameed

### Chairman

Prof. Dr. Muhammad Rizwan Hameed

### Assistant Professor

Ms. Fariha Saeed

Ms. Asma Khalid

Dr. Salman Asghar

### Lecturers

Ms. Aisha Hameed

Ms. Uroosa Naz

Ms. Anum Shamshad

Ms. Mona Gulzar

Ms. Neyalish Aman

Ms. Aiman Amjad

### Introduction

The Department of Product & Industrial Design was established in the year of 2006 with aim to generate professionals in the field of Product Design with technological, managerial and entrepreneurial skills for emerging needs of the industry. The department provides standard Product Design education at bachelor level and has commenced post graduate program in the year 2016. The offered courses equip students with skills and knowledge necessary not only for industrial designing but also for the students who can pursue various choices of career after graduation; the graduates will be industrial / product designers, design managers, entrepreneurial, designer for product manufactures and trading companies' product design consultancies.

Broadly speaking, the role of the product designer combines art, science and technology to create tangible three-dimensional goods. Master Program of Product and Industrial Design involves the research and design of the whole range of consumer and capital products. These are as diverse as telephones and transportation, kitchen appliances exhibition systems. Ideally, the industrial designer works as part of a multidisciplinary team involving engineering, production and marketing.

### Inspiring Innovation, Delivering Success

The program is likely to be of interest to students who:

- Have abilities, such as drawing and making that support design activity, as well as capability to work with technical information.
- Have an interest in the way products and systems relate to people and societies.
- Are interested in technology but want to develop their design creativity and wish to be involved in the whole product development process.
- Are considering marketing but wish to develop new products as part of a marketing strategy
- Seeking flexibility in their career path.

### Product & Industrial Design Curriculum

The curriculum in Product & Industrial Design provides education in three-dimensional design for commercial and artistic production. The curriculum combines industrial design courses with Art and Design foundation courses, Art History Courses, Design Electives, General Electives and General Education Units required by the university.

The Bachelor of Product and Industrial Design (B.PID) is an innovative four years full-time undergraduate program of study. The Bachelor of Product and Industrial Design may be awarded with honors based upon the quality of performance in the program and current Faculty regulations.

The Bachelor of Product Design provides the skills for a career as a professional product designer. It brings together the creative 3D design culture of design, advanced technologies of engineering and the entrepreneurial spirit of business. The programme is designed to appeal to the aspirations of the new generation of young multi-skilled and multi-talented creative entrepreneurial who seek a creative career.

### Career Opportunities

The graduate in PID can work as Product & Industrial Designers, graphic designers, packaging designers, project coordinators in Architecture (Construction) Product designers, product merchandisers, art installation designers and design managers.

### Laboratories

The department has following well equipped labs to meet the academic needs of the students and teachers:

- **Computer Lab**
- **Digital Graphics Lab**
- **Ceramics/ WoodLab**
- **Postgraduate Research Lab**

Besides, student use the labs in different subjects of engineering discipline for respective experiments.



<b>Semester 1</b>		Year 1	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PID: 101	Fundamentals of Design - I	2	5
PID: 102L	Visual Communication - I	0	4
PID: 103	Materials and Technology - I	2	2
PID: 106	History of Creative Arts and Design - I	1	2
PID: 105	Introduction to Computers	1	2
IS: 101	Islamic and Pakistan Studies - I	3	0
HU-111L	Communication Skills	0	3

<b>Semester 3</b>		Year 2	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PID: 201	Product Design-I	2	5
PID: 202	Ergonomics	2	2
PID: 203	Advance Materials & Science	2	2
PID: 206	History of Creative Art & Design-II	1	2
PID: 205L	Computer Aided Design	0	5
HU-221	Technical Writing & Presentation Skills	3	0

<b>Semester 5</b>		Year 3	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PID:301	Product Design-III	2	5
PID:302L	3D-Modeling	0	5
PID:303	Photography	1	2
PID:304	History of Creative Art & Design-III	2	0
PID:305L	Computer Modeling & Rendering	0	5
PHY:301	Packaging Physics	2	2

<b>Semester 7</b>		Year 4	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PID:401	Product Design-V	1	6
PID:402	Final Year Project -I	0	12
PID:403	Electives: 1. Visual Communication Design (video production) 2. Advanced Ceramics 3. Furniture Design 4. Advertisement Design (print media) 5. Product Development & Manufacturing 6. Interior Design	2	2
MGT-413	Entrepreneurship	3	0
QT:401	Translation of Holy Quran	1	0

<b>Semester 2</b>		B.Sc. Product & Industrial Design Engineering	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PID: 111	Fundamentals of Design -II	2	5
PID: 112L	Technical Drawing	0	3
PID: 113	Materials and Technology – II	2	2
PID: 115L	Digital Graphics	0	5
ME: 100L	Workshop Practice	0	3
MA: 114	Applied Mathematics	3	0
QT:101	Translation of Holy Quran	1	0

<b>Semester 4</b>		Year 2	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PID: 211	Product Design-II	2	5
IME: 253	Work Study & Ergonomics	2	2
PID: 217L	Advance Computer Aided Design	0	5
PID: 216	Aesthetics	2	0
MA: 244	Probability and Statistics	2	1
IS: 201	Islamic and Pakistan Studies -II	3	0
QT:201	Translation of Holy Quran	1	0

<b>Semester 6</b>		Year 3	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PID:311	Product Design-IV	2	5
PID:313	Graphic Design	2	4
PID:314	Research Methodology	2	2
PID:315	Introduction to Management	1	2
ME-229	Mechanics of Materials and Machine Design	3	0
QT:301	Translation of Holy Quran	1	0

<b>Semester 8</b>		Year 4	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PID:411	Final Year Project -II	0	24
PID:412	Professional Practice	2	2

Faculty of  
Natural Sciences, Humanities  
& Islamic Studies







## DEPARTMENT OF CHEMISTRY

### Dean

Prof. Dr. Muhammad Shahid Rafique

### Chairperson

Prof. Dr. Syeda Rubina Gilani

### Professor

Prof. Dr. Syeda Rubina Gilani

### Introduction

The history of Department of Chemistry is as old as 1923. It was known as “Science Department” in the days of Maclagan Engineering College Lahore, which offered the subjects of Chemistry, Physics and Mathematics to Engineering disciplines. However, an independent Department of Chemistry was established in 1961, when Maclagan College of Engineering was upgraded to University, presently University of Engineering and Technology, Lahore. It was a supporting department for teaching applied chemistry courses to engineering disciplines until 1994.

The Department started M.Sc. Applied Chemistry program in 1995. While the M.Phil. program in Chemistry was started in 2001. The Ph.D. program was started in 2004. In 2020, BS Chemistry program started with almost 35 in first intake.

The Department is also offering applied chemistry courses to various Engineering disciplines that include Electrical, Chemical, Polymer, Metallurgical,

Prof. Dr. Farhat Yasmeen

### Associate Professor

Dr. Humayun Ajaz  
Dr. Arjumand Iqbal Durrani  
Dr. Aisha Munawar

### Assistant Professor

Dr. Abdul Ghaffar  
Ms. Hina Saleem  
Dr. Zahoor Ahmad  
Dr. Ashi Rashid

Mining, Industrial and Manufacturing, Geological and Petroleum & Gas Engineering.

There are several well-equipped laboratories having a number of modern instruments like UV-Visible Spectrophotometer, FTIR, Atomic Absorption Spectrophotometer, GC-FID, GC-FPD, GC-MS, HPLC-UV, High Temperature Furnaces, Polarimeters, Potentiometer, EDAC, Incubator Shaker, High Speed Control Centrifuge, Low Temperature Incubators Vacuum Pumps, Kjehldahl Apparatus, Soxhlet Apparatus, Schilink Lines, some Electrochemical Instruments, Fluorescence Spectrophotometer (cary eclipse), ATR (cary 630 FTIR), Refractometer (AbbeMat 500), Polarimeter (MCP 500), Potentiostat, Ultra-Low Temperature Freezer (U360 Innova), Thermo Scientific Barnstead Smart 2 Pure water (2 No.), Eliza Reader Laminar Flow Hoods, Cool Incubators, Dry Incubators, Oven, Freezer, Orbital Shaker, Spectrophotometer, Antibacterial and Antifungal facility, Colony Counter etc. In addition, there is a well-stocked Library and I.T, Computer Laboratory to facilitate the Students.



## B.Sc. Chemistry

## Semester 1

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
HU-111	Communication Skills		1
IS-101	Islamic Studies/Pak studies I	3	
Math-101	Calculus I	3	
CS-101L	Computing Fundamentals		1
Phys-101	Mechanics	3	
Phys-101L	Mechanics Lab		1
CY-151	Introduction to Physical Chemistry	2	
CY-151L	Introduction to Physical Chemistry Lab		1
CY-121	Introduction to Inorganic Chemistry	2	
QT-101	Translation of the Holy Qur'an-I	1	

## Semester 3

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Math-203 & 203L	Scientific Programming	2	1
CY-252	Physical Chemistry – I	2	1
CY-222	Inorganic Chemistry – I	2	1
CY-261	Organic Chemistry-I	2	1
CY-201	Environmental Sciences	3	0
CY-212	Analytical Chemistry 1	2	1

## Semester 5

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CY-314	Analytical Chemistry-III	3	1
CY-324	Inorganic Chemistry-III	3	1
CY-363	Organic Chemistry-III	3	1
CY-354	Physical Chemistry-III	3	1
QT-301	Translation of the Holy Qur'an-III	1	
HU-204	Foreign Languages (Any)	1	

## Semester 7

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CY-4--*	Advanced Paper I	3	
CY-4--*	Advanced Paper II	3	
CY-4--*	Experimental Methods	3	
CY-491	Scientific Report Writing	3	
QT-401	Translation of the Holy Qur'an-IV	1	
CY-492	Research Project/Internship and Report Writing /Additional Paper)	3	3

\*Three Courses from the field of specialization (Two Theory and one Experimental Methods)

CY-491 Scientific Report Writing (Common to all) (3 Cr Hrs.)

CY-492 Research Project/Internship and Report Writing /Additional Paper (3 credit) Total (12 credit hours + 3 credit hour research = 15) 600 Marks

## Semester 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
HU-221	Technical Writing and Presentation Skills	3	
IS-201	Islamic Studies/Pak studies II	3	
Math-105	Statistics	3	
CY-141	Biochemistry and Biotechnology	3	
MGT-100	Introduction to Business	3	
CY-111	Introduction to Analytical Chemistry	2	
CY-111L	Introduction to Analytical Chemistry Lab		1

## Semester 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CY-253	Physical Chemistry – II	2	1
CY-213	Analytical Chemistry II	2	1
CY-223	Inorganic Chemistry-II	2	1
CY-262	Organic Chemistry-II	2	1
QT-201	Translation of the Holy Qur'an-II	1	
CY-204	Energy Resources of Pakistan and its Management	2	
Math-205	Ordinary Differential Equations	3	

## Semester 6

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CY-315/CY-331	Analytical Chemistry-IV/ Applied Chemistry	3	1
CY-325	Inorganic Chemistry-IV	3	1
CY-364	Organic Chemistry-IV	3	1
CY-355	Physical Chemistry-IV	3	1
CY-301	Workplace hazardous materials information	2	

## Semester 8

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CY-4--*	Advanced Paper IV	3	
CY-4--*	Advanced Paper V	3	
CY-4--*	Experimental Methods	3	
CY-4--*	Elective Course (Other than the field of specialization)	3	
CY-492	Research Project/Social Services and Report Writing / Additional Paper (3 credit)		3

\*Three Courses from the field of specialization (Two theory and one experimental) (9 Cr Hrs.)

Elective Course I (Other than the field of specialization) (3 Cr Hrs.)

CY-492 Research Project/Internship and Report Writing /Additional Paper (3 credit) Total (12 Credit hrs. + 3 Cr hrs. Research) 600 Marks

Total Credit hrs. 15<sup>3</sup> Total Credit Hours 135

## Final Year Subject Specialization

**Final Year Specialization**

Course No.	Specialization Subjects
1&2	Inorganic and Analytical Chemistry
3, 7 & 8	Industrial, Environmental and Polymer Chemistry
4 & 0	Biochemistry and Microbiology
5	Physical and Electrochemistry
6	Organic Chemistry (Organic, Food and Biochemistry)

**Inorganic & Analytical Chemistry**

Course No.	Specialization Subjects
CY-411	Spectroscopic Techniques
CY-412	Thermal Analysis
CY-413	Electroanalytical Techniques
CY-414	Statistical Data Handling and Spreadsheets
CY-415	Vacuum Techniques In Analytical Chemistry
CY-416	Physicochemical Methods of Analysis
CY-418	Experimental Methods in Analytical Chemistry I
CY-419	Experimental Methods in Analytical Chemistry II
CY-421	Introduction to Organometallic Chemistry
CY-422	Inorganic Catalysis
CY-423	Principles of Bioinorganic Chemistry
CY-424	Inorganic Chemistry of Main Group Elements
CY-425	Special Topics in Inorganic Chemistry
CY-426	Experimental Methods in Inorganic Chemistry I
CY-427	Experimental Methods in Inorganic Chemistry II

**Industrial, Environmental & Polymer Chemistry**

Course No.	Specialization Subjects
CY-431	Organic Based Industries
CY-432	Agro Based Industries and Pollution Control
CY-433	Industrial Process Projects of Applied
CY-434	Chemistry Experimental
CY-435	Methods in Industrial Chemistry I
CY-436	Experimental Methods in Industrial Chemistry II
CY-481	Fundamentals of Environmental Chemistry
CY-482	Environmental Toxicology
CY-483	Green Chemistry
CY-484	Environmental Chemistry
CY-485	Environmental Law
CY-486	Projects of energy resources of Pakistan and its management
CY-487	Experimental Methods in Environmental Chemistry
CY-471	Polymer Chemistry

CY-472	Polymer Blends and Composites
CY-473	Degradable Polymeric Materials
CY-474	Polymer Analysis and Characterization
CY-475	Functional Polymeric Materials
CY-476	Experimental Methods in Polymer Chemistry

**Organic and Food Chemistry**

Course No.	Specialization Subjects
CY-461	Organic Spectroscopy
CY-462	Heterocyclic and Organometallic Compounds
CY-463	Reaction Mechanism And Reactive Intermediates
CY-464	Natural Products
CY-465	Advance Food Chemistry and Technology
CY-466	Food Laws and Regulations
CY-467	Food Technology in Dairy
CY-468	Experimental Methods in Organic Chemistry
CY-469	Experimental Methods in Food Chemistry
CY-401	Essentials of Microbiology
CY-402	Introduction to Microbiology
CY-403	Chemical Microbiology
CY-441	Structural Biochemistry
CY-442	Biochemistry of Metabolism
CY-443	Informational Macromolecules
CY-444	Bioenergetics
CY-445	Nutritional Biochemistry
CY-446	Advance Protein Chemistry
CY-447	Enzymes and Enzymology
CY-448	Metabolism and Related Diseases
CY-449	Experimental Methods in Biochemistry
CY-404	Experimental Methods in Microbiology

**Physical & Electrochemistry**

Course No.	Specialization Subjects
CY-451	Solid State and Material Chemistry
CY-452	Thermodynamics
CY-453	Electrochemistry and Clean Energy
CY-454	Applied Electrochemistry
CY-455	Electro-Kinetics Phenomenon
CY-456	Electrochemical Industrial Processes
CY-457	Quantum Chemistry
CY-458	Physical and Electrochemistry Chemistry Lab I
CY-459	Physical and Electrochemistry Chemistry Lab II



## DEPARTMENT OF MATHEMATICS

### Dean

Prof. Dr. Muhammad Shahid Rafique

### Chairman

Prof. Dr. Muhammad Mushtaq

### Professor

Dr. Muhammad Mushtaq  
Dr. Asma Rashid Butt

### Associate Professors

Dr. Sabir Hussain  
Dr. Qasim Ali Ch.  
Dr. Muhammad Irfan Qadir

### Assistant Professors

Mr. Muhammad Naeem  
Dr. Shafique-ur-Rahman  
Dr. Samia Azhar  
Ms. Rubina Fayyaz  
Ms. Saima Nazir  
Dr. Anjum Pervaiz

Dr. Mustafa Habib  
Ms. Samina Saeed Khan  
Dr. Kashif Ali Khan  
Dr. Saadia Farid  
Dr. Shamaila Samreen

### Lecturers

Dr. Muhammad Shabbir  
Dr. Taimoor Iqbal  
Mr. Abdur Rehman Khan Salari  
Dr. Ali Ovais

### Introduction

The Department of Mathematics is one of the oldest departments of the University of Engineering and Technology, Lahore. It was established in 1961. The Department of Mathematics not only runs its own programs like BS in Mathematics, M. Phil in Applied Mathematics and Ph.D. in Mathematics, but also provides its services to all disciplines of engineering and technology, and business to make their students capable enough to apply the tools of Mathematics for solving the problems occurring in their respective areas of study. The teaching faculty feels the responsibility to impart the knowledge of Mathematics with innovation so that the students might be able to understand and give solutions to the complex engineering, science and business problems of this modern era.

### Program Educational Objectives (PEOs)

**PEO-01:** Establish the base for lifelong education by creating essential concepts and equipping the student with necessary techniques, need to start a carrier of research, development, teaching or applications involving mathematics.

**PEO-02:** Enable them to use the equations of Mathematics describing general laws applying, mainly, inductive logic.

**PEO-03:** Modeling of Engineering Problems from the Fundamental Laws to create practical system.

**PEO-04:** Graduates will be capable to critically analyze mathematical problems, taking them from various stages of concept building with problem-solving skills.

### Research Extension & Advisory Services

Research is an essential component of the academic pursuits of the faculty members and the postgraduate students. The work of the faculty is published in national and international journals. The Department has a computer laboratory equipped with personal computers along with the internet facility. The Department also offers Mechanics Lab at undergraduate level to various engineering departments. This not only improves the practical training of the students but also develops the skill of viva voce, etc.



## B.Sc. Mathematics

## Semester 1

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MATH-101	Calculus-I	3	
MATH-102	Elements of Set Theory and Mathematical Logic	3	
MATH-103	Introduction to Computers	3	
HU-111	Communication Skills	1	
IS-101	Islamic and Pakistan Studies-I	3	
PHYS-101 & 101	Mechanics	3	1
LQT-101	Translation of the Holy Qur'an-I	1	

## Semester 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MATH-104	Calculus II	3	0
MATH-105	Statistics	3	0
MATH-106	Software Packages	3	0
CY-151 & 151	Introduction to Physical Chemistry	2	1
LHU-221	Technical Writing and Presentation Skills	3	0
IS-201	Islamic and Pakistan Studies II	3	0

## Semester 3

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MATH-201	Calculus III	3	0
MATH-203 & 203L	Scientific Programming	2	1
MATH-204	Linear Algebra	3	0
PHYS-201 & 201L	Waves and Oscillations	3	1
MGT-100	Introduction to Business	3	0

## Semester 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MATH-205	Ordinary Differential Equations	3	0
MATH-206	Discrete Mathematics	3	0
MATH-211	Operation Research-I	3	0
CY-111 & 111L	Introduction to Analytical Chemistry	2	1
PHYS-202	Heat and Thermodynamics	3	0
HU-204	Any Foreign Language	1	0
QT-201	Translation of the Holy Qur'an-II	1	

## Semester 5

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MATH-301	Real Analysis-I	3	0
MATH-302	Vector and Tensor Analysis	3	0
MATH-303	Probability	3	0
MATH-304	Topology	3	0
MATH-312	Operation Research II	3	0
MATH-305	Modern Algebra-I	3	0

## Semester 6

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MATH-307	Classical Mechanics	3	0
MATH-308	Partial Differential Equations	3	0
MATH-309	Complex Analysis	3	0
MATH-310	Differential Geometry	3	0
MATH-311	Real Analysis-II	3	0
QT-301	Translation of the Holy Qur'an-III	1	0

## Semester 7

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MATH-400	Number Theory	3	0
MATH-401	Numerical Analysis	3	0
MATH-403	Mathematical Physics	3	0
	Elective -1	3	0
	Elective -2	3	0

## Semester 8

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MATH-405	Integral Equations	3	0
MATH-441	Functional Analysis	3	0
	E:3	3	0
	E:4	3	0
MATH-460	Project	3	0
QT-401	Translation of the Holy Qur'an-IV	1	0

## \* Elective Subjects (Pure Mathematics)

- MATH-442 Measure Theory • MATH-443 Algebraic Topology • MATH-444 Convex Analysis • MATH-445 Modern Algebra II (Rings and Modules)
- MATH-446 Advanced Group Theory • MATH-447 Axiomatic Set Theory • MATH-448 Riemannian Geometry • MATH-449 Galois Theory

**4th Year 7th Semester (Applied Mathematics)**

Course No.	Subject	Credit Hours
MATH-401	Numerical Analysis	3
MATH-402	Fluid Mechanics-I	3
MATH-403	Mathematical Physics	3
	Elective-1	3
	Elective-2	3

**4th Year 8th Semester (Applied Mathematics)**

Course No.	Subject	Credit Hours
MATH-404	Fluid Mechanics-II	3
MATH-405	Integral Equations	3
	Elective-3	3
	Elective-4	3
MATH-460	Project	3
QT-401	Translation of the Holy Qur'an-IV	1

## \* Elective Subjects (Applied Mathematics)

- MATH-406 Electromagnetism • MATH-407 Analytical Dynamics • MATH-408 Quantum Mechanics • MATH-409 General Relativity
- MATH-410 Special Relativity • MATH-411 Elastic Theory

**4th Year 7th Semester (Computational Math.)**

Course No.	Subject	Credit Hours
MATH-401	Numerical Analysis	3
MATH-403	Mathematical Physics	3
MATH-416	Optimization Theory	3
	Elective-1	3
	Elective-2	3

**4th Year 8th Semester (Computational Math.)**

Course No.	Subject	Credit Hours
MATH-405	Integral Equations	3
MATH-412	Numerical Solutions of Differential Equations	3
	Elective-3	3
	Elective-4	3
MATH-460	Project	3
QT-401	Translation of the Holy Qur'an-IV	1

## \* Elective Subjects (Computational Mathematics)

- MATH-417 Mathematical Modeling and Simulation • MATH-418 Dynamical Systems • MATH-419 Mathematical Biology
- MATH-420 Computational Fluid Dynamics





## DEPARTMENT OF PHYSICS

### Dean

Prof. Dr. Muhammad Shahid Rafique

### Chairman

Prof. Dr. Anwar Latif

### Professors

Dr. Rehana Sharif  
Dr. Muhammad Iqbal

### Associate Professor

Dr. Rashid Jalil  
Dr. Shamaila Shahzadi  
Dr. Ibtsam Riaz

### Courses of Study

The Department offers the following Postgraduate programs and Undergraduate programs:

- (i) Bachelor of Science Physics (4 Years Program)
- (ii) M.Phil. in Applied Physics

Dr. Abdul Waheed Anwar

### Assistant Professor

Dr. Umber Kalsoom  
Dr. Usman Ilyas  
Dr. Ishrat Mubeen Dildar  
Dr. Muneeb Irshad  
Dr. Saba Majeed Gondal  
Dr. Amina Afzal  
Dr. Jaweria Zartaj Hashmi  
Dr. Saima Shaukat  
Dr. Haamid Jamil  
Dr. Sofia Siddique

### LASER & OPTRONICS CENTRE

#### Director

Prof. Dr. Muhammad Shahid Rafique

#### Professor

Prof. Dr. Khurram Siraj

#### Lecturer

Dr. Khadija tul Kubra

- (iii) M.Phil. in Nano Science and Technology
- (iv) Ph.D. Physics

The faculty is highly qualified and motivated including twenty (20) members with Ph.D. degrees. The interdisciplinary curriculum draws on faculty expertise in many areas of Applied Physics and includes such courses as Laser Physics, Plasma Physics, Nanotechnology, Health & Medical Physics, Photonics & Optoelectronics, Applied Optics, Applied Atomic & Nuclear Physics, Solid State Physics, Computer Science and its applications and Electronics, etc.

The Department has produced 371 M.Phil. and 466 M.Sc. students so far, who are serving in different educational institutes like Lahore College for Women University, G.C. University, Lahore, F.C. College University, PIEAS, etc. R & D Organizations like PAEC, NESCOM, OPTICS Lab. KANUPP etc. and in the field of Medical Physics in Shaikat Khanum Hospital, INMOL etc. The Department has also produced 27 Ph.D. and 23 are pursuing their Ph.D degrees. There are six well equipped Laboratories in the Department. The Research work is backed up by the state-of-the-art equipments where students have the opportunity to perform experiments of advanced level with the special emphasis on the applied concepts of Physics. The students who got admission in session 2020 are pursuing their BS Physics degree.

The Department has also two fully equipped Advanced Research Centres:

**(i) Laser & Optronics Centre**

This centre provides research facilities in lasers, laser material interactions, laser produced plasma, Optoelectronics and photonics, etc. The main equipment includes high power femto-second Ti-Sapphire Laser, Nitrogen Laser, Nd: YAG Laser, Diode Lasers, KrF&XeCl Excimer Laser, high resolution three stage optical microscope, heating furnace, Nanodiamond Fabrication Facility, Solid Oxide Fuel Cell Fabrication Facility and much other equipment related to above mentioned fields.

**(ii) Nanotechnologies Research Centre**

The Nanotechnologies Research Centre (NRC) was established in 2008 in Department of Physics to focus on precision engineering or tailoring of materials at nano scale. In addition to provide the nano scale research facilities, the NRC also has created programs to attract researchers and to facilitate the scientists.

Nanotechnology Research Centre (NRC) has the following state-of-the-art laboratories

1. Nanofabrication
2. Diagnostic & Characterization

The labs are equipped with Atomic Force Microscope (AFM), Raman Spectrometer, AC Electrodeposition set up, DC Electrodeposition set up, Magnetic Field Annealing System, Multifunctional Generator and Magnetic Stirrer with hot plate etc.



## B.Sc. Physics

## Semester 1

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHYS-101	Mechanics	3	0
PHYS-101L	Mechanics (Lab.)	1	0
IS- 101	Islamic and Pakistan Studies- I	3	0
MATH-101	Calculus-I	3	0
CS - 101	Computing Fundamentals	2	0
CS – 101L	Computing Fundamentals (Lab.)	1	0
CY- 151	Introduction To Physical Chemistry	2	0
CY- 151L	Introduction To Physical Chemistry (Lab.)	1	0

## Semester 3

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHYS-201	Waves & oscillations	3	0
PHYS-201L	Waves & oscillations (lab.)	1	0
PHYS-202	Heat & thermodynamics	3	0
MGT-100	Introduction to business	3	0
PHYS-203	Solid state physics i	3	0
MATH-204	Linear algebra	3	0
HU-204	Foreign language (any)	1	0

## Semester 5

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHYS-311	Concepts of Modern Physics	3	0
PHYS-311L	Modern Physics (lab.)	3	0
PHYS-312	Mathematical Methods of Physics-I	3	0
PHYS-313	Nuclear Physics-I	3	0
PHYS-314	Electrodynamics-I	3	0
PHYS-315	Quantum Mechanics-I	3	0
QT-301	Translation of the Holy Quran-III		

## Semester 7

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHYS-441	Statistical Methods in Physics	3	0
PHYS-442	Lasers Physics	3	0
PHYS-442L	Lasers & Optics (lab.)	1	0
PHYS-443	Thermal and Statistical Physics	3	0
PHYS-444	Computational Physics	3	0
PHYS-445	Semiconductor Optoelectronics	3	0

## Elective Subjects

Course No.	Subject (Pre-requisites)
PHYS-491	Advanced Electronics (Elective-I)
PHYS-491L	Advanced Electronics (lab.) / Project (Elective-I)
	OR
PHYS-492	Atmospheric Science and Meteorology (Elective-II)

## Semester 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
HU-221	Technical Writing and Presentation Skills	3	0
IS- 201	Islamic And Pakistan Studies - II	3	0
MATH-104	Calculus-II	3	0
PHYS-102	Electricity and Magnetism	2	1
PHYS-102L	Electricity and Magnetism (Lab.)	3	0
CY- 111	Introduction to Analytical Chemistry	3	0
CY- 111	Introduction to Analytical Chemistry (lab.)		
LQT-101	Translation of the Holy Quran-1		

## Semester 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
HU-111	Communication Skill	3	0
PHYS-204	Selectronics -I	3	0
PHYS-204L	Electronics (Lab.)	3	0
PHYS-205	Physical and Geometrical Optics	2	1
MATH-205	Ordinary Differential Equations	3	0
PHYS-206	Classical Mechanics	1	0
MGT-102	Sociology	1	
QT-201	Quran-II		

## Semester 6

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHYS-321	Mathematical Methods of Physics-II	3	0
PHYS-322	Nuclear Physics-II	3	0
PHYS-323	Electrodynamics-II	3	0
PHYS-324	Quantum Mechanics-II	3	0
PHYS-325	Electronics -II	3	0
MGT-211	Principles of Management	3	0

## Semester 8

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHYS-446	Solid State Physics-II	3	0
PHYS-447	Health and Medical Physics	3	0
PHYS-448	Plasma Physics	3	0
QT-401	Translation of the Holy Quran-IV	1	0

PHYS-492L	Atmospheric Science and Meteorology (lab.)/Project (Elective-II)
	OR
PHYS-493	Physics at Nanoscale (Elective-III)
PHYS-493L	Physics at Nanoscale (lab.) / Project (Elective-III)
	OR
PHYS-494	Quantum Plasmas (Elective-IV).
PHYS-494L	Quantum Plasmas (lab.) / Project (Elective-IV).
	OR
PHYS-500	Thesis (Elective-V)



## DEPARTMENT OF HUMANITIES, MANAGEMENT AND SOCIAL SCIENCES

### Dean

Prof. Dr. Muhamma Shahid Rafique

### Chairman

Ms. Amna Niazi

### Assistant Professors

Ms. Alia Naushahi

Ms. Mehvish Riaz

Ms. Sadia Gondal

### Lecturer

Ms. Sadia Khan

Ms. Saida Usman Khan

Ms. Sadaf Qureshi

Ms. Sara Khan

Ms. Hina Samar

### Introduction

The general objective of the courses in the Department of Humanities and Management Sciences is to groom the students and broaden their perceptions according to the dictates of modern times. The Department offers courses such as Communication Skills, Functional English, Report Writing, Industrial and Engineering Economics for Planners and other management subjects. Since the engineers are responsible members of commercial enterprises and technical associations of a relatively high caliber, these disciplines help them to perform better in their job assignments and become high achievers in their respective fields.

English being the medium of instruction for all technical and scientific disciplines in Pakistan, the Department offers courses in Technical English and Technical Report Writing. The Department also offers a course entitled Ethics and Pakistan Studies, especially designed for Non-Muslim students, who take it up in lieu of a compulsory course that is Islamic and Pakistan Studies. Short courses in Spoken English are also taught specially in summer.



## DEPARTMENT OF ISLAMIC STUDIES

### Dean

Prof. Dr. Muhammad Shahid Rafique

### Associate Professors

Dr. Atiq ur Rahman

Dr. Muhammad Nadeem Shah

Ms. Gul Saria Ashraf

Dr. Tanveer Qasim

### Chairman / Professor

Dr. Hafiz Muhammad Shahbaz

### Assistant Professors

Dr. Hafiz Zahid Latif

Dr. Hafiz Quadratullah

The curricula in the University include compulsory and optional subjects. Islamic & Pakistan studies are included in the compulsory subjects. The underlying purpose of teaching this subject to the students of engineering disciplines is to impress upon them the richness of Islamic culture, heritage and civilization and the role played by Islamic ideology in guiding the Muslims of the sub-continent towards their most cherished goal of an independent home land, Pakistan. After inculcating in them the Cultural, Social, Economic, Political and historical aspects of Islamic civilization, the students would be able to protect and promote Islam, not only as a religion but as a system in Pakistan and in the world as well. For the realization of these objectives, the Islamic Studies was introduced in the University as an optional subject in 1961. In the subsequent years, due to its importance this subject was made compulsory for all the Muslim students and its scope was progressively enlarged. Now the Department teaches Islamic Studies to all undergraduate programmes. In 1982 the Government of Pakistan prescribed Pakistan Studies as an essential component of the syllabi at all levels of education. Since then the Department is teaching this subject also. The University welcomed the idea of the Governor of Punjab to teach *Qur'ānic* translation to the students of bachelor's degree programs. So the subject "Translation of the Holy *Qur'ān*", one credit hour course per year, is being taught to the undergraduate students since 2020. The Department has a computer lab and a library rich with high quality research books. In addition to all these activities, some faculty members of the Department have been delivering Friday Sermon in Jami' Mosque UET.



## INSTITUTE OF BUSINESS AND MANAGEMENT

### Dean

Prof. Muhammad Shahid Rafique

### Director

Dr. Muhammad Nasir Malik

### Assistant Professors

Dr. Abdul Aziz Khan Niazi

Dr. Amir Ikram

Dr. Bilal Aziz

Dr. Farah Samreen

Dr. Farman Afzal

Dr. Kanwal Iqbal Khan

Dr. Muhammad Shoaib Farooq

Dr. Naeem Akhtar

### Lecturers

Aeisha Altaf

Aftab Shoukat

Farid Pervez Shami

Maria Khan

Maryam Farooq

Muhammad Zia-ul-Haq

Quratulain Akhtar

Rabia Naseem

Rizwana Hameed

Saad Mahmood

Sadaf Razzaq

Safia Kanwal

Samreen Malik

Sara Kanwal

Zarmeena Malik

Zunaira Iftikhar

### Introduction

A dynamic and ever-changing business environment creates a strong demand for management professionals to perform exceptionally through proactive and informed decisions. For organizations to meet this emerging demand, the University of Engineering and Technology (UET), Lahore established the Institute of Business and Management (IB&M) in 2009, which aligns with the UET's long-held tradition of innovation, professional excellence and industry-oriented education. IB&M provides a combination of robust curriculum, highly qualified faculty with remarkable research contribution, well-equipped business school premises, and a myriad of student support services that synergize into a memorable and rewarding learning experience.

## Degree Programs

The Institute offers the following undergraduate and graduate degree programs.

### Undergraduate Degree Programs:

- a) BBA (Hons)
- b) BBIT (Hons)

### Graduate Degree Programs:

- a) MBA (30 Cr. Hrs. For Business Bachelors)
- b) MBA (60 Cr. Hrs. For Non-Business Bachelors)
- c) Executive MBA
- d) MS Management

*Graduate programs are offered in morning and evening/weekend timings.  
For program timings, refer to the admission advertisement.*

## Facilities

- IB&M has always relied on technology-intensive methods for teaching and learning. At IB&M, a state-of-the-art computer laboratory provides a vibrant and high-tech environment that caters to the learning needs of our students.
- The library at IB&M offers a wide array of advanced educational services. It is equipped with over 6,000 books related to curricula and general knowledge and periodic journals to promote scholarly interests and research activities.
- IB&M organizes different demand-driven activities, such as training programs, international conferences, seminars, workshops, business idea competitions, industrial tours and recreational trips. The blend of curricular and extra-curricular activities enables the students to perform extraordinarily in their professional and personal lives. The graduates of IB&M are making their mark in many industries across the globe.



Faisalabad Campus





### Campus Coordinator

Prof. Dr. Syed Waqas Ahmad

Faisalabad, the Manchester of Pakistan contributing major portion of Pakistan's GDP holds a campus of University of Engineering and Technology (UET) Lahore since 2004. The reason of choosing Faisalabad city for establishing a campus of UET was Faisalabad being third largest metropolis and a major industrial centre in the heart of Pakistan.

Healthy academic environment with highly qualified faculty members, state-of-the-art laboratories, dedicated academic and administrative staff; all add to the production of competent and professional engineers at the campus.

Other than many industries, Faisalabad is renowned for its textile industry. There was no department offering degree in the field of Textile at UET. To cope up with this, Department of Textile Engineering and Technology was established at Faisalabad. Other than Textile, the campus has the following departments:

- Department of Electrical, Electronics and Communication Engineering
- Department of Mechatronics and Control Engineering
- Department of Chemical and Polymer Engineering
- Department of Textile Engineering
- Department of Humanities, Basic Sciences and Islamic Studies

Following undergraduate degrees are offered in the stated departments:

- a) B.Sc. Electrical Engineering
- b) B.Sc. Mechatronics and Control Engineering
- c) B.Sc. Chemical Engineering
- d) B.Sc. Textile Engineering
- e) B.S. Environmental Sciences

## Department of Electrical, Electronics and Communication Engineering

### Chairman

Dr. Muhammad Akram

Dr. Muhammad Nasir

Dr. Aashir Waleed

Ms. Mariam Mughees

Mr. Waseem Arshad

Mr. Rameez Javed

### Associate Professors

Dr. Muhammad Akram

### Lecturers

Dr. Yasir Jamal

Mr. Muhammad Ahsan ul Haq

Mr. Habibullah Manzoor

Mr. Zain Shabbir

Mr. Azeem Iqbal

Mr. Ali Raza

Mr. M. Ali Raza

Ms. Munazza Sadaf

### Assistant Professors

Dr. Faizan Dastgeer

### Introduction

The advancing theoretical and practical research in the field of electrical engineering has called for the production of highly competent engineers. The Department of electrical engineering at Faisalabad campus offers its students mature academic facilities so that they can compete with the world's pace of advancement. The first two years of study comprise of basic electrical engineering courses along with the courses from basic sciences. The third year offers core electrical engineering courses that help students to make up their choice for fourth year where they have the liberty to adopt between advance courses of Power, Electronics and Communications.

### Courses of Study

The Department offers:

- a) B.Sc. Electrical Engineering
- b) M. Sc. Electrical Engineering

The Department follows the Mission and PEOs of the Electrical Engineering Department Lahore.

### Laboratories

The following laboratory facilities are available at the Department

- Electric Circuits
- Electric Machines
- Antenna and MicroWave
- Digital Electronics
- Power Electronics
- Power Systems
- Control Systems
- Digital logic Design
- Semiconductor Devices
- MicroProcessor Systems
- Analog Electronics
- Communication Systems
- Electrical Instrumentation
- Physics

## Department of Mechatronics and Control Engineering

### Chairman

Prof. Dr. Hassan Ijaz

Dr. Asif Ishfaq

Dr. Imran Mehmood

Mr. Zia ur Rehman

Mr. Umar Siddique Virk

Mr. Muhammad Umair

### Assistant Professors

Dr. Nasir Ahmad

Dr. Awais Hafeez

Dr. Ahmad Ali

Dr. Hashim Iqbal

Dr. Muhammad Usman

Dr. Farhan Maqbool

Dr. Imran Ali

### Lecturers

Dr. Asim Ghaffar

Ms. Ammara Kanwal

Mr. M. Usman

Mr. S. M. Umar

Dr. Abdullah Tahir

Mr. Dilruba Siddiq

Mr. Abdullah Tahir

Mr. Waqas Arshad

Mr. Hassan Mujtaba

Mr. Saqib Zafar

Mr. M. Imran

Mr. Saeed Ahmad

Mr. M. Tanveer Riaz

### Introduction

Mechatronics is amalgam of Mechanical and Electrical Engineering. The need of Mechatronics arose as a result of requirement of professionals in both Mechanical and Electrical domains in industries as well as in research. The Department at Faisalabad campus equipped with state-of-the-art laboratories fulfils the need of time. The Department offers complete understanding of Mechanical Devices in coordination with electrical devices so that the students learn the root and stem benefits of Mechatronics.

### Courses of Study

The Department offers:

- B.Sc. Mechatronics and Control Engineering

### Laboratories

- Embedded Systems
- Instrumentation and Measurement

- Industrial Automation
- Simulation
- Control Systems
- Thermodynamics
- Mechanics of Materials
- Power Electronics
- Engineering Mechanics

## Department of Chemical and Polymer Engineering

### Chairman

Prof. Dr. Syed Waqas Ahmad

### Associate Professor

Dr. Faisal Saleem

### Assistant Professors

Dr. Muhammad Danish  
 Dr. Khalid Mehmood  
 Dr. Rabia Sharif  
 Dr. Haji Ghulam Qutab  
 Dr. Faisal Saleem  
 Dr. Abdul Rehman

### Lecturers

Ms. Iqra Saleem  
 Ms. Saba Gul  
 Mr. Aiman Shabbir  
 Mr. Muhammad Imran  
 Mr. Muhammad Mudassar

### Introduction

Chemical industry requires highly qualified and competent professionals for its growth. The Department at Faisalabad campus with its highly qualified and professionally trained faculty members maintains excellent repute of producing engineers with professional abilities. The Department holds well equipped laboratories to coordinate the theoretical knowledge with practical skills in quite a successful fashion. The course of study starts with the first two years focusing on the basics of Chemical Engineering. The third year holds the importance of backbone, where in depth knowledge of Chemical Engineering is given to the students. The fourth year is specialization year in which students specialize in different fields of Chemical Engineering.

### Courses of Study

The Department offers:

- a) B.Sc. Chemical Engineering
- b) M. Sc. Chemical Engineering

The Department follows the Mission and PEOs of the Chemical Engineering Department Lahore.

### Laboratories

- Chemical Process Industries
- Fluid Flow
- Thermodynamics
- Particle Technology
- Chemical Reactor Design
- Unit processes
- Heat Transfer
- Environmental Engineering
- Mass Transfer
- Energy Engineering
- Chemistry
- Simultaneous Heat and Mass Transfer

## Department of Textile Engineering

### Chairman

Dr. Muhammad Mohsin

### Associate Professors

Dr. Muhammad Mohsin

### Assistant Professors

Dr. Shaheen Sardar  
 Dr. Aamir Abbas  
 Dr. Usama Bin Humayoun

### Lecturers

Ms. Sidra Ghaffar  
 Mr. Muhammad Ahsan  
 Mr. Khurram Shehzad Akhtar  
 Ms. Wardah Anam  
 Mr. Nasir Sarwar

### Course Offered

- a) B.Sc. Textile Engineering
- b) M.Sc. Textile and Materials Engineering
- c) Ph.D. Textile Engineering

### Introduction

The textile sector in Pakistan has an overwhelming impact on the economy, contributing 60% to the country's exports and 46% of the total industrial production. This sector provides employment opportunities to 45% of the country's workforce. In today's highly competitive global environment, the textile sector needs to upgrade its processes, machinery, supply chain, improve productivity, sustainability and maximize the value-addition for survival. It cannot be thought of without competent professionals in the relative field. Faisalabad campus is privileged over other campuses of UET for holding a degree awarding department in Textile Engineering field.

The course of study is composite and covers all four section of textile:

- Spinning (Yarn Manufacturing)
- Weaving (Fabric Manufacturing)
- Wet Processing (Pre-treatment, Dyeing & Finishing)
- Garment Manufacturing

The Department started offering B.S. Textile in 2013, M.Sc. Textile and Materials Engineering in 2020 and Ph.D. Textile Engineering in 2021 with highly qualified faculty and well-equipped laboratories. There are more than 100 lab scale equipment installed at the Department of textile engineering in the following labs.

### Laboratories

- Mini Spinning Lab-complete range (Pakistan's first and unique lab)
- Pilot Spinning Lab
- Knitting Lab
- Wet Processing Research Lab
- Testing Lab (Physical & Chemical)
- Garment Manufacturing Lab
- Textile Recycling Lab
- Weaving Lab
- Pre-treatment, Dyeing & Finishing Lab
- Textile Chemical Synthesis and Polymerization Lab
- Scanning Electron Microscope Lab
- Pattern Cutting Lab

### Mission

The mission of the Department of textile engineering is to prepare engineers capable of solving complex textile engineering problems, using strong fundamental knowledge and modern ideas, thus serving the national industry while maintaining the international standards.

### Program Educational Objectives (PEOs)

- PEO-01:** Graduates can develop and implement real-world applications making use of the fundamental knowledge and advanced ideas gained during the textile engineering program.
- PEO-02:** Graduates can generate innovative and sustainable solutions to complex engineering problems contributing towards the global competitiveness of the national textile industry.
- PEO-03:** Graduates are able to develop their careers professionally with due considerations to technological, socio-economical, environmental and ethical challenges.

## B.Sc. Textile Engineering

## Semester 1

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
TEX-101	Textile Engineering Fundamentals	2	1
CY-105	Applied Chemistry-I	2	1
ME-102	Mechanical Engineering Fundamentals	3	0
CS-103	Computing Fundamentals	2	1
HU-104	Communication Skills	2	0
MA-105	Applied Mathematics-I	3	0

## Semester 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
IS-101	Islamic and Pakistan Studies-I	3	0
TEX-102	Textile Raw Materials and Science	2	1
EE-199	Basic Electrical and Electronics Engineering	3	1
MA-106	Applied Mathematics	3	0
CY-106	Applied Chemistry	2	1
ME-100L	Workshop Practice	0	1
QT-101	Translation of The Holy Qur'an-I	1	0

## Semester 3

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHY-103	Applied Physics	2	1
TEX-202	Yarn Preparatory Processes	2	1
TEX-203	Weaving Preparatory Processes	2	1
TEX-204	Pre-treatment of Textiles	2	1
IS-201	Islamic and Pakistan Studies-II	3	0
HU-205	Technical Writing	3	0

## Semester 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
TEX-205	Yarn Production Engineering	3	1
TEX-206	Dyestuff and Color Science	3	1
TEX-207	Clothing Anthropometry and Pattern Construction	2	1
TEX-208	Computer Application in Textile	3	1
QT-201	Translation of The Holy Qur'an-II	1	0

## Semester 5

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
TEX-301	Textile Testing and Quality Control	2	1
TEX-302	Weaving Mechanisms and Advancements	3	1
TEX-303	Textile Dyeing and Printing	3	1
TEX-304	Sewn Product Engineering	3	1
MA-205	Applied Statistics and Probability	3	0

## Semester 6

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
TEX-306	Advance Spinning techniques	3	1
TEX-307	Knitting Operations	3	1
TEX-308	Textile Finishing	3	1
TEX-305	Technical Textiles and Nonwovens	3	0
MGT-318	Entrepreneurship and Management	2	0
QT-301	Translation of The Holy Qur'an-III	1	0

## Semester 7

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
TEX-401	Specialty Yarns	2	1
MGT-418	Engineering Management	3	0
TEX-403	Senior Design Project I	0	3
TEX-406	Clothing Quality Control	3	1
HU-404	Professional Ethics and Procurement	3	0

## Semester 8

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
TEX-404	Senior Design Project II	0	3
TEX-405	Industrial Engineering in the Clothing Industry	3	1
MGT-415	Environment, Health and Safety	3	0
QT-401	Translation of The Holy Qur'an-IV	1	0
TEX-402	Fabric Structure and Design	3	1

The Department is working in close collaboration with the top Pakistani textile industry. The Department has developed anti-viral masks, PPEs, innovative banana fabric and other range of innovative products and processes. The Department is the member of the Society of Dyers and Colourists, UK. The Department also won the only prize for Textile Processing Technologies at the 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup> Invention to Innovation Summit 2017, 2018 and 2019. The Department's students have won the second place at the EU mask competition 2020.

There is 100% job placement for the graduates of the Department and around 75% of the students receive the job offer before the graduation. Graduates of the Department are currently working in some of the top mills of the country such as Nishat, Interloop, Crescent, Kamal, Master, Sapphire, CBL, Sadaqat, Artistic, US Apparel, TTI, US denim and Masood textile etc. Since 2018, every year the Department organizes three mega events of textile (International Conference on Sustainable Textile, Pakistan region SDC-UK textile design competition for students & Top Pakistani Textile Brands Tribute). Textile sustainability working group has also been announced at the 4<sup>th</sup> conference and more than 170 textile industry and stakeholders are already part of this initiative.

## Department of Humanities, Basic Sciences and Islamic Studies

### Chairman

Dr. Sajjad Ahmad

Dr. Muhammad Aslam

Dr. Abdur Rehman

Dr. Ilyas Ali

Dr. Sheeba Ghani

### Associate Professor

Dr. Sajjad Ahmad

Dr. Faisal Nawaz

Dr. Arshi Khalid

Mr. Kamran Shaheen

### Lecturers

Mr. Mohsin Sheraz

Ms. Saira Zahid

### Assistant Professors

Dr. Ghufrana Samin

Ms. Shazia Karim

Dr. Muhammad Yasir

### Introduction

The requirement of the establishment of the Department lies in the following points:

- Besides being skillful and technically strong, an engineer must possess excellent communication skills in order to express his ideas.
- Islamic studies being a major subject at undergraduate level all over the country.
- Mathematics is the mother of all sciences and engineering; a branch of science requires its students to be excellent at mathematics.
- The basic sciences that hold the base of engineering disciplines. One can never think of an engineer without the knowledge of basics of Physics and Chemistry.

### Courses of Study

The Department offers:

- B.S. Environmental Sciences

### Common Facilities at the Campus

#### Computer Laboratories

Four computer laboratories equipped with modern computers and operating systems are available for the students of the Campus. A central network connects with the systems and the staff of network administrator is available round the clock for monitoring and maintenance.

### Library

**Senior Librarian** Mr. Mian Tahir Gohar

The library has an excellent collection of books related to engineering as well as literature. Technical encyclopedias, dictionaries, handbooks all add to the

value of the library at the campus. The books are opened for issuance by students and faculty. Access to the HEC digital library is also available for downloading research papers and handbooks.

### **Book Bank**

The book bank holds more than three thousand books available for the students of the campus. A student can issue as much as five books for the whole semester. The strength of textbooks satisfactorily matches the strength of students of a particular semester so that maximum students get the benefit of textbooks.

### **Hostels**

The campus offers accommodation facility for the students domiciled other than Faisalabad. The hostel facility is provided on the basis of seniority and academic record.

### **Resident Tutors**

Dr. Yasir Jamal

Dr. Abdur Rehman

### **Transport**

The campus has its own fleet of buses for the transportation of students living in Faisalabad. The fleet includes six buses. The fleet also serves for industrial visits as well as visits to the main campus for different purposes.

### **Canteen**

The students and staff are facilitated with a canteen on the top floor of the library building so that they may refresh themselves during break time. Strict quality check is observed in this department.

### **Co-Curricular, Extra-Curricular and other Facilities**

Several societies work under a staff advisor, who is a faculty member, for organizing co-curricular and extra-curricular events. The campus provides the students plain grounds for sport activities. An annual sports activity is observed at the campus as well as students from other universities are welcomed to participate in different sport events. Literary and cultural events add to the flavor of co-curricular activities; our students are also encouraged to participate in the events held in other universities. A career development cell is also established whose prime job is to arrange training workshops and lectures by professionals from the industry. This aids in the development of university-industry liaison; students learn from the experience of speakers and become familiar with the environment of industries.



KSK Campus



## Department of Electrical, Electronics and Telecommunication Engineering

### Professor

Dr. Muhammad Kamran

### Associate Professor

Dr. Muhammad Ali

Dr. Faheem Gohar Awan

Dr. Hifsa Shahid

Dr. Ali Raza

### Assistant Professor

Dr. -Ing. Farooq Mukhtar

Dr. Bilal Wajid

Dr. Umar Rashid

Dr. Farrukh Arsalan

Dr. Haris Anwaar

Mr. Rafay Chughtai

Mr. Bilal Anwar

Mr. Usman Hasan

### Lecturer

Mr. Fahad Ijaz

Mr. Salim Butt

Ms. Ifrah Liaqat

Mr. Farhan Ahmed Butt

Mr. Rizwan Khan

Ms. Isra Nazir

Mr. Waqas Ahmad

Mr. Atif Naveed

Mr. Muhammad Umair

Mr. Syed Muhammad Furqan

Mr. Ammar Naseer

Ms. Iqra Farhat

The Department was inaugurated in 2007 as a mean to further enhance engineering developments in the region. Equipped with the most prestigious and ambitious labs, an incredibly well equipped library, state-of-the-art equipment and the latest research material to enable the students to form a firm grip on the leading technological and scientific innovations. The Department stands at the pinnacle of technological innovation and creativity designed to drive the world further in this field. The Department is involved in developing cleaner, safer, more sustainable energy sources which will help bring a quantum leap to the world. It also has a department library, a faculty room, a semester cell, industrial liaison office, a conference room, girl's common room, IEEE & IET student sections. The Department is working in close collaboration with industries and Chamber of Commerce.

### Mission

To generate electrical engineering professionals with knowledge, skills, ethics and innovation to contribute in socio-economic & environmental betterment of society.

### Program Educational Objectives PEOs

B.Sc. electrical engineering programs in the Department is designed to provide its graduates a solid educational foundation on which they can build successful and sustainable careers in electrical engineering, electrical technology or a related field. The objectives are:

**PEO-01:** Graduates will exhibit their proficiency of applying the knowledge (mathematics, science and engineering) and skills (modern tools) to solve complex engineering problems related to electrical engineering

**PEO-02:** Graduates will exhibit effective communication, teamwork, leadership as complements to technical competence.

**PEO-03:** Graduates will incorporate economic, environmental and sustainability considerations into the practice of electrical engineering and are contributors to society through their problem-solving capabilities.

**PEO-04:** Graduates will demonstrate professionalism and uphold ethical values with integrity and commitment to continue their life-long technical and professional development

### Laboratories

- |  |                           |                                  |
|--|---------------------------|----------------------------------|
| • Circuit Analysis                     | • Digital Logic Design    | • Electric Machines              |
| • Semiconductor                        | • Power System Simulation | • Control Systems and Automation |
| • Microprocessors and Computer Project | • Advanced Project        | • Microwave and Antenna          |

### Specializations Offered

Electrical Engineering with Specialization in Power System.

Electrical Engineering with Specialization in Computer and Embedded System.

Electrical Engineering with Specialization in Electronics and Telecommunication

## Department of Bio-Medical Engineering

### Dean:

Prof. Dr. Muhammad Kamran

### Chairman

Dr.-Ing. Abdul Rauf Anwar

### Associate Professors

Dr.-Ing. Abdul Rauf Anwar

Dr. Nida Iqbal

### Assistant Professors

Dr. Saima Anwar

Adnan Rauf

### Lecturers

Mr. Namra Afzal

Ms. Affifa Barakullah

Mr. Muhammad Usman

Mr. Muhammad Aamir

Mr. Muhammad Abdullah

Mr. Farhan Yousaf

Biomedical Engineering is the application of engineering principles and concepts in health sciences. Everything from corrective glasses to manipulation of genes lies within the scope of Biomedical Engineering. The Department is well-equipped with state-of-the-art laboratories and purpose-built class rooms. The curriculum is meticulously designed to not only provide students with extensive theoretical knowledge but also along with adequate hands-on experience. The Department is currently offering one study program,

### Programs Offered

- B.Sc. Biomedical Engineering

### Mission

To become the leading program of Biomedical Engineering by imparting methodical educational training to our students and preparing them to become innovative and socially responsible engineers in health care research and industry.

### Program Educational Objectives (PEOs)

**PEO-01:** Our graduates will solve problems related to Biomedical Engineering

**PEO-02:** Our graduates will work effectively as a team member and lead multidisciplinary teams while demonstrating the interpersonal and managerial skills, and ethical responsibilities

**PEO-03:** Our graduates will pursue higher education, research and professional advancement to develop sustainable solutions fulfilling societal needs

### Laboratories

Latest equipment has been inducted in the following labs and students are encouraged to utilize these lab facilities.

- Biomedical Instrumentation
- Biomaterials
- Bioengineering
- Human Anatomy & Physiology
- Simulation/Signal Processing
- Biomechanics
- Bioelectronics

## B.Sc. Biomedical Engineering

**Semester 1**

Year 1

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHY-111	Applied Physics	2	1
CS-141	Introduction to Computing	3	1
EE-199	Basic Electrical & Electronics Engineering	3	1
BME-104/MA-110	Basic Biology /Basic Mathematics	2,3	1,0
	International Language	0	0
BME-101	Introduction of Biomedical Engineering	1	0
IS-101	Islamic & Pak Studies 1	3	0

**Semester 3**

Year 2

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MA-116	Linear Algebra & Differential Equations	3	0
BME-201	Physiology 2	2	1
BME-214	Biochemistry	3	0
EE-212	Semiconductor Devices	3	1
ME-100L	Workshop Practice	0	1
HU-111L	Communication Skills	0	1
IS-201	Islamic & Pak Studies 2	3	0

**Semester 5**

Year 3

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
BME-310	Biomedical Instrumentation 1	2	1
EE-320	Applied Probability & Statistics	3	0
MA-346	Numerical Methods	3	0
EE-273	Microprocessor Systems	3	1
BME-313	Biomaterials	2	1
ME-124L	Engineering Drawing	0	1

**Semester 7**

Year 4

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MGT-XXX	Management Elective 1	3	0
BME-411	Medical Imaging	2	1
BME-XXX	Technical Elective 2	3	0
BME-XXX	Technical Elective 3	3	0
HU-221	Technical Writing & Presentation Skills	3	0
BME-412a	Biomedical Engineering Project Phase 1	0	3

**Semester 2**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
BME-103	Human Anatomy	2	1
MA-113	Calculus & Analytical Geometry	3	0
BME-102	Physiology 1	2	1
EE-110	Circuit Analysis	3	1
CS-142	Programming Fundamentals	3	1
QT-101	Quran Translation	1	0

**Semester 4**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
BME-213	Biomedical Electronics	2	1
CSE-221	Digital Logic Design	3	1
MA-221	Complex Variable & Transform	3	0
BME-202	Cellular & Molecular Biology	2	1
EE-220	Signals & Systems	3	0
QT-201	Quran Translation 2	1	0

**Semester 6**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
BME-318	Biomedical Instrumentation 2	2	1
BME-XXX	Technical Elective 1	3	0
EE-340	Control Systems	3	1
BME-244	Biomedical Modeling & Simulation	2	1
BME-212	Biomechanics	2	1
QT-301	Quran Translation 3	1	0

**Semester 8**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
BME-XXX	Technical Elective 4	3	0
IME-251	Social & Ethical Aspects in Engineering	2	0
BME-XXX	Technical Elective 5	3	0
MGT-XXX	Management Elective 2	3	0
BME-412b	Biomedical Engineering Project Phase 2	0	3
QT-401	Quran Translation 4	1	0

**Technical Electives**

(5 out of given 23 must be chosen)

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
BME-314	Bioelectricity	3	0
EE-392	Power Electronics	2	1
BME-433	Rehabilitation and Sports Medicine	2	1
BME-414	Biomedical Robotics	2	1
BME-415	Biofluid Mechanics	2	1
BME-416	Bioinformatics	3	0
CS-361	Artificial Intelligence	3	1
BME-418	Hospital Information Management Systems	3	0
BME-419	Medical Device Quality Systems and Standards	3	0
BME-420	Medical Image Processing	2	1
BME-423	Telemedicine Systems	2	1
BME-421	Biophysics	2	1
BME-425	DNA Computing	3	0
BME-316	Drug Delivery Systems	3	0
BME-444	Genetic Engineering	3	0
BME-432	Neuroscience & Neural Networks	3	0
BME-426	Regenerative Medicine	3	0
BME-427	Tissue Engineering	3	0
BME-317	Computational Fluid Dynamics	3	0
BME-428	Nano-Biotechnology	3	0
BME-429	Medical Device Regulatory Affairs	3	0
EE-439	Introduction to Machine Learning	3	0
BME-311	Biomedical Signal Processing	2	1

**Management Electives**

(2 out of given 6 must be chosen)

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
MGT 211	Principles of Management	3	0
MGT 310	Production and Operations Management	3	0
MGT 313	Total Quality Management	3	0
MGT 410	Project Management	3	0
MGT 414	Entrepreneurship and Business Management	3	0
MGT 460	Engineering Economics	3	0

## Department of Mechanical, Mechatronics and Manufacturing Engineering

**Chairman**

Prof. Dr. Shahid Imran

**Professors**

Prof. Dr. Fahad Noor

**Associate Professors**

Dr. Zahid Anwar

Dr. Muhammad Farooq

Dr. Muhammad Amjad

**Assistant Professors**

Dr. Muhammad Farhan

Dr. Rabia Shauka

Dr. Saad Nawaz

Dr. Fahid Riaz

Hafiz Muhammad Shahid Akbar

Mr. Muhammad Moeen Sultan

**Lecturers**

Mr. Muhammad Ali Shahbaz

Mr. Adnan Qamar

Ms. Anam Anwar

Ms. Samina Ishaq

Mr. Sheeraz Ali

Mr. Adeel Munir

Mr. Tahir Asif

Ms. Tamseela Habib

Mr. Syed Mohammad Sannan

Mr. Muhammad Ghufraan

## Introduction

Mechanical Engineering is one of the oldest and broadest engineering disciplines. The Department was established in 2007. The Department has procured latest laboratory equipments in order to conduct laboratory work of engineering and technology classes. The Department is growing and the leadership is committed to make it an excellent engineering education department. The Department has very active International Student Societies Chapters of American Society of Mechanical Engineers (ASME) and American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE). The Department hosted the international students' professional development conference (SPDC) in 2014. Students from national as well as international universities participated in the conference. A group of students represented the Asia Pacific section of the ASME in Houston, USA in November 2015. The Department has fully functional department library, Semester Cell, Quality Enhancement Cell (QEC), Industrial Liaison Office, a Conference Room, Girls' Common Room and a Prayer Hall.

## Mission

To provide rigorous technical and educational training to students and equip them with skills necessary to carry on lifelong learning and growth in their professional careers. We will prepare our students to become innovative, socially responsible engineers in industry, business, research, and academia.

## Programs Offered

The Department offers undergraduate courses of study leading to the following degrees:

- B.Sc. Mechanical Engineering

## Mechanical Engineering

### Program Educational Objectives (PEOs)

**PEO-01:** Graduates will become practicing engineers with the ability to solve application level problems related to core Mechanical Engineering and interdisciplinary fields.

**PEO-02:** Graduates will be able to pursue higher education, research and professional development in engineering and other related fields.

**PEO-03:** Graduates will demonstrate leadership qualities and professionalism in their chosen field of specialization.

**PEO-04:** Graduates will demonstrate social and ethical responsibility in their professional careers.

## Laboratories

- Thermodynamics
- Hydraulic Machinery
- Mechanical Workshops
- Refrigeration and Air Conditioning
- Mechanics of Machines
- Dynamics
- Fluid Mechanics
- CAD
- CNC
- Heat and Mass Transfer
- Mechanics of Material
- Internal Combustion Engines

## Department of Chemical, Polymer and Composite Material Engineering

### Chairman

Prof. Dr. Tanveer Iqbal

### Professor

Prof. Dr. Tanveer Iqbal

Prof. Dr. Syed Mohsin Ali Kazmi

### Associate Professor

Dr. Sikandar Rafiq

Dr. Hamayoun Mahmood

Dr. Muhammad Imran Rashid

### Assistant Professor

Dr. Ch. Haider Ali

Dr. Asthma Khan

Dr. Samreen Hameed

Dr. Izzat Iqbal Cheema

Dr. Asif Nadeem Tabish

Dr. Adeel Anwar

Dr. Asif Jamil

Dr. Zohaib Atiq Khan

Mr. Muhammad Raashid

### Lecturer

Dr. Qandeel Almas

Dr. Muhammad Irfan

Mr. Haris Mehmood Khan

Mr. Ahmed Hassam Khan

Mr. Muhammad Sulaiman

Mr. Fahad Ali Rabbani

Mr. Ansar Javaid

Mr. Qazi Muhammad Omer

Mr. Muhammad Zia ul-Haq

Ms. Azqa Khalid

Ms. Nazia Baig

### Introduction

The New campus started its B.Sc. Degree program in 2007. Since then, the Department has developed considerably in terms of labs and research facilities, opening new ways of interaction with different industries. Engineers use specialist scientific knowledge, analysis and innovative thinking to come up with creative solutions to real-world problems. They design new chemical processes and products, as well as improving the performance of existing ones. They are also involved in developing cleaner and more sustainable energy sources, and developing new materials for diverse application. The degree programs at The Department of Chemical, Polymer and Composite Materials Engineering cover all aspects of knowledge, skills and industrial motives to enable graduates with strong technical education for rapidly changing technological environment to pursue lifelong learning and to achieve professional success.

### Mission

The Department of Chemical, Polymer and Composite Material Engineering is committed to:

1. Provide outstanding undergraduate and graduate degree programs, educating engineers and technologists empowered with excellent technical, technological and leadership skills, integrity, and social responsibility.
2. Be recognized internationally as a leader in research and engineering science, creating novel and sustainable solutions to serve public interests and to address global challenges in areas such as health, energy, and environment.
3. Promote inclusive, safe, collaborative, and respectful community for learning and work.

### Program Educational Objectives (PEOs)

- PEO-01:** Demonstrate proficiency in Chemical Engineering knowledge through practice and research in engineering, scientific, and complementary disciplines
- PEO-02:** Achieve professional success with an understanding and appreciation of ethical behavior, social responsibility, and diversity, both as individuals and in team environments.
- PEO-03:** Pursue continued lifelong learning and career growth through professional practice, graduate studies, and other training programs in engineering sciences and management

### Programs Offered

- B.Sc. Chemical Engineering



### Laboratories

- Mass Transfer
- Process Heat Transfer
- Unit Processes
- Chemical Reaction Engineering
- Instrumentation and Control
- Environmental Engineering
- Fluid Flow
- Particle Technology
- Computers & Computation
- Energy Engineering
- Chemical Engineering Thermodynamics
- Research Lab

## Department of Basic Science and Humanities

### Chairperson

Prof. Dr. Aneela Anwar

### Associate Professor

Dr. Ahmad Shuaib  
Dr. Kashif Rehan  
Dr. Samina Akbar

### Assistant Professor

Dr. Rashid Munir  
Dr. Masood Ul Hassan  
Dr. Maryam Imtiaz  
Dr. Ayesha Riasat  
Dr. Umm-I-Kaloom  
Dr. Zulfiqar Ali

### Lecturer

Mr. Muhammad Usman  
Ms. Saba Ajmal  
Mr. Habib-ur-Rehman  
Mr. Hafiz Muhammad Mudassar

### Introduction

The Department of Basic Sciences and Humanities is predominantly occupied for establishing the significance of Basic Sciences and Humanities as bedrock for learning in realm of Engineering and Technology. In consonance with the vision of HEC and PEC, the doyens of the university agreed on allocating 30% of curriculum to these epistemological domains which, in turn, gave rise to the Department of Basic Sciences and Humanities. With an aim to forge sound roots in modes of rational inquiry and to accouter students with scientific, socio-cultural, aesthetic and oratory convictions the Department of Basic Sciences and Humanities has been offering a comprehensive array of subjects.

### Subjects Offered

The Department of Basic Sciences and Humanities has been offering the wide variety of subjects to form a bridge between the realms of engineering and basic sciences & humanities. These subjects are given below;

- Applied Chemistry
- Engineering Physics Lab
- Communication Skills
- Functional English
- Pakistan Studies
- Applied Physics
- Applied Mathematics
- Technical Writing and Presentation Skills
- Islamic Studies

### Laboratories

The Department possesses and takes care of five undergraduate state-of-the-art laboratories including Applied Chemistry, Applied Physics, Engineering Physics, Mechanics and Computer Labs. These laboratories are equipped with cutting edge equipment to enrich the learning experience of young minds along with the flavor of practical work. These laboratories also render invaluable technical support to the projects undertaken by other departments.

### Advanced Research Lab

An Advanced Research Laboratory was established in the Department of Basic Sciences and Humanities at UET NEW Campus in 2017 to initiate the multifaceted research activities and projects in the campus. This laboratory brings together scientists and engineers not only from different departments of UET but also from other institutes of Pakistan to collaborate on research and development. The major instruments which are available in this advanced

research lab include UV-spectrophotometer, FTIR, HPLC, GC-MS and Atomic Absorption. This advanced research lab has been serving research scholars not only of NEW campus but also the research scholars of other UET campuses. We are expecting successful applications of this research lab to develop a globally competitive research program with a wide vision to address and help in solving national and international problems in addition to addressing fundamental questions in science & technology.

### Nanotechnology Lab

The Department of Basic sciences & Humanities of New Campus is purpose-built campus with a well-equipped nanotechnology lab. This lab established in 2017. This lab includes all basic and essential instruments which are required in synthesis of nanoparticles including hot plates, heating mental, distilled water plant, fume hood and muffle furnace. The graduates of different departments including biomedical engineering, chemical engineering, mechanical engineering and electrical engineering perform their routine experiments in this lab. Likewise, this lab is also supportive and beneficial to the research scholars of different departments.

### Physics Research Lab (PRL)

Basic facilities for the fabrication of nanoparticles and deposition of thin films are available in PRL. Apparatus is available for the synthesis of nanoparticles through hydrothermal and co-precipitate method (DC Sputtering). Deposition of thin film by spin coater and magnetron sputtering is going to be installed soon in the lab. Recently PRL has won the NRPU funding to the tune of 7.2 million rupees for the development of new photoactive materials for degradation of pollutants. Lab is open for students of M.Phil. and Ph.D. from main campus to make use of the available facilities to promote and advance in the field of research.

- Advance Nano-material Research
- Bio-material / Nano ceramics
- Environmental Science
- Engineering Physics
- Physics Research
- Mathematics Computer
- Applied Chemistry
- Nano-material / Nano Catalysis
- Applied Physics
- Physics Research (Nanoparticles Synthesis)
- Applied Mechanics

### Faculty

The Department is privileged to have the gamut of highly qualified, experienced and specialized faculty with postgraduate and research degrees from the world renowned Universities. This dedicated faculty keeps themselves abreast of the latest developments in their respective disciplines. The faculty has regularly been participating in and carrying out seminars and symposia on national and international levels and has carved out a significant niche for themselves in their respective fields.

### B.S. Environmental Science

Environmental science is an interdisciplinary field that requires students to be challenged in combining skills and knowledge from different fields involving Chemistry, Physics, Geography, Earth and marine sciences, Biological and social sciences while focusing primarily on human impact on environment and how this impact can be channelize towards a more positive relationship between human and the ecosystem around him the idea is to combine multiple perspectives, disciplines and data sources, to build up a fuller understanding of natural and human environments.

### Mission

The aim of launching this program is to provide an educational environmental where quality education can be imparted to the youth and to involve various sectors of the society e.g engineers, technologists, doctors, policy makers, funding agencies, investors, importers, exporters, media educators and all sorts of professionals forming a joint effort to encounter environmental issues.

### Program Educational Objectives (PEOs)

The graduates will be able to

**PEO-01:** Apply the knowledge of chemical and physical sciences to provide solutions of environmental problems through advance tools of the field.

**PEO-02:** Acquire skills necessary for the management of environmental problems in multidisciplinary environment and demonstrate moral and ethical values in fulfilling professional and societal obligations.

**PEO-03:** Commitment to continue learning for the professional growth of society and conservation of sustainable environment.

## Department of Computer Science

### Chairman

Prof. Dr. Shahzad Asif

### Professor

Prof. Dr. Shahzad Asif

### Associate Professor

Dr. Muhammad Umar Qasim

### Assistant Professor

Dr. Farah Adeeba

Dr. Muhammad Irfan Yousuf

Dr. Qurat-ul-Ain

### Lecturer

Ms. Mufrah Naveed

Ms. Drakhshan Bokhat

Ms. Anam Iftikhar

Mr. Zeeshan Ramzan

Mr. Nadeem Iqbal

Mr. Aizaz Akmal

Ms. Namra Sheikh

Mr. Syed Adnan Ul Hassan

### Teaching Fellows

Mr. Usman Ahmed

Ms. Zahra Zulfiqar

Mr. Faizan Ahmed

### Introduction

The Department of Computer Science at the University of Engineering and Technology (UET) is one of the most prominent and oldest center of computer education in the country. To meet the growing demand of computer science education, UET established a Computer Science Department at its New Campus located in Kala Shah Kaku in 2016. The Department of Computer Science at the New Campus offers B.Sc. degree programs in Computer Science and Software Engineering. The Department is home to modern technologies and highly skilled faculty to prepare students for the jobs of the future.

### Courses of Study

The Department offers the following degree programs

- a) B.Sc. Computer Science
- b) B.Sc. Software Engineering

### B.Sc. Computer Science

#### Mission

To disseminate computing education to the students of the Department emphasizing entrepreneurship and ethical standards while encouraging them to remain abreast with latest developments in computing tools and processes and use their skills to identify and find solution to society's problems, and to use department's resources and computing expertise to help industry, government and community in solving their problems.

**Semester 1**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-161	Programming Fundamenta	3	1
CS-102	IsIntroduction to Computing	3	1
HU-102	Functional English	3	0
MA-123	Calculus	3	0
PHY-111	Applied Physics	2	1
ME-100L	Workshop Practice	0	1

**Semester 3**
**Year 2**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-261	Data Structures and Algorithms	3	1
HU-221	Technical writing and Presentation Skills	3	0
CS-271	Computer Organization and Assembly Language	3	1
MA-234	Linear Algebra	3	0
CS-261	Discrete Mathematics	3	0

**Semester 5**
**Year 3**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-364	Information Security	3	0
CS-371	Artificial Intelligence	3	1
CS-301	Professional Practices in Software Development	3	0
CS-39x	Computer Science Elective-1	3	0
CS-165	Software Engineering	3	1

**Semester 7**
**Year 4**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-465	Final Year Project-I	0	3
CS-471	Compiler Construction	3	1
CS-49x	Computer Science Elective-4	3	0
IS-101	Islamic & Pakistan Studies-I	3	0
CS-49x	Computer Science Elective-5	3	0

**Semester 2**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-162	Object Oriented Programming	3	1
CMPE-222	Digital Logic Design	3	1
HU-240	Psychology	3	0
HU-111L	Communication Skills (Lab)	0	1
MA-224	Multi-Variate Calculus	3	0
MA-343	Applied Probability & Statistics	3	0
QT-101	Translation of Holy Quran	1	0

**Semester 4**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-262	Database Systems	3	1
CS-263	Operating Systems	3	1
MA-228	Differential Equations	3	0
CS-272	Design and Analysis of Algorithms	3	0
CS-273	Theory of Automata	3	0
QT-201	Translation of Holy Quran	1	0

**Semester 6**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-373	Computer Networks	3	1
CS-39x	Computer Science Elective-2	3	0
CS-39x	Computer Science Elective-3	3	0
CS-380	Graph Theory	3	0
CS-372	Parallel and Distributed Computing	3	0
QT-301	Translation of Holy Quran	1	0

**Semester 8**

Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-466	Final Year Project-II	0	3
MGT-414	Entrepreneurship & Business Management	3	0
IS-201	Islamic & Pakistan Studies-II	3	0
HU-XXX	International Language	0	0
MGT-424	Leadership Strategies	3	0
QT-401	Translation of Holy Quran	1	0

## B.Sc. Software Engineering

### Mission

The mission of the Bachelor of Science degree in Software Engineering is to educate students how to engineer and maintain software systems within constraints and prepare them for lifelong learning. The program will produce successful professionals and entrepreneurs who can define, design, develop and deliver high quality software solutions while adhering to ethical and professional standards.

## B.Sc. Software Engineering

Semester 1		Year 1	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-102	Introduction to Computing (ITC)	3	1
CS-161	Programing Fundamentals (PF)	3	1
HU-102	Functional English (FE)	3	0
MA-123	Calculus	3	0
PHY-111	Applied Physics (APH)	2	1
ME-100L	Workshop Practice (WP)	0	1

Semester 3		Year 2	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-261	Data Structures & Algorithms (DSA)	3	1
SE-221	Introduction to Human Computer Interaction	3	0
SE-211	Software Requirement Engineering (SRE)	3	0
MA-343	Applied Probability & Statistics	3	0
HU-111L	Communication Skills LAB	0	1
QT-201	Translation of the Holy Quran	1	0

Semester 5		Year 3	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
SE-323	Software Construction and Development (SC&D)	2	1
CS-366	Computer Networks (CN)	3	1
HU-221	Technical Writing and Presentation Skills	3	0
xx-xxx	SE-Elective-I	3	0
CS-3xx	SE-Supporting-I	3	0
QT-301	Translation of the Holy Quran	1	0

Semester 7		Year 4	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
SE-441	Software Project Management	3	0
SE-442	Software Re-Engineering	3	0
xx-xxx	SE-Elective-III	3	0
xx-xxx	SE-Elective-IV	3	0
MGT-414	Entrepreneurship and Business Management	3	0
CS-465	FYP-I	0	3

Semester 2		Year 1	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-162	Object Oriented Programming (OOP)	3	1
IS-101	Islamic and Pak Studies-I	3	0
CS-163	Discrete Mathematical Structures (DMS)	0	0
CS-165	Software Engineering (SE)	3	1
MA-116	Linear Algebra and Differential Equations	3	0
QT-101	Translation of the Holy Quran	1	0

Semester 4		Year 2	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
CS-263	Operating Systems (OS)	3	1
CS-262	Database System	3	1
SE-222	Software Design & Architecture (SDA)	2	1
HU-240	Psychology	2	0
IS-201	Islamic and Pak Studies-II	3	0
MGT-103	Sociology for Engineering	2	0

Semester 6		Year 3	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
SE-331	Software Quality Engineering	3	0
CS-364	Information Security	3	0
CS-301	Professional Practices in Software Development	3	0
SE-324	Principles of Web Engineering	2	1
xx-xxx	SE-Elective-II	3	0
CS-xxx	SE-Supporting-II	3	0

Semester 8		Year 4	
Course No.	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
xx-xxx	SE-Supporting-III	3	0
xx-xxx	SE-Elective-V	3	0
CS-466	FYP-II	0	3
MGT-424	Leadership Strategies	3	0
HU-xxx	International Language	0	0
QT-401	Translation of the Holy Quran	1	0

Rachna Campus



**Incharge**

Dr. Haroon Farooq

**The College**

The College was inaugurated on 15<sup>th</sup> January 2003; by the then Governor of the Punjab Lt. Gen. (R) Khalid Maqbool. It is located on the left bank of Nokhar Branch Canal about seven kilometers off (East) G.T. Road, between Gakhar and Wazirabad. The area is near to industrial cities of Gujranwala, Sialkot and Gujrat. The campus is spread over an area of 73 acres.

**College Status**

RCET was declared the Constituent College of University of Engineering & Technology, Lahore on 22-12-2006. Same rules & regularizations, regarding admission, examination, award of degree etc. as adopted by UET, Lahore, are followed. The up-gradation of RCET to Rachna University of Engineering & Technology was announced on 24-06-2008 on the directions of the then Prime Minister of Islamic Republic of Pakistan.

**Programs Offered**

Currently, courses at undergraduate and postgraduate levels are being offered. All B.Sc. Engineering courses are accredited by the Pakistan Engineering Council.

**Undergraduate**

- B.Sc. in Electrical Engineering
- B.Sc. in Mechanical Engineering
- B.Sc. in Industrial & Manufacturing Engineering
- B.Sc. (Honors) Computer Science

## Department of Electrical Engineering

**Head of Department**

Dr. Ata-Ur-Rehman

Adnan Bashir

Muhammad Rehan Arif

Moazzam Shehzad

**Lecturers**

Engr. Waqas Ali

Engr. Hira Ali Jamal

Engr. Irzam Shahid

Engr. Salman Tariq

**Assistant Professors**

Dr. Haroon Farooq

Dr. Tayyeb Mehmood

The Department of Electrical Engineering was established in 2003. Currently the Department has a student enrollment of around 200. So far by year 2017-18, around 400 students have graduated from the Department. The Department offer undergraduate B.Sc. Electrical Engineering Degree. The program is accredited with Pakistan Engineering Council. Being a constituent college of UET, Lahore the Electrical Engineering Department follows the same curriculum as that of Electrical Engineering Department, UET, Lahore.

**Mission**

To provide sound technical and educational training to students and equip them with skills necessary to carry on lifelong learning and growth in their professional careers. To prepare the students to become innovative, socially responsible and ethically groomed engineers in industry, business, research and academia.



### Program Educational Objectives (PEOs)

- PEO-01:** To produce employable graduates with core mathematical, scientific and engineering concepts in the domain of Electrical Engineering.
- PEO-02:** To produce creative engineers equipped with sound research abilities and analytical problem solving skills using modern tools to undertake real world challenges and pursue higher education.
- PEO-03:** To produce graduates who will demonstrate social and ethical responsibility in their professional careers.
- PEO-04:** To demonstrate leadership, communication, and managerial skills.

## Department of Mechanical Engineering

### Head of Department

Dr. Hassan Ali

### Assistant Professors

Dr. Tariq Nawaz Chaudhary  
Dr. M. Salman Abbasi  
Mushtaq Ahmad  
Humble Bin Khalid  
Muhammad Qasim

### Lecturers

Muhammad Kashif Jamil  
Abdul Rehman Riaz  
Hafiz Muhammad Suleman  
Aaqib Imdad  
Jawad Ahmad

### Associate Professor

Dr. Hassan Ali

### Laboratories

The following laboratories have been setup at Mechanical Engineering Department:

- Energy Resources & Utilization
- Fluid Mechanics/Hydraulic Machinery
- I.C Engines
- Heat Transfer
- H.V.A.C
- Engineering Mechanics
- Mechanics of Materials
- Instrumentation & Control
- Mechanics of Machines
- CAD / FEA
- Mechanical Workshops
- Machines Shop
- Fitting Shop
- Foundry Shop
- Carpentry Shop
- Electrical Shop
- Welding Shop

## Department of Industrial & Manufacturing Engineering

### Head of Department

Dr. Qasim Ali Ranjha

Mr. Muhammad Shahzad  
Mr. Ahmad Raza Khan  
Mr. Muhammad Awais Ahmad

Mr. Awais Sohail  
Mr. Muhammad Nouman Khalid  
Mr. Ehtisham Riaz

### Assistant Professors

Mr. Muhammad Aslam  
Mr. M. Mohsin Ahmad Sadiq  
Dr. Ubaid-Ur-Rehman Ghori

### Lecturers

Mr. Ahmad Sheraz Cheema  
Dr. Muhammad Harris

### Laboratories

The following laboratories have been setup at Industrial & Manufacturing Engineering Department:

- Machine Tools and Machining
- Industrial Materials
- Manufacturing Processes
- Metrology and Quality Assurance
- Production and Operations Management
- Plant Engineering
- Engineering Drawing
- Instrumentation and Control

## Department of Computer Science and Engineering

### Head of Department

Dr. Abdul Jaleel

### Assistant Professors

Mr. Shahid Islam  
Dr. Tayybah Kiren

### Laboratories

- Programming Lab
- Systems Lab

### Lecturers

Mr. Noman Sohaib Qureshi  
Ms. Amna Wajid  
Dr. Natasha Nigar  
Ms. Uroosa Bilal Chaudhry  
Mr. Muhammad Shehzad Aslam

Ms. Saira Arif

Mr. Abu Bakar Siddique

## Department of Natural Science, Humanities and Islamic Studies

### Head of Department

Dr. Majid Hussain (Mathematics)

### Assistant Professors

Dr. Adnan Aslam (Mathematics)

Dr. Syed Mazhar Shah (Chemistry)

Dr. Atta-ur-Rehman Makhdoom (Physics)

Mr. Liaquat Ali Tahir (Mathematics)

Mr. Muhammad Abdullah (Islamic Studies)

### Lecturers

Ms. Faiza Bushra (Mathematics)

Mr. Ahmad Ali (English)

### Common Facilities

#### IT Facilities

An on campus state-of-the-art computer laboratory provides research and simulation facilities to the students. Moreover, high speed internet facility providing access to international research journals is also available at library.

#### Library

There are more than 6000 books of various disciplines available at the library. The college also has access to the digital library (having more than 25,000 eBooks) being maintained by UET, Lahore. Information Resource Lab is set up in the library, which is equipped with various computers and Internet facility. Under Mega Project funded by HEC, Rs. 30 million has been reserved for the construction of new main central library.

#### Accommodations

There are five hostels with the capacity of 350 students. There is separate hostel for female students. All hostels are equipped with the internet facility.

#### Transport

Transport is provided to the day-scholars from Gujranwala to the college and back to Gujranwala. Boarders also enjoy the facility twice a week for shopping and recreational tours.

#### Medical Centre

A medical centre with all necessary medicines is being managed by a MBBS Doctor who is on the roll of the College and available round the clock.

### Mosque

The College has spacious, beautiful and well-furnished mosque, which can accommodate available strength at Campus for prayers.

### Cafeteria and Canteen

A reasonably spacious cafeteria with lawns is available to the students, where food, cold drinks, tea and other utility items are available at the market rates. Moreover, a sizeable canteen and two fruit shops to meet the requirements of students and staff members at the campus exists at the College.

### Sports

The College along with the academic activities lays proper emphasis on sports and games. Currently the College has following sports facilities:

- Badminton Courts 02
- Foot Ball Ground 01
- Cricket Ground 01
- Table Tennis 01
- Basket Ball Court 01
- Volley Ball Court 01
- Gymnasium 01

### Societies

Currently the following societies are organizing different events, seminars and workshops to enhance mental, physical, creative, literary and dramatic skills of the students to meet different challenges in their professional careers.

- Cultural, Dramatic and Entertainment Society (CDES)
- Literary and Debating Society (LDS)
- Blood Donating Society (BDS)
- Rachna Students Support Society (RSSS)
- Society of Electrical Engineering Department (SEED)
- Institute of Electrical & Electronics Engineers, RCET Chapter (IEEE)
- American Society of Mechanical Engineering, RCET Chapter (ASME)
- Society of Industrial and Manufacturing Engineering (SIME)

### Administrative Staff

**Assistant Registrar**

**Incharge Library**

**Administrative Officer (Accounts)**

**Non-Academic Advisor**

**Hostel Warden**

**Medical officer**

Mr. Aftab Ahmad Khan

Dr. Hassan Ali

Mr. Muhammad Mazhar Ali

Mr. Humble Bin Khalid

Mr. Muhammad RehanArif

Dr. Jannat Nawaz

**Incharge Examinations**

**Transport Officer**

**Incharge Cafeteria/Canteens**

**Incharge Sports**

Mr. Liaquat Ali Tahir

Mr. Adnan Bashir

Mr. Adnan Bashir

Mr. M. Awais Ahmad

Narowal Campus



### Campus Coordinator

Prof. Dr. Muhammad Shahbaz

University of Engineering and Technology Lahore, Narowal Campus established in 2012, offers multiple Bachelor level Engineering Programs. Engineering Classes initially started in post Graduate Block of Islamic Degree College Narowal on temporary basis in 2012. Currently Narowal Campus is shifted to its own state-of-the-art / under construction, buildings situated at around 10 Km from Narowal city on Muridky Narowal road. The beautifully architectural designed buildings are constructed on a vast land of around 200 acres which has been arranged by Government of the Punjab. Around 750 students are studying in this campus in different engineering disciplines of Electrical, Mechanical, Civil, Computer Science & Engineering and Biomedical Engineering Programs.

## Department of Electrical Engineering

### Assistant Professors

Dr. Rana Tariq

Dr. Imran Javed

Dr. Khurram Hashmi

### Lecturers

Noor UIAin Mir

Amna Javeed

Shahbaz Bashir

Asia Rafique

Osama Bin Naeem

Muhammad Haseeb

### Mission

To provide comprehensive knowledge of Electrical Engineering to the students and to equip them with necessary skills so that they may lead fulfilling and rewarding careers. To prepare the students so that they become Electrical Engineering professionals of highest caliber.

### Introduction

Department of Electrical Engineering, Narowal Campus started working in 2012 at UET Lahore, Narowal. The mission of Electrical Engineering Department is to ensure understanding and application of electrical engineering fundamentals by inculcating analysis and design skills for the betterment of humanity and to become a center of excellence in the field of electrical engineering.

The students are laudably facilitated with well-equipped Laboratories, multimedia assisted class rooms, innovation center, scholarships and consistently updated Library.

### Program Educational Objectives (PEOs)

- PEO-01:** The graduates will acquire the knowledge and concepts of Electrical Engineering and the underlying principles of basic sciences and will utilize these skills to solve diverse Electrical Engineering problems in any professional setting.
- PEO-02:** The graduates will demonstrate passion to pursue lifelong learning related to concepts of mathematics, science and Electrical Engineering and because of this, they will be able to capture innovative concepts in the field of Electrical Engineering in higher education and industry.
- PEO-03:** The graduates will be active members of any organization that they aspire to join, and they will be proficient in team work and will demonstrate leadership in any professional setting.
- PEO-04:** The graduates will be able to display professionalism and uphold ethical values as responsible citizens and they will be aware of environmental challenges and sustainability issues which may arise from time to time.

### Programs

- B.Sc. Electrical Engineering

### Alumni

Five batches of Electrical Engineering Department with a total of 170 students have graduated and the alumni are working in various national and

international organizations.

### Regulatory Status

The undergraduate program of Electrical Engineering at Narowal Campus is accredited by PEC.

### Laboratories

The Department has the following well equipped laboratories which fulfill the academic needs of students and faculty:

Electric Circuits Lab	Electronics Lab
Systems Lab	Electrical Workshop and FYP Lab
Electrical Machines Lab	Computer Lab

### Extra-Curricular Activities

Seminars, Project Exhibitions, and workshops etc. are managed by IEEE Society, under the supervision of The Department.

## Department of Computer Science and Engineering, Narowal Campus

### Assistant Professor

Dr. Muhammad Idrees (HoD)

### Lecturers

Yassin ul Haq  
Iqra Muneer

Saadia Tariq  
Fatima Shahzadi  
Rabia Zafar

### Introduction

Department of Computer Science and Engineering, Narowal Campus started working in 2014 at UET Lahore, Narowal. The mission of Computer Science and Engineering Department is to equip the students with up-to-date curricula of Computer Science and Engineering disciplines, to ensure that the students have the solid foundations in core concepts in computing, to train them in problem solving and decision making skills and to prepare them for lifelong learning in the discipline. The students are given the sterling opportunity to get education of highest standards in pleasant and friendly atmosphere, and to make compatible with their means. The students are laudably facilitated with well-equipped Laboratories, state-of-the-art Computer Labs with Internet facility, multimedia assisted class rooms, innovation center, scholarships and consistently Updated Library.

### Program Educational Objectives (PEOs)

- PEO-01:** Excel in a career utilizing their education in Computer Science.
- PEO-02:** Continue to enhance their knowledge.
- PEO-03:** Be effective in multidisciplinary and diverse professional environments.
- PEO-04:** Provide leadership and demonstrate professional integrity.

### Programs

- B.S. Computer Science

### Regulatory Status

All requirements of NCEAC (HEC) governing bodies are completed. Sessions 2015 & 2016 have been accredited from NCEAC (HEC). Final visits for Sessions 2017, 2018 & 2019 are in process.

### Laboratories

Two fully furnished Computer Labs are available in The Department. Four Labs are at procurement stage and will be established soon at the Department.

### Extra-Curricular Activities

Gaming Competitions, Software Exhibitions, Free-lancing, Sports Activities, Annual Dinners, debating activities, etc. also managed by CODATOR Society, under the supervision of the Department.

## Mechanical Engineering Department (Narowal Campus)

### Assistant Professor

Engr. Dr. Saqlain Abbas (HOD)

### Lecturers

Nazim Waheed  
Shahid Farooq  
Tanveer Mukhtar

M. Lolak  
Umar Ishaq  
Asif Jalal  
Sufyan Matloob

### Mission

To produce mechanical engineers equipped with knowledge and skills to carry on lifelong learning through quality teaching and training. Our graduates shall be able to serve for the sustainable development of the society while demonstrating professional ethics and responsible social conduct

### Introduction

The Department of Mechanical engineering was established in 2012. Currently it has an enrolment of 175 students at undergraduate level. So far by year 2020, five batches holding 197 students have graduated from the Department and are serving at national & international level.

### Program Educational Objectives (PEOs)

**PEO-01:** Apply the knowledge to solve analytical and practical mechanical engineering problems. (Engineering Capabilities)

**PEO-02:** Work for the continuous professional and sustainable socio-technical development. (Societal Development and Lifelong Learning)

**PEO-03:** Demonstrate professional ethics, effective communication and managerial skills. (Ethics, Management and Communication)

### Programs Offered

B.Sc. Mechanical Engineering

### Students Society's

ASME Narowal Chapter

### Existing Laboratories

Engineering Mechanics  
Hydraulic Machinery  
Mechanics of Machines  
Metrology & Quality Assurance

Fluid Mechanics  
Mechanics of Materials  
Workshops  
Computer lab

## Department of Civil Engineering

### Lecturer

Dr. Muhammad Shoaib Karam (HoD)

Intezar Hussain  
Muhammad Tahir  
Sehrish Khan  
Muhammad Mohsin  
Adeel Faisal

Sohail Ahmad  
Ahad Ali  
Usman Anwar  
Muhammad Usmaan



Department of Civil Engineering at Narowal campus established in 2013. First batch of Civil engineers graduated in 2017 and almost all have successfully secured jobs. Around 160 students are currently enrolled in Civil Engineering Department in different sessions. The Department has highly qualified faculty from USA, Germany, Japan, China and Pakistan.

The Department of Civil Engineering excels in innovative teaching and research, in developing practical applications and approaches to problems associate in field and areas of study, and in making professionals and leaders who will have worldwide influence on technologies and societies.

### Program Offered

- B.Sc. Civil Engineering

### Mission

To impart high quality Civil Engineering education through modern teaching and research for the national and international socio-economic development.

### Program Educational Objectives (PEOs)

**PEO-01:** Graduates demonstrate their proficiency of applying the knowledge & skills to solve complex Civil engineering problems.

**PEO-02:** Graduates communicate effectively and contribute in the project team.

**PEO-03:** Graduates uphold principles of ethics and integrity throughout their professional practices.

**PEO-04:** Graduates engage themselves in continuous professional learning process.

### Laboratories

The Department has the following well equipped laboratories which fulfill the academic needs of students and faculty that includes:

- Surveying
- Computer
- Environmental Engineering
- Engineering Mechanics
- Geotechnical Engineering
- Concrete
- Fluid Mechanics

## Department of Biomedical Engineering

### Assistant Professors

Dr. Farooq Ahmad (HOD)

Dr. Muhammad Umair Ahmad Khan

Dr. Muhammad Rehan Chaudry

### Lecturer

Umber Warraich

Aqib Nasim

Abdul Hanan Taqi

Biomedical Engineering is an interdisciplinary field that takes design concepts from multiple science and engineering domains including Electrical, Mechanical, Computer Science, Mathematics, Physics and Biology. Biomedical engineers are professionals who can effectively integrate the knowledge from the fields to design solutions for health industry in the areas of clinical equipment management, implantable medical devices, rehabilitation, medical robotics etc. Today, with the increasing progress in the medical science, there is a growing demand for technical experts who understand complex engineering challenges and work closely with the healthcare professionals for a continuous improvement in human health standards. A budget of Rs. 175 million has been allocated and state-of-the-art laboratory facilities are being furnished to meet the needs of the modern curriculum.

### Mission

To become the leading program of Biomedical Engineering by imparting methodical educational training to our students and preparing them to become innovative and socially responsible engineers in health care research and industry.

### Program Education Objectives (PEOs)

**PEO-01: Knowledge and Skills**-Our graduates will solve application-level problems related to Biomedical Engineering.

**PEO-02: Interpersonal, Leadership and Work Ethics**-Our graduates will work effectively as a team member and lead multidisciplinary teams while demonstrating the interpersonal and managerial skills, and ethical responsibilities.

**PEO-03: Socio-economic and Life-long learning**-Our graduates will pursue higher education, research and professional advancement to develop sustainable solutions fulfilling societal needs.

### Program Offered

- B.Sc. Biomedical Engineering

## Basic Sciences & Humanities Department

### Assistant Professors

Dr. Habib Hussain (HoD)  
Dr. Muhammad Yousuf  
Dr. Imran Aslam  
Dr. Absar Ul Haq

### Lecturers

Mr. Muhammad Zeeshan Ashraf  
Mr. Tahir Shahzad  
Ms. Farheen Samra  
Ms. Rabia Shaukat  
Ms. Anjum Naseem Rao

Mr. Muhammad Ishaq Malik

### Introduction

Basic Sciences and Humanities (BS & H) Department was established in 2012 in UET Lahore, Narowal campus. To inculcate quality education, 12 highly qualified faculty members have been employed.

The Department involves teaching courses of Chemistry, Physics, Mathematics, Communication skills, Business administration, Psychology and Pakistan & Islamic studies, in connection with all the programmes offered by Engineering departments. The Department aims to provide the students with a broad perception and incorporate in them the idea of integrated nature of engineering and social aspects of professional life. The Department also provides trainings to increase linguistic proficiency.

### Laboratories

The Department has following well-equipped laboratories to fulfill academic needs of students and faculty as well:

- Physics
- Chemistry

Rules & Regulations  
Relating to Admissions,  
Examinations & Discipline



## IMPORTANT INFORMATION

### 1. Definitions

- a) "University" means the University of Engineering and Technology, Lahore
- b) "College" means the Constituent/Affiliated College of the University
- c) "Faculty" means the concerned faculty of the University
- d) "Vice-Chancellor" means the Vice-Chancellor of the University
- e) "Pro Vice-Chancellor" means the Pro Vice-Chancellor of the University
- f) "Dean" means the Dean of the concerned faculty
- g) "Principal" means the Principal of a college
- h) "Chairman" means the Chairman of the concerned department of the University/College
- i) "Controller" means the Controller of Examinations of the University
- j) "Student" means a bonafide student of a degree program of the University who does not maintain admission simultaneously in any other degree/diploma program of the University or in any other Institution
- k) "Candidate" means a student who intends to appear in an examination
- l) "Board of Studies" means the Board of Studies of the concerned discipline of the University/College

### Explanations

The pronoun "he" and its derivatives are used for both male and female persons.

Depending upon the context, the words imparting the singular number include the plural number as well.

### 2. Modification of Rules and Regulations

The rule and regulations governing various aspects of students' life at the University (such as discipline, admissions, examination, migration, fees and charges, etc.) are given in this prospectus as they stood at the time of its publication. There is no guarantee that these rules and regulations will remain unchanged throughout a student's stay at the University, nor does it in any way restrict or curtail the inherent powers for the University authorities to modify them whenever in their judgment any modifications are called for, and to implement the modified rules and regulations from a date which they deem appropriate.

### 3. Special Provisions

- a) In all cases where the regulations are silent, the decision of the Vice-Chancellor shall be final.
- b) Interpretation of these rules and regulations by authorized officers of the University shall be final.
- c) The University authorities reserve the right to make any changes in the existing regulations, rules, fee structure and courses of study that may be considered necessary at any time without prior notice.
- d) No student is allowed to maintain simultaneous enrollment in any other program of studies in the University or any other educational institution within or outside Pakistan, unless permitted by the competent authority as an Exchange Student.
- e) In case a student enrolled in this University is found to be a regular student of some other university/institution, whether local or foreign, his admission in this university shall be canceled.
- f) Students are required to know the rules and regulations mentioned in the prospectus and notified time to time. Ignorance of rules and regulations does not absolve them of their responsibilities and shall not be treated as an excuse.
- g) The Vice-Chancellor has been authorized by the Syndicate, on the recommendations of the Deans, to make amendments in these regulations and remove any difficulties faced during implementations of these regulations.

### 4. Liability for Injury, Damage and Loss

The University teaching programs include training in its workshops and laboratories, places of engineering and architectural interest, industrial concern, and construction jobs. The University or other concerns shall not be responsible in the event of an injury, damage or loss to a student resulting from any cause whatsoever during the course of such training.

# UNDERGRADUATE SEMESTER REGULATIONS

## 1.0 Introduction

The following regulations govern the Semester System of teaching and examination for the Undergraduate degrees awarded by University of Engineering and Technology (UET), Lahore.

- a) The Undergraduate degrees offered at the University under Semester System are classified as Bachelor of Science (B.Sc. and B.S.) and Bachelor. B.Sc. degrees are offered in Engineering disciplines, Technology disciplines, Computer Science and City and Regional Planning. Bachelor's degrees are offered in Architecture, Product and Industrial Design, Business Administration and Business Information Technology. B.S. degree is offered in Chemistry, Mathematics and Physics.
- b) Masculine gender used in the following regulations implies male students as well as female students.
- c) The term faculty member or instructor or teacher when mentioned in these regulations would refer to the concerned faculty member or instructor or teacher, if not mentioned as such.
- d) The medium of instructions and examinations shall be English for all subjects except Islamic Studies and Pakistan Studies for which the medium of instructions and examinations may be either Urdu or English.
- e) The term "Academic Year" refers to the period of study at the University spread over one calendar year period. Academic year is further divided into semesters.
- f) The term "Contact Hour" refers to a 50 minutes period of contact with the students.
- g) The term "Credit Hour (CH)" refers to a unit of academic credit during a semester. Each credit hour is related to a one or more "Contact hours per week" according to subject type and the semester in which it is offered as defined in these regulations.
- h) The term "Pre-requisites" refers to subjects that must be successfully completed prior to registration in a subject requiring these pre-requisites.
- i) The term "Co-requisite" refers to subjects that must be registered simultaneously if studied for the first time. During repetition, simultaneous registration of such subjects is not necessary.
- j) The term "Tutor" refers to a teacher appointed as an advisor and counselor to a group of students and the term "Tutorial" refers to a scheduled session with their tutor.

## 2.0 Degree Duration

- a) The minimum duration of the undergraduate degree programs shall not be less than four academic years in case of Engineering, Engineering Technology, Computer Science, City and Regional Planning, Product and Industrial Design, Business Administration, Business Information Technology, Chemistry, Mathematics, Physics and five academic years in case of Architecture.
- b) The maximum duration of the degree program shall not be more than six academic years for programs with a minimum duration of four academic years and seven academic years for programs with a minimum duration of five academic years.

## 2.1 Extension Beyond Maximum Duration

- a) The Vice-Chancellor may grant extensions up to a maximum period of one year beyond the maximum duration for completing requirements for the award of degree. Students requiring extension may apply to the Vice-Chancellor for this purpose.
- b) A student would be separated from the University if he requires extension beyond one year.
- c) Separated students can apply to the Vice Chancellor for re-admission. If their application is accepted, the concerned department will transfer subjects from the previous registration in accordance with the prescribed rule and assign them to an Entry Session for the purpose of computing their maximum degree duration. They will be allotted new entry session as per the recommendation of the department and new registration number.
- d) A re-admitted student will not be granted second re-admission if he is separated again from the University.

### 3.0 Student Status

- a) Students shall be classified (1) on the basis of number of credit hours registered in a semester and (2) on the basis of credit hours completed.
- b) The students are classified as per the following nomenclature on the basis of credit hours registered during a semester:
  - i. Students registering in at least 12 credit hours during fall and spring semesters and 6 credit hours during summer semester within the minimum duration of their respective degree program shall be called "Regular".
  - ii. Students shall be classified as "Casual" students if they register in less than 12 credit hours during fall and spring semesters and less than 6 credit hours during summer semester; Or they register in subjects after completion of their minimum degree duration period.
- c) The students are classified as per the following nomenclature on the basis of credit hours completed:
  - i. "First Year" students if they have successfully completed less than or up to 32 credit hours of prescribed syllabus;
  - ii. "Second Year" students if they have successfully completed more than 32 credit hours but up to 68 credit hours of prescribed syllabus;
  - iii. "Third Year" students if they have successfully completed more than 68 credit hours but up to 104 credit hours of prescribed syllabus;
  - iv. "Fourth Year" students, in case of five years degree program only, if they have successfully completed more than 104 credit hours but up to 136 credit hours of prescribed syllabus;
  - v. "Final Year" students if they have successfully completed more than 104 credit hours, in case of a four degree program, and more than 136 credit hours, in case of a five years degree program, of prescribed syllabus.

### 4.0 Credit Hours Requirements

The credit hours required for the award of degree may range from a minimum of **134** to a maximum of **140** for degree programs with minimum duration of four academic years and from a minimum of **166** to a maximum of **174** for degree programs with minimum duration of five academic years. These will include a minimum of 6 credit hours of "final year design project" or equivalent spread over two semesters.

### 5.0 Semesters Nomenclature, Duration and Registration Matters

- a) There shall be two regular semesters, namely Fall and Spring semesters, and an optional summer semester during each academic year.
- b) Fall and spring semesters will be spread over 16 to 18 weeks including examinations with at least 15 study weeks during the semester. The duration of summer semester will be 8 weeks including examinations with weekly contact hours being double from those of fall and spring semesters.
- c) The maximum and minimum permissible number of students to be allowed registration in a subject section will be decided by the concerned Board of Studies.
- d) Students may consult their tutors for registration guidelines.
- e) Registration limits for students are given as under:
  - i. First year and second year students may be allowed to register in at most 19 credit hours during fall and spring semesters.
  - ii. Students of third year and beyond may be allowed to register in at most 22 credit hours during fall and spring semesters.
  - iii. At most 8 credit hours during summer semester.
- f) Registration will only be allowed in a subject if the prerequisites, if any, of this subject have been completed successfully.
- g) Registration in a subject section will be closed if the maximum permitted number of students has registered in it.
- h) A subject section will be closed if less than the minimum numbers of students register in that section. Such students who have been denied registration due to a closure of a section may add some alternate subject(s) during add and drop period.
- i) During summer semester, selected subjects will be offered in accordance with departmental policy for summer semester.

### 6.0 Curriculum and Classification of Subjects

- a) The curriculum, subject identification numbers, the credit hours allocated to each subject and detailed syllabus shall be according to the proposals made by the Board of Studies and the Board of Faculty concerned and approved by the Syndicate on the recommendations of the Academic Council.

- b) Subjects are classified as:
- c) "Theory" wherein the primary mode of teaching shall be lectures given by teachers supplemented by home assignments. For the purpose of these regulations, subjects of this type shall be referred to as Type-A;
- b) "Practical" wherein the primary mode of teaching shall be experiments, studio laboratory, designs, drawings, assignments and projects conducted/executed by students as specified in the syllabus. For the purpose of these regulations, subjects of this type shall be referred to as Type-B;
- c) "Comprehensive Projects" wherein students engage in design and development of a project under direct supervision of teachers in a laboratory/studio/workshop/industry, spread over one or two regular semesters in an academic year. For the purpose of these regulations, subjects of this type shall be referred to as Type-C.

### 7.0 Type-A Subjects Evaluation and Contact Hours

- a) In Type-A subjects, there shall be a mid-term examination of at least one hour duration and a comprehensive final examination of at least one and a half hour duration. These examinations shall carry 30 and 40 percent weight, respectively. The comprehensive final examination will include 20% questions from pre-mid term syllabus. The teacher shall schedule additional assessment instruments such as quizzes, assignments, presentations, seminars, group discussions, field study reports etc., as specified in the syllabus or as determined by the teacher. These assessment instruments shall carry the remaining 30% weight of the subject.
- b) There shall be one contact hour per week during Fall and Spring semesters and two contact hours per week during Summer semester for each credit hour assigned to Type-A subjects.

### 8.0 Type-B Subjects Evaluation and Contact Hours

- a) In Type-B subjects, each Experiment, Studio work, Jury Presentation, Design, Drawing, Project or Assignment shall be considered as an independent assessment instrument. Cumulative performance in all independent assessment instruments shall form the basis for evaluating a student.
- b) There shall be two to three contact hours per week during Fall and Spring semesters and four to six contact hours per week during Summer semester for each credit hour assigned to Type-B subjects.

### 9.0 Type-C Subjects Evaluation and Contact Hours

- a) In Type-C subjects, each exercise, project or assignment shall be assessed for process during its life time (Continuous Assessment) while the end product shall be assessed, right after its submission, through Viva-Voce /Jury examination (Terminal Assessment).
- b) Continuous Assessment and Terminal Assessment of Type-C subjects may carry 60 and 40 percent weight, respectively.
- c) External Examiners/Jurors shall be involved in the assessment of all Type-C subjects.
- d) There shall be two to four contact hours per week during Fall and Spring semesters for each credit hour assigned to Type-C subjects.

### 10.0 Award of Letter Grades

- a) The subject teacher, having interacted with the students, taught them and having assessed them over the semester, shall award letter grades to the students. Chairman of the concerned degree awarding department will be consulted while finalizing the letter grades. Letter grade in each Type-A subject shall be awarded on a Relative Scale whereas, letter grade in Type-B and Type-C subjects may be awarded on an absolute scale if deemed fit by the subject teacher.
- b) Following steps in awarding letter grades on a relative scale may be followed:
  - i. Minimum marks threshold linked to content mastery shall be established for award of a passing letter grade. Students earning marks below this threshold shall be awarded "F" grade,
  - ii. Expected maximum marks threshold shall also be established. Student(s) crossing the maximum threshold, if any, will be awarded "A+" grade. The grade points of "A+" and "A" are same. As such, it is expected that only exceptional students demonstrating outstanding results are given recognition by award of this grade.



- iii. Students earning marks between the maximum and minimum thresholds are listed in descending order of merit and the average and standard deviation is computed,
  - iv. Passing letter grades are awarded according to the table given below, with "A" being the highest passing grade and "D" being the lowest passing grade.
  - v. The cluster of students falling within half standard deviation of average marks may be graded as "C+" or "B-";
  - vi. Other passing letter grades may be awarded on the basis of clusters of students within narrow ranges for a population less than 100; Or on a normal curve basis if the population of students is more than 100;
  - vii. It is not essential that every class should have all letter grades awarded, that is, it is possible that a class does not have any student below the minimum threshold; Or in another scenario in which no student, in the opinion of the instructor, is eligible for the award of "A" grade. There may be cases where no student qualifies for some intermediate grade.
  - viii. An upper limit on percentage of students in a subject who can earn a particular passing grade may be placed, if required.
- c) The letter grades and their corresponding grade points (GP) are given in the table below:

**Table**  
**Letter Grades & Corresponding Grade Points**

A+	A	A-	B+	B	B-	C+	C	C-	D+	D	F	W	WF	I	IP
4.0	4.0	3.7	3.3	3.0	2.7	2.3	2.0	1.7	1.3	1.0	0	-	-	-	-

- d) Subjects repeated to improve grades, excluding "W" or "WF" grades, will be shown on the transcript with a suffix "R".
- e) The subject teacher may award an "F" grade to a student if he is convinced, while checking the answer script of mid-term or final examination that the student has cheated. The subject teacher will give opportunity to the student to defend himself before award of this "F" grade.

## 11.0 Result Matters

### 11.1 Result Computation Method

The Grade Point Average (GPA) and Cumulative Grade point Average (CGPA) shall be computed according to the following formula

$$GPA = \frac{\sum_{i=1}^n (GP_i \times CH_i)}{\sum_{i=1}^n CH_i}$$

$$CGPA = \frac{\sum_{i=1}^m (GP_i \times CH_i)}{\sum_{i=1}^m CH_i}$$

where  $n$  is the number of subjects in the semester for which GPA is being computed.

where  $m$  is the number of total subjects covered in all semesters up to the semester for which CGPA is to be computed.

### 11.2 Authority to Compute Results

Grade Points (GP) in each subject, Semester Grade Point Average and Cumulative Grade Point Average of each student shall be computed and notified by the Controller of Examinations at the end of each semester.

## 12.0 Award of "W", "WF", "I" and "IP" Grades

### 12.1 Withdrawal ("W" Grade)

- a) A student may be allowed to withdraw from a subject in which he is registered. Applications (Form 1) to withdraw from a subject shall be entertained latest up to the 6<sup>th</sup> study week during Fall and Spring semesters and up to 3<sup>rd</sup> study week during Summer semester. Withdrawn subjects shall appear in the transcript with a letter grade "W" and shall not be used in computation of GPA. In the transcript, subjects repeated

- after withdrawal will not be suffixed with a "R".
- b) If a student withdraws from a subject, which he is repeating, the previous grade earned will be retained in computation of CGPA and in assessing degree completion requirements.

### 12.2 Forced Withdrawal ("WF" Grade)

- a) A student registered in a subject may not be permitted to continue due to shortage of attendance or other disciplinary action. Such students shall be awarded a "WF" (Forced Withdrawal) grade. It shall appear in the transcript as such and shall not be used in computation of GPA. Subjects repeated after forced withdrawal will not be suffixed with "R".
- b) If a student is withdrawn from a subject, which he is repeating, the previous grade earned will be retained in computation of CGPA and in assessing degree completion requirements.
- c) A student who does not drop a subject nor appears in any assessment instrument will not be eligible for "WF" grade and will be awarded an "F" grade.

### 12.3 Incomplete "I" Grade

A student, who because of illness or any other acceptable fails to complete the required instruments in any subject may be awarded an "I" (Incomplete) grade as an interim grade. Students having less than 50% attendance will not be eligible for award of this grade. This grade shall appear in the transcript temporarily until it is replaced by the actual grade and will not be treated as "F" grade. The student receiving such a grade shall make up the unfinished portion of his subject to the satisfaction of the faculty member who awarded this grade, and is given a letter grade as per regulation 10 at the discretion of the faculty member without prejudice to the previous grade "I". In case, the student fails to complete the unfinished portion within the following semester his "I" grade would be converted to "F" grade by the Controller of Examinations. The responsibility for completing the unfinished portion and satisfying the faculty member lies with the affected student.

### 12.4 In Progress "IP" Grade

- a) Type "C" subjects, like theses, projects, studio work etc., spread over more than one semester may be graded as "IP" until completion of these subjects. This grade shall be recorded in the transcript and will not be treated as "F" grade.
- b) Each portion of a Type "C" subject spread over two semesters may have been prescribed different nomenclature and different subject code. First portion of such a subject may be graded as "IP" upon completion, if the department decides to award the final letter grade upon completion of the second portion.
- c) It shall appear in the transcript as such and shall not be used in computation of GPA. Grades assigned in the semester in which the subjects are completed will be used in computation of Semester GPA with total credit hours of the subjects being counted for this purpose.

## 13.0 Repetition of Subjects

- a) Students are permitted to repeat subjects to improve their grades in a semester within their maximum credit hours registration limit.
- b) Separate repetition of Type B part or Type A part of a subject, which is combination of Type A and Type B, is permitted.
- c) In case of repetition of a subject, the new grade earned shall replace the previous grade, whether high or low in calculation of CGPA.

## 14.0 Probation and Separation

### 14.1 Academic Probation

A student will be placed on academic probation if his CGPA falls below 2.0 after any semester.

### 14.2 Separation

- a) A student will be separated from the University if he remains on probation for a number of consecutive semesters as per schedule given below:
- First year students as defined in these regulations: Two consecutive semesters. Advantage of repetition during summer, falling in between or after the two regular semesters on probation, being given to the student.
  - Second year students as defined in these regulations: Three consecutive semesters. Advantage of repetition during summer, falling in between or after the two regular semesters on probation, being given to the student.
- b) Students after completing their second year as defined in these regulations will not be separated on account of academic probations.

- c) A student would be separated from the University if he requires extension beyond one year in the maximum permissible period for completion of degree requirements.
- d) Students who do not register in any subject during their first semester after admission will be separated from the University.
- e) Students have the option to freeze or skip a semester by not registering in any subject during that semester (other than first semester). However, they will be separated if they do not register in any subject in a semester without intimating their decision to the Students Section.

#### 14.3 Disposal of Separated Students

- a) Separated students can apply to the Vice-Chancellor for re-admission. If their application is accepted, Examination branch will transfer subjects from the previous registration in accordance with the prescribed rule and assign them to an Entry Session for computing their maximum degree duration. They will be allotted new registration number.
- b) A re-admitted student will be required to pay the admissible dues for one extra year even if he completes his degree requirements with his original entry session or a semester later.
- c) A re-admitted student will not be granted second re-admission if he is separated again from the University.

#### 15.0 Changing Discipline after Admission

- a) A student, after first year of study at the University, may opt for change in discipline. The minimum admission merit of the discipline, being opted for, must be equal or lower than the merit of the opting student at the time of his admission.
- b) The student opting to change his discipline after first year must apply to the Vice-Chancellor through his Chairman and the Dean. Acceptance shall depend on the availability of seats in the opted discipline.
- c) On acceptance of his request, the student shall start afresh with credit being given for any University core subjects studied in the first year in the original discipline. He will be issued new registration number and his maximum permissible duration count will start afresh.
- d) Students cannot opt for change in discipline after their second year at the University.

#### 16.0 Award of Degree and Merit Position

- a) Students, who are eligible for the award of degree, are required to submit a Degree Requirements Completion Form (Form 2) to their respective chairman for onward submission to the Controller of Examinations. Degree status would be decided only after receipt of this form.
- b) Students shall qualify for the award of undergraduate degree if they earn a minimum CGPA of 2.0 and they satisfy the following conditions:
  - i. Have no compulsory outstanding subject with "W", "WF", "I" and "F" grades during all semesters of a degree program.
  - ii. Have repeated elective subjects in which "W", "WF" or "F" grades have been earned or have studied alternate elective subjects in lieu of these to fulfill the credit hours requirement.
  - iii. Have completed the prescribed number of credit hours.
- c) Students shall qualify for a "Degree with Honours" if they satisfy the following conditions:
  - i. Have earned a CGPA of 3.70 or above out of a maximum of 4.00.
  - ii. Have not repeated a subject.
  - iii. Have not withdrawn from a subject with a "W" or "WF" grade; and
  - iv. Have not earned an "F" grade in any core or elective subject during the course of study.
- d) Medals and merit positions will only be awarded to students having earned degree with honours. The awards will be based on the CGPA earned at the time of graduation. Comparison will be made within the students of same entry session graduating in the minimum permissible duration. Immigrating and re-admitted students will not be eligible for any medal or merit position.

#### 17.0 Dean's Honour Roll

At the end of each semester, there shall be a "Dean's Honour Roll" of students earning a Semester GPA of 3.7 and above without any "W" or "WF" or "F" grade while registered in at least 15 credit hours during that semester. There shall not be any Dean's Honour Roll for summer semester result.

### 18.0 Grievance Committee and Grade Change Request

- a) The examination regulations provide sufficient transparency by mandating teachers to show result of all assessment instruments including final examination to their students. Sufficient time is provided to students, even after finalization of the award list, to point out errors and omissions and get them rectified. As such, the following aspects will neither be reviewed nor discussed while interpreting the provisions of this regulation:
  - i. Marks awarded by the teacher in any of the assessment instruments.
  - ii. Letter grade thresholds.
- b) A student has two options for redress of grievances. The first option can only be exercised during the semester and the second option after declaration of semester results.
  - i. During the semester: A student may file a grievance petition with the Chairman of his department during a semester if sufficient opportunity is not provided to him to review the assessment instruments as prescribed in the Examination regulations. The Chairman will form a 3 member departmental Committee headed by a senior faculty member to redress the grievance. It will be mandatory on the Committee to hear both sides (student and the teacher), and recommend corrective action within 5 days after filing of the grievance. The recommendations of the Committee will be binding on the teacher as well as the student.
  - ii. After Declaration of Semester Result: A student may submit a Grade Change Request (Form 3) to the Chairman's Office stating the specific reason for change in grade. Grade Change requests must be submitted no later than one week after the first grade was posted or within the first week of the following semester, whichever is later. The request will be routed to the concerned faculty member. Normally, the only person who can change a grade is the faculty member who gave the grade, however, in case that faculty member is no longer available or cannot be reached, the department chairman has the authority to evaluate the situation and change a grade, if required. When a grade is to be changed, the chairman shall forward the case to the Dean with justification for change. The result will be modified after approval of the Dean.

### 19.0 Students Registration and Hostel Accommodation

- a) Regular and casual students may register for subjects being offered during that semester within their maximum permissible credit hours registration limit.
- b) The student may add or drop subjects within first two weeks of Fall and Spring semesters and within first week of Summer semester.
- c) A student, who is fulfilling requirements of an "I" grade in a semester, is not required to register in the subject in which he has been awarded an "I" grade.
- d) Casual students will not be eligible for hostel accommodation. However, foreign casual students may be allowed to continue staying in hostels by the Senior Warden after approval of the Vice-Chancellor.

### 20.0 Deferment of Studies (Freezing)

- a) Students enrolled in the first semester cannot apply for deferment.
- b) There shall be no relaxation in the maximum degree duration period for students seeking deferment.
- c) A student may defer studies for at most two consecutive regular semesters, for medical or other circumstances beyond his control, with summer semester not being counted. In such cases, the student shall apply (Form 4) to the Chairman concerned, at least 15 days before the commencement of the semester, for approval of deferment by the concerned Dean. CAC, after approval, shall notify deferment for a specified period.

### 21.0 Attendance Requirements

- a) Students failing to maintain a minimum attendance of 75% in a subject during a semester shall be awarded a "WF" grade. Chairman in consultation with the respective Dean shall review cases of students seeking relaxation of up to 10% in attendance requirement. The relaxation shall be allowed after approval by the Dean. Any relaxation in excess of 10% shall be forwarded to the Vice-Chancellor through the respective Dean for final decision.
- b) Leaves availed by a student after approval of the Chairman will not be counted towards attendance.
- c) Students eligible for award of an "I" grade will be awarded such a grade only if their attendance is at least 50%.

# EXAMINATION REGULATIONS

## 1.0 Evaluation Process of Subjects

### 1.1 Evaluation of Type-A Subjects

- a) For mid-term and final examinations of Type-A subjects, the teacher of a subject shall set the question paper of that subject, supervise its examination, mark the answer books and prepare the award list. Any teaching resource provided to assist a teacher cannot be tasked to mark mid-term and final examinations answer books.
- b) Every teacher of Type-A subjects shall return the marked quizzes, assignments, etc., and mid-term examination scripts to the students for review, and in case of presentations, etc., communicate the earned score to the student within one week of the event. Mid-term scripts, however, would be recovered from the students and deposited with the Chairman concerned.
- c) At the end of scheduled teaching period of a semester but before commencement of the final examinations, the teacher shall prepare and display the Interim Award List. Composition, display, correction, and reporting requirements/procedures of Interim Award List shall be as prescribed in these rules.
- d) Teachers would mark the final examination scripts, and prepare and display complete Award List, excluding letter grades, within one week after the examination of the subject.
- e) The students may be shown the final examination marked scripts before submission of Comprehensive Award List to the Controller of Examinations, if they so desire.

### 1.2 Evaluation of Type-B Subjects

- a) Teachers of Type-B subjects shall keep all students informed of their performance at every stage in each category of task performed. Immediately after the end of each stage/assessment event, teachers shall prepare and communicate the earned score to the student in that stage/assessment event.
- b) At the end of semester and before the end of examination period, teachers shall prepare and display the Interim Award List. Content and other requirements regarding Interim Award List shall be as prescribed in these rules.
- c) After following the procedures and requirements regarding Interim Award List, the teachers shall prepare and display complete Award List, excluding letter grades, within one week after the end of scheduled teaching period.

### 1.3 Evaluation of Type-C Subjects

- a) Teachers of Type-C subjects shall keep all students informed of their performance at every stage in each category of task performed. Immediately after the end of each stage/assessment event, teachers shall prepare and display a list of earned score of each student in that assessment instrument.
- b) At the end of first of the two semesters of a Type-C subject and before the end of examination period, teachers would prepare and display an Intermediate Award List. This list would be similar to the Comprehensive Award List of Type-A and Type -B subjects except that letter grade assignment based upon this list will be limited to "IP" Grade.
- c) At the end of second of the two semesters of a Type-C subject and before the end of examination period, teachers shall prepare and display the Interim Award List. Content and other requirements regarding Interim Award List shall be as prescribed in these rules.
- d) Within one week of the conduct of Viva-voce/Jury examination, internal and external examiners shall prepare and display complete Award List excluding the letter grades.

### 1.4 Interim Award List

- a) Interim Award List would show the percentage as well as weighted score of each stage/assessment instrument of that subject including the mid-term examination in case of Type-A subjects.
- b) The Interim Award List will be communicated to all students via electronic means or/and displayed on the Notice Boards for at least two working days to permit students to point out any anomalies, errors, omissions, etc., in the list.
- c) The teachers shall give due consideration to any anomalies, errors, omissions, etc., in the list pointed out by any student, and may correct

the list.

- d) Any further processing of the list shall be carried out only after it has been displayed on the Notice Boards for the mandatory period and decisions regarding all matters pointed out by students have been taken.

### 1.5 Comprehensive Award List

The Comprehensive Award List shall show, for each student:

- a) The weighted combination of the Interim Award and Final Examination award in percentage format and Letter Grades corresponding to the comprehensive award.
- b) Sealed Comprehensive Award List will be sent to the Controller by the concerned teacher with a copy to the Chairman for record only.

### 1.6 Delay in Submission of Results

After passage of six working days from the date of scheduled final examination period, Controller of Examinations will submit a report to the Vice-Chancellor on the status of submitted results. The Vice-Chancellor will decide on the disposal of teachers failing to submit their results within the prescribed time.

## 2.0 Conduct of Examination of Type A Subjects Under Semester System

### 2.1 Question Papers

- a) All question papers are set by the concerned teacher.
- b) The paper setters, who also ensure their correctness, supervise the photocopying or duplicating of the papers.
- c) Question papers are kept in the safe custody of the teacher till the start of examination. He shall bear legal and moral responsibility for the safe custody and secrecy of the question papers.

### 2.2 Reference Material during Tests/Examinations

Prior to class tests, mid-term/final examination, the subject teacher announces such books, notes or other material that can be referred to by the students during the test or examinations. All other books, notes, papers, etc., are withdrawn from the examinees.

### 2.3 Examination Schedule

The Chairman of the department publishes the mid-term and final examination schedule at least two weeks before start of the examinations in accordance with the University's academic calendar.

### 2.4 Conduct of Mid-Term and Final Examinations

- a) The Chairman shall depute teachers or staff as Deputy Superintendent and Invigilators for the conduct of examinations. The number of invigilators will be estimated on the basis of one invigilator for every twenty-five students.
- b) The subject teacher shall be the Superintendent for the conduct of examination. The Superintendent shall ensure the following:
  - i. That all answer books used in the examination are signed or initialed. The teacher may require the students to answer on the question paper itself. No other answer book is to be used in this case.
  - ii. Answer books are issued to the invigilators 5 minutes before the commencement of the examination and retrieved at the end of the examination.
  - iii. The absentee report, if any, is prepared and forwarded to the Chairman's office at the end of each examination.

### 2.5 Teachers or Staff acting as invigilators are detailed by the respective Chairman. They ensure the following:

- a) That the students are identified through means such as University identification card or a valid photo ID.
- b) That the students are warned against the use of unfair means and have been advised to surrender mobile phones, notes, papers or other unauthorized material before the commencement of the examination.

- c) That the students are not allowed to talk with or copy from other students during the examination.
- d) That no student is allowed to join the examination thirty minutes after its commencement.
- e) That no student is allowed to submit the answer sheet and leave the examination room within thirty minutes of commencement of examination. Visits to toilets are carefully controlled.
- f) That the question papers and answer books of a student detected using unfair means or assisting another candidate, are taken away and the matter is reported to the respective Chairman. The superintendent records all available evidence to be used as proof later on.
- g) That the students write their registration numbers, name and class on the front cover of each additional answer sheet used. If more than one answer book is used, these are stapled together.

2.6 The subject teachers, being the Superintendent(s), shall:

- a) Supervise distribution of the question papers to the students according to the schedule published.
- b) Be available in the examination center during examination of their subject to clarify any query and to collect answer books after the examination. In case of multiple examination centers, they must remain available near the centers.
- c) Report any incidence of unfair means or disobedience or hooliganism detected in the examination center to the Controller of Examinations for processing under rules governing use of unfair means during examinations. The report must include collected evidence (if any), written and signed statement by the invigilator detecting the incidence and of the candidate(s) found involved.

### 3.0 Disposal of Answer Scripts

Answer sheets of mid-term and final examinations will be stored in the respective department for one semester after declaration of result of a semester. The sheets would be disposed off subsequently in a suitable manner as decided by the concerned Chairman.

### 4.0 Transfer of Credits of Subjects For Migrated Students

- a) Students from other HEC approved universities and programs accredited by PEC or PCATP, may apply for migration to this University in the same programs, in accordance with University's Migration Rules. Following conditions shall govern transfer of subjects (credits) to the University for subjects studied elsewhere. Subjects that do not satisfy these conditions shall not be transferred nor given any credit:
  - i. The subject must correspond to a subject offered by UET or be deemed equivalent in depth and intensity.
  - ii. The student must have earned at least "40%" marks in case of absolute grading system or a minimum of "C" grade or higher in a letter grading system similar to the one in this University. In case of any other grading system, the department shall decide with the above minimum limits in perspective. In case, both letter grades and marks are mentioned on the transcript, only letter grade will be considered for the purpose of transfer of semester credits.
- b) The accumulative credits accepted for transfer in any program should not exceed one-half (50%) of the total credits required to complete that particular program, in any case.
- c) The credits transferred are counted towards the degree requirements of the student. However, GPA of transferred credits shall not be counted towards the calculation of CGPA, and that only "Transferred" shall be written against those subject(s) in which transfer of credits was allowed. In addition, migrated students shall neither be eligible for a merit position nor degree with Honours.
- d) Migrating student may be deficient in subjects as compared to the class which he has joined. Such a student shall repeat these subjects. In case, he is studying a particular subject for the first time, it will not be classified as repeated subject for him.

### 5.0 Transfer of Credits of Subjects For Newly Admitted/Re-admitted Students

*(Newly admitted students in this clause implies those students who have been permanently separated from UET and have secured admission as fresh students after completing the UET admission process)*

"Subjects" and "grades of subjects", studied during the previous five years from the date of re-admission, in which they have earned a grade of "C" or above shall stand transferred and the students shall be placed in the semester recommended by the department. In addition, re-admitted or newly admitted students availing this facility shall neither be eligible for a merit position nor degree with Honours.

## 6.0 Transfer of Credits of Subjects For Double Degree Students

Credit hours of subjects, as recommended by the concerned department, in which they have earned a minimum of 40% marks or a minimum grade of "C" ( as the case may be) during their first degree program within the University shall stand transferred and they shall be placed in the semester recommended by the department. The credits transferred are counted towards the degree requirements of the student. However, GPA of transferred credits shall not be counted towards the calculation of CGPA, and that only "Transferred" shall be written against those subject(s) in which transfer of credits was allowed. In addition, double degree students shall neither be eligible for a merit position nor a degree with Honours.

## 7.0 Transfer of Credits of Subjects For Exchange Students

- a) Following conditions shall govern transfer of subjects (credits) to the University for subjects studied elsewhere as Exchange students under an HEC or University approved scheme. Subjects that do not satisfy these conditions shall not be transferred nor given any credit:
  - i. The subject must correspond to a subject offered by UET or be deemed equivalent in depth and intensity.
  - ii. The student must have earned at least "40%" marks in case of absolute grading system or a minimum of "C" grade or higher in a letter grading system similar to the one in this University. In case of any other grading system, the department shall decide with the above minimum limits in perspective. In case, both letter grades and marks are mentioned on the transcript, only letter grade will be considered for the purpose of transfer of semester credits.
- b) The credits transferred are counted towards the degree requirements of the student. However, GPA of transferred credits shall not be counted towards the calculation of CGPA, and that only "Transferred" shall be written against those subject(s) in which transfer of credits was allowed. In addition, such students shall neither be eligible for a merit position nor degree with Honours.

## 8.0 Exemption of Credits For Students Admitted on the Basis of B.Sc. Engineering Technology or Equivalent Degree

Subjects studied in the first two semesters of the engineering program in which the student has been admitted shall stand transferred. The credits transferred will be counted towards the degree requirements of the student. However, GPA of transferred credits shall not be counted towards the calculation of CGPA, and that only "Transferred" shall be written against those subject(s) in which transfer of credits has been allowed. In addition, such students shall be eligible for a merit position and degree with Honours if they so qualify.

## 9.0 Final Transcript Issued by Examination Branch

Examination Branch will issue a final transcript after the student completes all the degree requirements. The recording of result on final transcript will be according to the following:

- i. The transcript will be chronological showing all subjects registered in each semester and corresponding grades earned.
- ii. All "I" grades would be replaced by the grade earned or "F" grade if requirements have not been completed.
- iii. "IP" grade in a subject or sequel of subjects would be shown in the semester(s) in which it has been awarded. It will not be counted towards computation of GPA or CGPA in these semesters.
- iv. The semester grade awarded in a subject, which is a follow up of a subject or subjects in which "IP" has been awarded in previous semesters, would be counted towards computation of semester GPA and CGPA by considering the total credit hours assigned to the subject or a sequel of subjects.
- v. Elective subjects in which the student has earned "F" grades may not be counted towards computation of CGPA if alternate elective subjects have been studied in their place. This will not be automatic. The student must apply to the Controller Examination to avail this facility.

## 10.0 Results Declaration by Examination Branch

The student would be able to see his subject grades on the Examination portal as soon as those have been submitted by the teachers to the Controller Examinations. The status of these results would be "Provisional". When all results have been received by the Branch, official results would be declared within one week following due process of scrutiny and verification. The status of these results would change to "Confirmed" after declaration.



## MIGRATION REGULATIONS

1. Subject to the provision of Regulations, the Vice-Chancellor may admit a student to the University by migration from other Universities or Institutions according to these regulations.
2. The grounds for migration shall constitute changes in circumstances, which render it practically impossible for the student to continue his studies in his Parent University or Institution.
3. No migration shall be allowed into UET, its constituent campuses/ college and into its affiliated institutions from within its constituent campuses/ college and affiliated campuses/ colleges.
4. Admission by migration shall not be allowed ordinarily after the expiry of three weeks from the commencement of the session.
5. Only those students who possess academic record comparable with admission requirements of this University (for their particular Entry Session) shall be considered for admission by migration subject to availability of seats in the concerned department.
6. No student shall be admitted to First Year and Final Year classes by migration. In terms of semesters, migration is only permissible into the 3<sup>rd</sup>, 4<sup>th</sup> or 5<sup>th</sup> semester.
7. A migrated student is required to complete at least 50% curriculum, required for award of the degree, at UET in order to be eligible for UET's degree.
8. No student shall be admitted by migration from a University or Institution in Pakistan unless he produces a "No Objection Certificate" and Good Moral Character Certificate to the effect that the student has not been debarred from taking University examinations and suspended or not expelled or rusticated from the University or Institution from which he intends to migrate and that no disciplinary action is pending against him.
9. The applicant must have appeared in the Combined Entry Test conducted by UET Lahore of the session in which he intends to migrate. Or, he must have appeared in the Entry Test of parent institution.
10. The applicant must have passed Intermediate (Pre-Engineering) or its equivalent with at least 60% marks and 50% weighted aggregate based on 70% weight to Intermediate marks and 30% weight to Entry Test marks.
11. An application for admission by migration shall be accompanied by a detailed marks certificate showing the examinations passed by the applicant at his parent university. The applicant is required to be in good standing with a minimum CGPA of 2.5 out of 4.0.
12. No student admitted to any University or Institution against seats reserved for special categories shall be eligible for admission by migration.
13. No applicant shall be admitted by migration who possesses less than 1% of admission merit of this university as well as the sub-campuses of that year in which he was admitted in his parent institution.
14. No student shall be migrated to the University who carries any of his papers of his previous years.
15. No applicant shall be admitted by migration whose parent institution is within the same city. However, he may be considered for admission by migration to sub-campuses of this university.
16. Migration application will only be entertained on the prescribed application form, obtainable from UET website <https://www.uet.edu.pk> Migration form fee of Rs. 1,000/- will be paid at the time of submission of application form.
17. Migration fee shall be charged from the candidates allowed to migrate to the University from other Universities/Institutions under the rules at the following rates:-
  - I. Rs: 500,000/- (Rupees five hundred thousand only) in case of candidates of Universities/ Institutions abroad.
  - II. Rs: 400,000/- (Rupees four hundred thousand only) from applicants admitted elsewhere in Pakistan on Self Finance Basis.
  - III. Rs: 50,000/- (Rupees fifty thousand only) per semester to be studied in University of Engineering and Technology, Lahore and its campuses from the applicants not covered in the first two cases above.

**Note:** The genuine and deserving cases falling under category (III) mentioned above would be submitted to the Syndicate for waiver of the fee.

# CODE OF ETHICS



In the name of Allah, the Beneficent, the Merciful

Whereas Allah enjoineth upon his men faithfully to observe their trusts and their covenants;

- that professional expertise is a sacred trust entrusted to those whom Allah in his magnificent bounty has endowed with this skill and knowledge;
- that every member of the profession shall appreciate and shall have knowledge as to what constitutes this trust and covenant and that a set of dynamic principles derived from the Holy Quran shall guide this conduct in applying his knowledge for the benefit of society,

It shall be incumbent upon the members of the professional community to subscribe to individually and collectively and to uphold the honour and dignity of their profession:

1. "Allah commands you to render back your trusts to those to whom they are due, and that when you judge between people you judge with justice. Allah admonishes you with what is excellent." (4:58)
  - You shall be honest, faithful and just, and shall not act in any manner derogatory to the honour, integrity or dignity of their profession.
2. "And let not hatred of a people incite you not to act equitably. Be just that is nearer to observance of duty." (5:8)
  - You shall not injure, maliciously, directly or indirectly the reputation or employment of another Engineer, nor shall you fail to act equitably while performing professional duty.
3. "Give full measure and weight justly and defraud not men of their things and act not corruptly in the land making mischief." (11:85)
  - You shall use your knowledge and skill of engineering for human welfare and render professional service and advice which reflects your best professional Judgement.
4. "And swallow not up your property among your selves by false means, nor seek to gain access thereby to the judges, so that you may swallow up a part of the property of men wrongfully while you know." (2:188)
  - You shall not abuse you position or power, nor accept illegal gratifications of any sort.
5. "Fulfil the obligations." (5:1)
  - You shall faithfully observe and fulfil all your obligations.
6. "And speak straight words." (33:70)
  - You shall express your opinion on professional or other matters in a frank, open and straight forward manner.
7. "Avoid most of suspicion for surely suspicion in some cases is sin; and spy not nor let some of you backbite others." (69:12)
  - You shall not criticize another professional's work without his knowledge nor malign, or injure his professional reputation.
8. "Ye who believe. Let not some men Among you laugh at others. It may be that the (latter) are better than the (Former); Nor let some women Laugh at others: It may be that the (latter) are better than the (Former)" (49: 11)
  - You shall not ridicule fellow professional nor let one professional discipline deride other disciplines or professions.
9. "Nor defame nor be sarcastic to each other. Nor call each other By (Offensive nicknames)" (49:11)
  - You shall not directly or indirectly discredit other professionals nor assign (derogatory) epithets to their persons or work.
10. "And follow not that of which thou hast no knowledge. Surely the hearing and the sight and the heart, of all these it will be asked." (17:36)
  - Your professional advice shall be based on full knowledge of the facts and honest conviction, and you shall not write articles or advertise in self-laudatory language or in any manner derogatory to the dignity of the profession.
11. "O ye who believe: If a wicked person comes to you with any news, Ascertain the truth lest Ye harm people unwittingly." (49 :6)
  - You shall ascertain facts before accepting them and shall not encourage or cause others to carry tales. Credulity is no credit.
12. "And help one another in righteousness and piety and help not one another in sin and aggression and keep your duty to Allah." {5:2)
  - You shall help one another in upholding and doing what is right and shall not associate with those who transgress and those who indulge in unethical practices.
13. "And forget not kindness among yourselves." (2:237)
  - You shall be kind and considerate to others and shall not fail to be co-operative and accommodating.
14. "And whose affairs are decided by counsel among themselves." (62:38)
  - You shall decide matters of common professional interest by mutual consultation.
15. "And hold fast by the covenant of Allah all together and be not disunited." (3:102)
16. "And obey Allah ad His apostle; And fall into no disputes Lest ye lose heart and reputation." (8:40)
  - You shall strive individually and collectively to enhance the prestige of your profession by ordering your conduct in accordance with this Code of Ethics and shall not be disunited.

## CODE OF HONOUR

1. He must be loyal, faithful in his religious duties and respect the conviction of others in matters of religion.
2. He must be loyal to his country and refrain from doing anything which might lower its honour and prestige.
3. He must be truthful and honest in dealings with all people.
4. He must respect the elders and be polite to all, especially women, children, old people, the weak and helpless.
5. He must respect his teachers and others in authority in the University.
6. He must keep clean in all respects i.e. body, mind, speech, sport and habits.
7. He must help his fellow beings especially those in distress.
8. He must devote himself faithfully to his studies.
9. He must observe thrift and protect property.

### Prohibition of Smoking and Protection of Non-Smokers Health Ordinance 2002

The University requires adherence to the Prohibition of Smoking and Protection of Non-smokers Health Ordinance 2002. As such, smoking is strictly prohibited at all open and closed places within university premises and in university's transport.

### Acts of Indiscipline Punishable Under University Rules

#### 1. No Student shall:

- i. Smoke in the class room, laboratory, workshop, library, examination hall, convocation hall and during studio work or academic functions.
- ii. Consume alcoholic liquor or other intoxicating drugs within the University Campus or a hall of residence 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.
- iii. Organize or take part in any function within the University campus or a hall of residence, organize any club or society of students except in accordance with the prescribed rules and regulations.
- iv. Collect any money or receive donations or pecuniary assistance for or on behalf of the University or any University organization except with the written permission of the Vice Chancellor.
- v. Stage, incite or participate in any walkout, strike or other form of agitation against the University or its teachers and officers.

#### 2. A Student Who:

- a) Commits a breach of any of the rules of conduct specified in these regulations, or
- b) Disobeys the lawful order of a teacher or other person in authority in the University, or
- c) Habitually neglects his work or habitually absents himself from his classes without reasonable cause, or
- d) Willfully damages University property or the property of a fellow student or any teacher or employee of the University; or
- e) Does not pay the fees, fines or other dues levied under the University ordinances rules and regulations, or
- f) Does not comply with the rules relating to residence in the hostels or halls of residence or the rules relating to the wearing of uniform or academic dress, 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 within the University campus or otherwise which is prejudicial to the interest of the University.

**Shall be guilty of an act of indiscipline and shall be liable for each such act to one or more of the penalties under the General Discipline Rules.**

## AUTHORITIES TO CHECK INDISCIPLINE

**1. Every Member of the Teaching Staff shall:**

Have the powers and it shall be his duty to check disorderly or improper conduct or any breach of the rules by students occurring in any part of the precincts of the University. Should such misconduct occur in room when the student is under the charge of a demonstrator, the latter shall report the matter without delay to the Chairman of the Department.

**2. The Librarian shall:**

Be responsible for maintenance of order in the Library. In case of disorderly conduct or any breach of rules, he may require the student so offending to withdraw from the library for the remainder of the day and shall immediately report the offence to the Chairman of the Library Committee.

**3. The Senior Warden/Warden and the Resident Tutor shall:**

Be responsible for maintenance of order among the students in halls of residence or hostels.

**4. The Director of Physical Education shall:**

Be responsible for the maintenance of order among the students on or near the play grounds or while otherwise under his charge.

**5. Committee of Discipline:**

There is a Committee of Discipline to deal with serious cases of indiscipline. It consists of the following members as per University of Engineering and Technology, Punjab Act V of 1974:

- (a) Chairman to be nominated by the Vice-Chancellor
- (b) Two Professors to be nominated by the Academic Council
- (c) One member to be nominated by the Syndicate
- (d) Director Students Affairs (Member/Secretary)
- (e) Senior Tutor of the University; and
- (f) Senior Warden of the University Hostels
  - i. The term of office of members of the Committee excluding ex-officio members shall be two years
  - ii. The quorum for a meeting of the Committee of Discipline shall be four members

**The functions of this Committee are:**

- to propose Regulations to the Academic Council for the conduct of University Students, Maintenance of Discipline and breach of discipline; and
- to perform such other functions as may be prescribed by Regulations

## PENALTIES FOR ACTS OF INDISCIPLINE

The penalty or penalties imposed shall be appropriate and proportioned to the nature and gravity of the Act. The penalties which may be imposed and the authority or authorities competent to impose each kind of penalty are specified below:

	<b>PENALTY</b>	<b>AUTHORITY COMPETENT TO IMPOSE THE PENALTY</b>
a)	Exclusion for class room, Laboratory, Workshop or field work for the periods concerned, for not more than four such consecutive periods	Teacher Incharge
b)	Exclusion from the game or the Field for not more than one week	Incharge of the Game
c)	Exclusion from Instructional or Sports Tour or Survey Camp	Teacher Incharge or Head of Department / Chairman
d)	Exclusion from the Department for a period not exceeding two weeks	Head of Department / Chairman
e)	Exclusion from the Library for not more than two weeks	Chairman, Library Committee
f)	Exclusion from all classes or any Class in any Faculty for a period not exceeding two weeks	Dean of the Faculty
g)	Exclusion from the Hall of residence for a period not exceeding six months	Resident Tutor
h)	Exclusion from the Hall of residence for a period not exceeding one year	Senior Warden / Warden / Director Students Affairs
i)	Suspension or removal from a position of authority in a Hall of Residence	Resident Tutor / Warden / Senior Warden
j)	Suspension or removal from a position of authority in the Students Union	Director, Students Affairs
k)	Suspension or removal from a position of authority in the University Sports	President Sports committee
l)	Cancellation or Remission of fee or University Scholarship	Dean of the Faculty
m)	Fine upto Rs. 1,000/-	Lecturer / Resident Tutor
n)	Fine upto Rs. 2,000/-	Assistant Professor / Warden
o)	Fine upto Rs. 3,000/-	Associate Professor
p)	Fine upto Rs. 5,000/-	Chairman of Teaching Department/ Professor / Senior Warden / Director Students Affairs.
q)	Fine without limit	Dean of the Faculty
r)	Rustication from the University for a period not exceeding six months	Associate Professor
s)	Rustication from the University for a period not exceeding one year	Chairman of a Teaching Department / Professor / Committee of Discipline
t)	Rustication for any period	Dean of Faculty
u)	Expulsion from the University	Committee of Discipline

## GENERAL DISCIPLINE RULES RELATING TO STUDENTS

1. When a case against a student is referred to the Committee of Discipline, the Committee may, if it deem fit, suspend the student from University Rolls and / or direct him to vacate the Hall of Residence till it has taken a decision in the case.
2. The Vice Chancellor shall have the power to impose any of the penalties mentioned in "Penalties for Acts of Indiscipline" or to refer any case to the Committee of Discipline.
3. A Teacher or officer mentioned in "Penalties for Acts of Indiscipline" in whose presence or in relation to whom an act of indiscipline is committed or who obtains knowledge of such act on a report or otherwise, may deal with the case himself or if in his view:
  - a) the case is one which can be more appropriately dealt with by another authority; or
  - b) a penalty or penalties severer than those which he is competent to impose are called for in the case; he shall follow the procedure specified below:
    - i. If he is not the Dean of the faculty he shall refer the case to the Dean who may deal with it himself or refer it to the appropriate authority.
    - ii. If he is the Dean of the Faculty, he shall refer it to the appropriate authority or the Committee of Discipline.
4. No Student shall be rusticated or expelled from the University, unless he has been allowed reasonable chance of replying to the accusation against him.
5. When in the opinion of the Committee of Discipline, the penalty of rustication or expulsion is not called for in a case referred to it, it may impose any other penalties mentioned in "Penalties for Acts of Indiscipline".
6. When a Teacher or an Officer has imposed penalty/penalties on a student under "Penalties for Acts of Indiscipline", the later shall not be liable to a higher or an additional penalty unless the offending student has been given a reasonable opportunity of showing cause against the proposed action.
7. An appeal against the imposition of penalty may be made within a week's time to the teacher who imposed the penalty. In case the student is not satisfied with his decision/revision he may appeal to the Chairman, Discipline Committee who shall place it before the Discipline Committee for its consideration and decision within a maximum of six weeks to dispose of the case. A final appeal against the imposition of penalty may then be made to the Committee as provided in Rule 11(i) of the General Discipline rules relating to students.
8. An appeal against a decision imposing a penalty mentioned in clauses (r) and (s) of "Penalties for Acts of Indiscipline" shall lie with a Committee consisting of the Vice Chancellor and the Deans of Faculties. No appeal shall lie against a decision of an authority imposing a penalty other than that mentioned in sub-rule (i) of this rule except on the ground that such authority has imposed a penalty which it was not competent to impose.
9. An appeal on the ground that an authority has imposed a penalty which it was not competent to impose shall lie to the Vice Chancellor. No appeal by a student shall be entertained, unless it is presented within fifteen days from the date on which the decision is communicated to him provided that the Vice Chancellor may for valid reason extent this period.
10. The Vice Chancellor or any teacher or officer to whom the Vice-Chancellor may delegate his powers may direct a student to pay compensation for any loss of or damage to property belonging to the University or fellow student or to an employee of the University, caused by a willful act or gross negligence of the student and if the student does not pay such compensation within a reasonable time, the Vice-Chancellor may expel him from the University.
11. The Syndicate may for special reason re-admit a student rusticated or expelled from the university under these rules, if otherwise eligible.

## UG FEE REGULATIONS

### 1. Periods of fees and Other Charges

- a) The fees and other charges are categorized as:
  - i. One-time payments at the time of admission
  - ii. Semester recurring fees
  - iii. Summer semester dues for students registering during summer semester
- b) During each year of a student's stay at the University, all recurring fees are charged in two installments payable at the beginning of Fall and Spring semesters.
- c) Registration fee at the rate of: (i) Rs 2,000/- per credit hour for subsidized category, and (ii) Rs 7,000/- per credit hour for partially subsidized category will be charged for subjects registered during the summer semester.
- d) A total of 8 semesters or 10 semesters recurring fees are admissible to students graduating, respectively, from a four years degree program or a five years degree program.
- e) Students registering in subjects after completing 8 semesters or 10 semesters, respectively, from a four years degree program or a five years degree program will not be required to pay the admissible semester dues but will, however, pay Rs 2,000/- per credit hour for the subjects registered.
- f) Re-admitted students are required to pay the admissible dues for two extra semesters even if they complete their degree requirements with their original entry session or a semester later. They will pay Rs 2,000/- per credit hour for the subjects registered beyond the two extra semesters for which admissible dues have been paid by them.
- g) An admission retention fee of Rs 5,000/- per semester will be charged from students who have deferred their studies or who have not registered in any subject in a semester. This fee will be over and above the total fee period admissible to such students.
- h) The hostel charges are payable for the period of allotment, a part of semester being counted as full semester. Rent and electricity charges for fans are payable on per semester basis. Electricity charges for room heaters are payable only during the winter season for four months.

### 2. Revision of Tuition Fees Rates

- a) The fee and other charges schedule (for four years) published in the prospectus will be applicable to the entry session of that year only.
- b) To account for inflation, 12% increase in tuition fee and other charges may be incorporated each year.

### 3. Payment of Dues

- a) Fee challan form would be available on-line in the student's login on Learning Management System (LMS) before commencement of the semester.
- b) The challan form shall show the amount payable by the due date and the amount payable after the due date.
- c) Students are encouraged to pay their dues through electronic means as facilitated by HBL.
- d) Students will not be permitted to register in a semester if they do not deposit the semester dues in advance. Failing to pay the dues until the end of 15 days add/ drop period, after commencement of the semester, will result in missing the semester altogether.
- e) Admission of student defaulting in payment of their dues until the end of add/ drop period may be cancelled. Such students will have to get readmission after permission by the VC and on payment of all outstanding dues and the readmission fee.
- f) Students whose names do not appear in LMS attendance roll will not be allowed to sit in the classes by the departments.
- g) Cases of students who are externally sponsored will be dealt separately.

### 4. Refund of Securities

- a) The University and library securities are refunded, after deduction of outstanding dues of the University or the library, when a student leaves the University after completion of his degree.
- b) The hostel and mess securities, after deduction of outstanding dues of the hostel, are refunded when a student leaves the hostel.

## 5. Refund on Admission Cancellation

### 5.1 Admission Cancellation by Freshly Admitted Students

All dues paid by the student are refundable excluding the Admission Fee as per the following schedule:

- a) Full (100%) fee refund if admission cancelled up to 8<sup>th</sup> day.
- b) Half (50%) fee refund if admission cancelled from 9<sup>th</sup> to 16<sup>th</sup> day.
- c) No fee refund if admission cancelled from 17<sup>th</sup> day onward.

The count of days mentioned in the schedule for determining refund amount, would start from the date falling last from either the date of:

- (i) convening of classes; or
- (ii) initiation of registration by the University; or
- (iii) the date of payment of admission dues by the student in the bank.

### 5.2 Admission Cancellation by Other Students

- The University security, library security, hostel security and mess securities are refunded when a student cancels his admission before completion of his degree.
- The one-time deposit of US\$ 7,000/- made by foreign students admitted under HEC SF scheme shall be refunded after deduction of months availed at the university. The one-time deposit will be divided by 48 to determine monthly refund rate. For counting availed months, a portion of a month shall be counted as one full month.

5.3 All other dues and fees deposited shall not be refunded including migration fee charged from migrated students.



## FINANCIAL ASSISTANCE AND SCHOLARSHIP POLICY

### 1. Categories which are not eligible for Financial Assistance

“A2”, “S”, and “SI” categories are not eligible to apply for financial assistance from the University.

### 2. Financial Assistance in the form of Work & Study Model

Following categories are eligible to apply to the Office of FA&CS for financial assistance from the University in the form of up to 50% tuition waiver through a Work and Study arrangement.

- “A1”, “I”, “N”, “L”, “Q”, “P”, “R”, “B”, “D”, “E”, “J1”, “J2” and “O”.

Decision of award will be made by the Director FA&CS on the bases of the credentials provided by the applicant. Awardees will be required to serve the University for 10 hours per week during the semesters for which the award has been given. This service may be in the form of office work, horticultural work, cleanliness work, environmental work, etc. The awardees will be attached with the offices of the Resident Officer (RO), Project Director (PD), Security Officer (SO), Director Sports, Senior Warden, or another office as deemed appropriate by Director FA&CS.

### 3. Scholarships for PTAP and Cultural Exchange Scholars

International and Cultural Exchange students admitted under “H1” and “H4” category without financial support will be charged tuition fee of “A1” category students. The Vice-Chancellor is authorized to give a scholarship in the form of a waiver of tuition fee up to 75% to selected Pakistan Technical Assistance Program (PTAP) and Cultural Exchange scholars on the recommendation of FA&CS or In-charge Students' Section.

### 4. Scholarships for Disabled Students and Baluchistan Domiciled Students

All charges categorized as fees chargeable by the University are waived for Baluchistan domiciled students and disabled students admitted under “T” category or “A1” category if they apply for the same to the office of FA&CS or In-charge Students' Section.

### 5. Orphan Students Admitted Under “A1” Category and FATA Domiciled Students

- a) Needy orphan students admitted under “A1” category may apply to Director FA&CS for full tuition waiver. Decision to award tuition waiver or otherwise will be based on assessment of whether the student is needy or not.
- b) FATA domiciled students will be awarded full tuition waiver at the time of admission, if they claim to be needy with required proof as acceptable to the Office of FA&CS.

### 6. Merit Scholarships Policy

- a) Merit scholarships are awarded in the form of full tuition waiver to students earning top positions for one semester following the semester in which position has been earned as per the approved criteria. “A2”, “S” and “SI” categories are also eligible for the award of merit scholarship, if they so qualify.
- b) Students who have been awarded need based tuition waiver by UET are eligible for merit scholarships. However, need based tuition waiver will be discontinued for the semester in which merit scholarship is admissible.
- c) Students who have been awarded scholarships by external donors/agencies are not eligible for University merit scholarship.

### 7. Award of Multiple Financial Assistance/ Scholarships

- Students are only eligible for the award of one scholarship at a time.
- Orphan students admitted under “A1” category and students from Baluchistan and FATA are granted full tuition waiver by the University. However, they are permitted to avail another need-based scholarship awarded by an external agency. If the external scholarship includes tuition fee as its component, then full tuition fee will be recovered from the scholarship amount awarded to these students. However, if such an amount is not included, then tuition waiver will be maintained.
- Cases regarding tuition fee of orphan students availing HEC scholarship will be decided by the HEC Focal Person Office/HEC Need Based Scholarship Committee.
- Board of Intermediate and Secondary Education merit scholarships will be given to the awardees even if they are in receipt of a scholarship from the University.

## FEE STRUCTURE

		SUBSIDIZED	PARTIALLY SUBSIDIZED
	Eligible Categories	A1, B, D E, I, J1, L, P, Q, R	A2, J2, N, O, SF, S & SI
<b>I</b>	<b>NON-RECURRING FEES (Payable at the time of admission)</b>		
1.	Admission Fee payable in First Year/ Readmission Fee	2,000	10,000
2.	University Registration Fee	1,000	4,000
3.	University Security (Refundable)	1,000	1,000
4.	Library Security (Refundable)	1,000	1,000
5.	Verification Fee	2,000	2,000
6.	Email Registration Fee	200	200
7.	Survey Camp Charges (Civil, Transportation, Geological, Mining & CRP only)	5,600	5,600
8.	University Student Identity Card	500	500
<b>II</b>	<b>SEMESTER RECURRING FEES</b>		
1.	Tutorial Fee	100	100
2.	Inter-University Tournament Fee	100	100
3.	Magazine Fee	150	150
4.	Medical Fee	500	500
5.	Tuition Fee	40,320	134,400
6.	Laboratory Fee	1,888	9,441
7.	Examination Fee	1,120	1,120
8.	Sports Fee	600	600
9.	Tennis/ Squash Club Fees for Student Members only	2,000	2,000
10.	Facilities Charges	3,000 for day scholars/ 1,500 for hostel residents	3,000 for day scholars / 1,500 for hostel residents
11.	Internet Charges	1,800	1,800
12.	Summer Semester Subject Registration Fee	2,000 per credit hour	7,000 per credit hour

### Collection of Advance Tax by Educational Institutes

As per Finance Act 2020, UET Lahore is bound to withhold advance income tax from non-filers of income tax on amount of fee (inclusive of tuition and all charges) exceeding Rs 200,000/- per annum at the rate of 5% of the total amount. This tax is charged in the dues challan of Spring semester each year. Students whose guardians are residing abroad or are included in Active Tax Payers list may submit documentary evidence to get waiver from this advance tax.

## UNDERGRADUATE FEE SCHEDULE FOR SESSION 2021

Applicable from 1<sup>st</sup> Semester (Fall 2021) until 8<sup>th</sup>/10<sup>th</sup> Semester (Spring 2025/26)

	SUBSIDIZED (Rs)	PARTIALLY SUBSIDIZED (Rs)
First Semester (Fall)	57,278.00	169,911.00
Second Semester (Spring)	49,578.00	151,211.00
Third Semester (Fall)	49,578.00	151,211.00
Fourth Semester (Spring)	49,578.00	151,211.00
Fifth Semester (Fall)	49,578.00	151,211.00
Sixth Semester (Spring)	49,578.00	151,211.00
Seventh Semester (Fall)	49,578.00	151,211.00
Eighth Semester (Spring)	51,578.00	153,211.00
<b>Total (8 semesters program)</b>	<b>406,324.00</b>	<b>1,230,388.00</b>
Ninth Semester (Fall)	49,578.00	151,211.00
Tenth Semester (Spring) <b>Total</b>	49,578.00	151,211.00
<b>(10 semesters program)</b>	<b>505,480.00</b>	<b>1,532,810.00</b>

### Hostel Fees Per Semester

Rs. 2,000/- charged as Refundable Hostel Security at the time of allotment

Cubicle (Fall/Spring)	5,788 / 6,460	8,028 / 8,700
Dormitory (Fall/Spring)	4,369 / 4,817	5,489 / 5,937
Summer Semester (July & August)	6,000	6,000

## Minimum Merit (as per previous formula) Summary 2020

Discipline	Campus	Category	Minimum Aggregate	Discipline	Campus	Category	Minimum Aggregate	Discipline	Campus	Category	Minimum Aggregate
Architectural Engineering	LHR	A1	76.1979021	Mechatronics Engineering	LHR	A1	76.41608392	Electrical Engineering	FSD	S	53.36888889
Architectural Engineering	LHR	A2	68.47534965	Mechatronics Engineering	LHR	A2	68.29895105	Environmental Science	FSD	A1	50.91853147
Architectural Engineering	LHR	S	55.11195652	Mechatronics Engineering	LHR	S	53.61311189	Environmental Science	FSD	A1-M	63.00090009
Architecture	LHR	A1	74.68216783	Metallurgical and Materials Engineering	LHR	A1	73.13968531	Environmental Science	FSD	A2	51.47318841
Architecture	LHR	A2	63.68783422	Metallurgical and Materials Engineering	LHR	A2	65.37674825	Environmental Science	FSD	A2-M	66.08163816
Architecture	LHR	S	52.07660427	Metallurgical and Materials Engineering	LHR	N	63.06678322	Mechatronics Engineering	FSD	A1	67.55006993
Architecture	LHR	T	57.96818182	Metallurgical and Materials Engineering	LHR	S	55.65909091	Mechatronics Engineering	FSD	A2	57.63374126
Automotive Engineering	LHR	A1	73.26503497	Mining Engineering	LHR	A1	66.74143357	Mechatronics Engineering	FSD	S	53.61311189
Automotive Engineering	LHR	A2	63.50839161	Mining Engineering	LHR	A2	61.75454545	Textile Engineering	FSD	A1	65.41468531
Bachelor of Business Administration	LHR	A3	50.40944056	Mining Engineering	LHR	N	55.77167831	Textile Engineering	FSD	A2	55.13898601
Bachelor of Business Information Technology	LHR	A3	50.76468531	Petroleum & Gas Engineering	LHR	A1	74.07097902	Bio Medical Engineering	NWL	A1	64.96416084
Chemical Engineering	LHR	A1	76.02674825	Petroleum & Gas Engineering	LHR	A2	66.63618881	Bio Medical Engineering	NWL	A1-M	77.2749775
Chemical Engineering	LHR	A2	67.38199301	Petroleum & Gas Engineering	LHR	N	63.14465812	Civil Engineering	NWL	A1	70.35262238
Chemical Engineering	LHR	N	67.84300698	Petroleum & Gas Engineering	LHR	S	53.13496503	Civil Engineering	NWL	P	72
Chemical Engineering	LHR	S	54.39055944	Physics	LHR	A1	66.65157343	Civil Engineering	NWL	S	51.58461538
Chemistry	LHR	A1	66.92482517	Physics	LHR	A1-M	63.90553555	Computer Science	NWL	A1	65.47902098
Chemistry	LHR	A1-M	72.30357785	Physics	LHR	A2	61.52252545	Electrical Engineering	NWL	A1	67.0156177
Chemistry	LHR	A2	56.01713287	Physics	LHR	A2-M	70.46059856	Electrical Engineering	NWL	S	53.83968531
Chemistry	LHR	A2-M	68.94430693	Physics	LHR	S	65.47723881	Mechanical Engineering	NWL	A1	68.45751748
City and Regional Planning	LHR	A1	72.41751337	Polymer Engineering	LHR	A1	69.65716783	Mechanical Engineering	NWL	S	55.01625874
City and Regional Planning	LHR	A2	62.26270053	Polymer Engineering	LHR	A2	57.87747253	Computer Science	RECT	A1	66.14737762
City and Regional Planning	LHR	N	63.02115385	Polymer Engineering	LHR	S	57.1951049	Computer Science	RECT	A2	55.66016043
City and Regional Planning	LHR	T	57.67152406	Product & Industrial Design	LHR	A1	69.90387701	Electrical Engineering	RECT	A1	66.99020979
Civil Engineering	LHR	A1	77.1958042	Product & Industrial Design	LHR	A2	57.72713904	Electrical Engineering	RECT	A2	61.89475524
Civil Engineering	LHR	A2	70.23374126	Product & Industrial Design	LHR	S	58.43618881	Industrial and Manufacturing Engineering	RECT	A1	65.12797203
Civil Engineering	LHR	N	72.07744755	Transportation Engineering	LHR	A1	70.3297619	Industrial and Manufacturing Engineering	RECT	A2	57.2270979
Civil Engineering	LHR	P	61.116	Transportation Engineering	LHR	A2	60.46276224	Mechanical Engineering	RECT	A1	69.22465035
Civil Engineering	LHR	S	50.52826087	Transportation Engineering	LHR	S	59.86870629	Mechanical Engineering	RECT	A2	64.53272222
Computer Engineering	LHR	A1	77.46905594	Bio Medical Engineering	KSK	A1	72.94982517	Mechanical Engineering	RECT	S	58.76666667
Computer Engineering	LHR	A2	70.91523402	Bio Medical Engineering	KSK	A1-M	82.63508101				
Computer Science	LHR	A1	74.6493007	Bio Medical Engineering	KSK	A2	55.08776224				
Computer Science	LHR	A2	67.71388889	Bio Medical Engineering	KSK	A2-M	76.34410441				
Electrical Engineering	LHR	A1	77.93076923	Chemical Engineering	KSK	A1	70.37395104				
Electrical Engineering	LHR	A2	70.08888889	Chemical Engineering	KSK	A2	57.42377622				
Electrical Engineering	LHR	L	80.27744755	Chemical Engineering	KSK	S	53.55856643				
Electrical Engineering	LHR	N	73.32472527	Computer Science	KSK	A1	69.61276224				
Electrical Engineering	LHR	O	68.39444444	Computer Science	KSK	A2	61.95576923				
Electrical Engineering	LHR	P	63.319	Electrical Engineering	KSK	A1	72.73150315				
Electrical Engineering	LHR	S	53.4493007	Electrical Engineering	KSK	A2	64.56791045				
Environmental Engineering	LHR	A1	72.09912587	Electrical Engineering	KSK	P	62.964				
Environmental Engineering	LHR	A2	64.3222028	Electrical Engineering	KSK	S	56.875				
Environmental Engineering	LHR	S	55.68531469	Environmental Science	KSK	A1	61.35223881				
Geological Engineering	LHR	A1	67.93723776	Environmental Science	KSK	A1-M	72.49941494				
Geological Engineering	LHR	A2	58.46118881	Environmental Science	KSK	A2	51.41958042				
Geological Engineering	LHR	S	59.35555556	Environmental Science	KSK	A2-M	73.84934743				
Industrial and Manufacturing Engineering	LHR	A1	73.38251748	Mechanical Engineering	KSK	A1	73.26503497				
Industrial and Manufacturing Engineering	LHR	A2	64.62937063	Mechanical Engineering	KSK	A2	66.07222222				
Industrial and Manufacturing Engineering	LHR	S	61.96944444	Mechanical Engineering	KSK	S	51.503663				
Mathematics	LHR	A1	67.74475524	Software Engineering	KSK	A1	73.00262238				
Mathematics	LHR	A2	62.3513986	Software Engineering	KSK	A2	67.14143357				
Mathematics	LHR	S	51.39982517	Software Engineering	KSK	S	61.82085561				
Mechanical Engineering	LHR	A1	79.46416084	Chemical Engineering	FSD	A1	68.99388112				
Mechanical Engineering	LHR	A2	71.77884615	Chemical Engineering	FSD	A2	56.51486014				
Mechanical Engineering	LHR	N	69.70210623	Chemical Engineering	FSD	S	57.89611111				
Mechanical Engineering	LHR	O	70.11944444	Electrical Engineering	FSD	A1	69.80932836				
Mechanical Engineering	LHR	P	60.732	Electrical Engineering	FSD	A2	59.58898601				
Mechanical Engineering	LHR	S	54.21765734	Electrical Engineering	FSD	P	57.461				

LHR: Main Campus Lahore

KSK: New Campus (Kala Shah Kaku)

FSD: Faisalabad Campus

NWL: Narowal Campus

RCET: Rachna College of Engineering &amp; Technology, Gujranwala

## Seat Allocation Chart for Faculty of Electrical Engineering

Category Description	Category	Electrical Lahore	Electrical Faisalabad	Electrical KSK	Electrical RCET	Electrical Narawal	Computer Engg Lahore	CS Lahore	CS KSK	CS RCET	CS Narawal	SE KSK	BME KSK	BME NWI	Total
Open Merit (Punjab) - Subsidized	A1	90	60	50	40	44	25	120	78	40	49	43	15	25	679
Open Merit (Punjab) - Subsidized	A1-M												15	24	39
Open Merit (Punjab) Partially subsidized	A2	39	19	15	4		10	30	20	10		4	9		160
Open Merit (Punjab) Partially subsidized	A2-M												9		9
DAE - Subsidized	I	4	2	1	1	1	1	3	2		1	1	1	1	19
Children of Engrs, Architects, Planners	N	2													2
Non-Muslims (Punjab)	NM	2	1	1	1	1	1	2	2	1	1	1	1	1	16
Backward Areas of Punjab	L	1													1
Children of Univ. Employees	M	Upper Limit of 10 seats in any major discipline- A total of 41 seats in all.													
Children of University Alumni	O	1													1
B.Sc Engg Tech or equivalent	P	4	2	2	1	1							1	1	12
Bhakkar and Layyah Districts	R	1													1
Children of Overseas Pakistanis	S	10	14	17	2	5						2			50
Children of Overseas Pakistanis (DAE)	SI			1											1
Disabled (Punjab Domiciled)	T														
<b>Sub-total (i)</b>		<b>154</b>	<b>98</b>	<b>87</b>	<b>49</b>	<b>52</b>	<b>37</b>	<b>155</b>	<b>102</b>	<b>51</b>	<b>51</b>	<b>51</b>	<b>51</b>	<b>52</b>	<b>990</b>

## Reserved Seat Allocation Chart for Faculty of Electrical Engineering

Category/Description	Category	Electrical Lahore	Electrical Faisalabad	Electrical KSK	Electrical RCET	Electrical Narowal	Computer Engg Lahore	CS Lahore	CS KSK	CS RCET	CS Narowal	SE KSK	BME KSK	BME NMI	Total	
Sindh	B	1													1	
Baluchistan	C	1	1	1	1					1					5	
KPK	D	1				1									2	
Azad Kashmir	E	5	1	1	1										8	
Azad Kashmir (Lepa Valley)	E	Open - Choice open to the candidate – A total of one seat in all.														
Gilgit Baltistan	E	1		1											2	
Foreign (under Economics Affairs Division)	H1	20													20	
Afghan Nationals	H2	Open – Upper limit of 05 seats in major disciplines in Lahore Campus – A total of 44 seats in all.														
OIC Nominees	H2															
Indian Occupied Kashmir	H3	Open – Upper limit of 03 seats in major disciplines – A total of 15 seats in all.														
Cultural Exchange (Yemen)	H4	2						4							6	
Army	J	3					2								5	
Air Force	J	1					1								2	
Navy	J						1								1	
FATA	K	4													4	
DG Khan (Tribal)	Q	1													1	
Rajanpur (Tribal)	Q	1													1	
Baluchistan/ FATA (HEC Scholars)	U	Open – Upper limit of 04 seats in major disciplines – A total of 20 seats in all.														
HEC Self Finance	SF	10	Open - Upper Limit of 05 seats in each discipline – A total of 50 seats in all.													10
Sub-total (ii)		51	2	3	2	1	4	4	-	1	-	-	-	-	68	
Sub-total (i)		154	98	87	49	52	37	155	102	51	51	51	51	52	990	
Grand Total		205	100	90	51	53	41	159	102	52	51	51	51	52	1058	

## Seat Allocation Chart for Faculty of Mechanical Engineering

Category Description	Category	Mechanical Lahore	Mechanical KSK	Mechanical RCET	Mechanical Narawal	Mechatronics Lahore	Mechatronics Faisalabad	Automotive Engineering	IME Lahore	IME RCET	Textile Faisalabad	Total
Open Merit (Punjab) - Subsidized	A1	90	60	40	42	60	70	30	34	45	30	501
Open Merit (Punjab) Partially subsidized	A2	39	14	2		15	16	19	9	3	17	134
DAE - Subsidized	I	4	1	1	1	2	1	1	1	1	1	14
Children of Engrs, Architects, Planners	N	2										2
Non-Muslims (Punjab)	NM	2	1	1	1	1	1	1	1	1	1	11
Backward Areas of Punjab	L	1										1
Children of Univ. Employees	M	Upper Limit of 10 seats in any major discipline- A total of 41 seats in all.										
Children of University Alumni	O	1										1
B.Sc Engg Tech or equivalent	P	4	2	1	1				1	1	1	11
Bhakkar and Layyah Districts	R											
Children of Overseas Pakistanis	S	15	13	2	6	2	10		3			51
Children of Overseas Pakistanis (DAE)	SI		1				1					2
Disabled (Punjab Domiciled)	T											
Sub-total (i)		158	92	47	51	80	99	51	49	51	50	728

## Reserved Seat Allocation Chart for Faculty of Mechanical Engineering

Category Description	Category	Mechanical Lahore	Mechanical KSK	Mechanical RCET	Mechanical Narawal	Mechatronics Lahore	Mechatronics Faisalabad	Automotive Engineering	IME Lahore	IME RCET	Textile Faisalabad	Total	
Sindh	B	1										1	
Baluchistan	C	1		1						1		3	
KPK	D	1										1	
Azad Kashmir	E	5	1	1								7	
Azad Kashmir (Lepa Valley)	E	Open - Choice open to the candidate – A total of one seat in all.											
Gilgit Baltistan	E	1		1		1	1					4	
Foreign (under Economics Affairs Division)	H1	12										12	
Afghan Nationals	H2	Open – Upper limit of 05 seats in major disciplines in Lahore Campus – A total of 44 seats in all.											
OIC Nominees	H2	1										1	
Indian Occupied Kashmir	H3	Open – Upper limit of 03 seats in major disciplines – A total of 15 seats in all.											
Cultural Exchange (Yemen)	H4	2										2	
Army	J	3										3	
Air Force	J												
Navy	J	1										1	
FATA	K	4		2			2		2		2	12	
DG Khan (Tribal Area)	Q		1									1	
Rajanpur (Tribal Area)	Q			1								1	
Baluchistan/ FATA (HEC Scholars)	U	Open – Upper limit of 04 seats in major disciplines – A total of 20 seats in all.											
HEC Self Finance	SF	10	Open - Upper Limit of 05 seats in each discipline – A total of 50 seats in all.										10
Sub-total (ii)		42	2	6		1	3	0	2	1	2	59	
Sub-total (i)		158	92	47	51	80	99	51	49	51	50	728	
Grand Total		200	94	53	51	81	102	51	51	52	52	787	



## Seat Allocation Chart for Faculty of Civil Engineering, Faculty of Chemical, Metallurgical and Material Engineering and Faculty of Earth Sciences and Engineering

Category Description	Category	Civil Lahore	Civil Narowal	Architectural Engg Lahore	Transportation Engg Lahore	Environmental Engg Lahore	Chemical Lahore	Chemical Faisalabad	Chemical KSK	Polymer Engg Lahore	Metallurgical and Materials Engg Lahore	Petroleum Engg Lahore	Mining Engg Lahore	Geological Engineering	Total
Open Merit - Subsidized	A1	90	30	28	25	38	50	30	60	40	30	20	30	35	506
Open Merit – Partially subsidized	A2	33		11	11	10	14	11	29	6	8	9	5	7	154
DAE - Subsidized	I	4		1	1		2	1	1	1	1		1		13
Children of Engrs, Architects, Planners	N	2					1				1	1	1		6
Non-Muslims (Punjab)	NM	2	1	1	1	1	1	1	1	1	1	1	1		13
Backward Areas of Punjab	L														
Children of Univ. Employees	M	Upper Limit of 10 seats in any major discipline- A total of 41 seats in all.													
Children of University Alumni	O														
B.Sc. Engg Tech or equivalent	P	4	1				2	1	1						9
Bhakkar and Layyah Districts	R														
Children of Overseas Pakistanis	S	15	9	5	2	2	10	4	4	2	1	2		1	57
Children of Overseas Pakistanis (DAE)	SI		1									1			2
Disabled (Punjab Domiciled)	T														
Sub-total (i)		150	42	46	40	51	80	48	96	50	42	34	38	43	760

## Reserved Seat Allocation Chart for Faculty Civil Engineering, Faculty of Chemical, Metallurgical and Material Engineering and Faculty of Earth Sciences and Engineering

Category Description	Category	Civil Lahore	Civil Narowal	Architectural Engg Lahore	Transportation Engg Lahore	Environmental Engg Lahore	Chemical Lahore	Chemical Faisalabad	Chemical KSK	Polymer Engg Lahore	Metallurgical and Materials Engg Lahore	Petroleum Engg Lahore	Mining Engg Lahore	Geological Engg Lahore	Total	
Sindh	B	1					2					2	1	1	7	
Baluchistan	C	3		1	1		1	1			1	3	2	1	14	
KPK	D	1	1	1			2				2	1	1	2	11	
Azad Kashmir	E	5		1			2	2					2	2	14	
Azad Kashmir (Lepa Valley)	E	Open - Choice open to the candidate – A total of one seat in all.														
Gilgit Baltistan	E		1							1			1		3	
Foreign (under Economics Affairs Division)	H1	21		3			4				3	3			34	
Afghan Nationals	H2	Open – Upper limit of 05 seats in major disciplines in Lahore Campus – A total of 44 seats in all.														
OIC Nominees	H2	1											1		2	
Indian Occupied Kashmir	H3	Open – Upper limit of 03 seats in major disciplines – A total of 15 seats in all.														
Cultural Exchange (Yemen)	H4	1										1			2	
Army	J	2													2	
Air Force	J															
Navy	J															
FATA	K	8					2		2					2	14	
DG Khan (Tribal)	Q	1										1			2	
Rajanpur (Tribal)	Q							1							1	
Baluchistan/ FATA (HEC Scholars)	U	Open – Upper limit of 04 seats in major disciplines – A total of 20 seats in all.														
HEC Self Finance	SF	10	Open - Upper Limit of 05 seats in each discipline – A total of 50 seats in all.													10
Sub-total (ii)		54	2	6	1		13	4	2	1	6	11	8	8	115	
Sub-total (i)		150	42	46	40	51	80	48	96	50	42	34	38	43	760	
Grand Total		204	44	52	41	51	93	52	98	51	48	45	46	51	875	

## Seat Allocation Chart for Faculty of Architecture and Planning & Faculty of Natural Sciences, Humanities and Islamic Studies

Category Description	Category	Architecture Lahore	Product & Industrial Design Lahore	City and Regional Planning Lahore	Chemistry	Mathematics	Physics	BBA	BBIT	ESK	ESF	Total
Open Merit (Punjab) - Subsidized	A1	25	35	25	40	40	40	150	100	22	22	499
Open Merit (Punjab) - Subsidized A1-M	A1-M									21	21	42
Open Merit (Punjab) Partially subsidized	A2	14	13	8	4	4	4			2	2	51
Open Merit (Punjab) Partially subsidized	A2-M									2	2	4
DAE - Subsidized	I	1	2		1	1	1			1	1	8
Children of Engrs, Architects, Planners	N	1		1								2
Non-Muslims (Punjab)	NM	1	1	1	1	1	1	3	2	1	1	13
Backward Areas of Punjab	L											
Children of Univ. Employees	M	Upper Limit of 10 seats in any major discipline- A total of 41 seats in all.										
Children of University Alumni	O											
B.Tech(P)	P											
Bhakkar and Layyah Districts	R											
Children of Overseas Pakistanis	S	5	2		5	5	5			2	2	26
Children of Overseas Pakistanis (DAE)	SI											
Disabled (Punjab Domiciled)	T	1		1								2
Sub-total (i)		48	53	36	51	51	51	153	102	51	51	647

## Reserved Seat Allocation Chart for Faculty of Faculty of Architecture and Planning & Faculty of Natural Sciences, Humanities and Islamic Studies

Category Description	Category	Architecture Lahore	Product & Industrial Design Lahore	City and Regional Planning Lahore	Chemistry	Mathematics	Physics	BBA	BBIT	ESK	ESF	Total
Sindh	B			1								1
Baluchistan	C	1		1								2
KPK	D			5								5
Azad Kashmir	E			2								2
Azad Kashmir (Lepa Valley)	E	Open - Choice open to the candidate – A total of one seat in all.										
Gilgit Baltistan	E			1								1
Foreign (under Economics Affairs Division)	H1	2		3								5
Afghan Nationals	H2	Open – Upper limit of 05 seats in major disciplines in Lahore Campus – A total of 44 seats in all.										
OIC Nominees	H2											
Indian Occupied Kashmir	H3	Open – Upper limit of 03 seats in major disciplines – A total of 15 seats in all.										
Cultural Exchange (Yemen)	H4											
Army	J											
Air Force	J											
Navy	J											
FATA	K											
DG Khan (Tribal Area)	Q											
Rajanpur (Tribal Area)	Q											
Baluchistan/ FATA (HEC Scholars)	U											
HEC Self Finance	SF	Open - Upper Limit of 05 seats in each discipline – A total of 50 seats in all.										
Sub-total (ii)		3	-	13	-	-	-					16
Sub-total (i)		48	53	36	51	51	51	153	102	51	51	647
Grand Total		51	53	49	51	51	51	153	102	51	51	663

## IMPORTANT CONTACT INFORMATION

DESIGNATION	OFFICE	E-MAIL	DESIGNATION	OFFICE	E-MAIL
VICE CHANCELLOR	042-99250201	vc@uet.edu.pk	Metallurgical Engg & Material Science	042-99029207	chairmanmet@uet.edu.pk
	042-99029205		Mining Engineering	042-99029212	chairmanmining@uet.edu.pk
	042-99250202 Fax		Petroleum Engineering	042-99029471	chairmanpetroleum@uet.edu.pk
<b>DEANS OF FACULTIES</b>			Physics	042-99029204	chairmanphy@uet.edu.pk
Faculty of Electrical Engineering	042-99029234	deanee@uet.edu.pk	Polymer & Processing Engineering	042-99029505	chairmanpolymer@uet.edu.pk
Faculty of Mechanical Engineering	042-99029221	deanmech@uet.edu.pk	Transportation Engineering & Management	042-99029428	Chair-tem@uet.edu.pk
Faculty of Civil Engineering	042-99029222	deancivil@uet.edu.pk	Product & Industrial Design	042-99029203	chairmanpid@uet.edu.pk
Faculty of Chemical, Mineral and Metallurgical Engineering	042-99029230	deancmme@uet.edu.pk	<b>HEADS OF NON TEACHING DEPARTMENTS</b>		
Faculty of Architecture & Planning	042-99029250	deanarch@uet.edu.pk	Chairman Health Committee	042-99029240	chairmanee@uet.edu.pk
Faculty of Natural Sciences, Humanities and Islamic Studies	042-99029215	deannshis@uet.edu.pk	Director Financial Aid & Career Services	042-99029218	facts@uet.edu.pk
<b>CHAIRPERSONS OF TEACHING DEPARTMENTS</b>			Chairman Transport Committee	042-99029266	ctc@uet.edu.pk
Architecture	042-99029223	chairmanarch@uet.edu.pk	Chief Medical Officer	042-99029240	cmo@uet.edu.pk
Architecture Engineering & Design	042-99029419	chairmanaed@uet.edu.pk	Controller of Examinations	042-99029235	examination@uet.edu.pk
Chemical Engineering	042-99029488	chairmanchemical@uet.edu.pk	Convener Admission Committee / Incharge Student Section/	042-99029216	admission@uet.edu.pk
Chemistry	042-99029239	chairmanchemistry@uet.edu.pk	International Students Office	042-99250212	drsaleemkhan@uet.edu.pk
City & Regional Planning	042-99029203	chairmancrp@uet.edu.pk	Director General Research Ext & Advisory Services	042-99029237	mtahir@uet.edu.pk
Civil Engineering	042-99029202	chairmancivil@uet.edu.pk	Director Studies	042-99029251	Dir.studies@uet.edu.pk
Computer Science & Engineering	042-99029260	chairmancse@uet.edu.pk	Director Students Affairs	042-99029244	dsa@uet.edu.pk
Electrical Engineering	042-99029229	chairmanee@uet.edu.pk	Focal Person Higher Education Commission	042-99029144	hecfocalperson@uet.edu.pk
Institute of Environmental Engg.	042-99029248	sajjad@uet.edu.pk	Librarian	042-99029243	lib@uet.edu.pk
Geological Engineering	042-99029297	chairmangeological@uet.edu.pk	Project Director	042-99029238	pd@uet.edu.pk
Humanities and Social Science	042-99029493	chairmanhmss@uet.edu.pk	Public Relation Officer	042-99029358	pro@uet.edu.pk
Industrial & Manufacturing Engineering	042-99029226	chairmanime@uet.edu.pk	Registrar	042-99029227	registrar@uet.edu.pk
Islamic Studies	042-99029246	chairmanislamic@uet.edu.pk	Resident Auditor	042-99029232	ra@uet.edu.pk
Mathematics	042-99029210	chairmanmath@uet.edu.pk	Senior Warden	042-99029225	seniorw@uet.edu.pk
Mechanical Engineering	042-99029466	chairmanmech@uet.edu.pk	Treasurer	042-99029233	treasurer@uet.edu.pk
Mechatronics & Control Engineering	042-99029294	chairmanmce@uet.edu.pk			



# Thank You

## ACKNOWLEDGEMENTS

This prospectus in its current form would not have been possible without contributions from various departments and offices of the administration.

Vice Chancellor Professor Dr. Syed Mansoor Sarwar, as patron was always encouraging and providing critical feedback on various aspects. His support in our endeavors is gratefully acknowledged. Special thanks to all chairpersons of the departments and Registrar who provided us necessary information for inclusion in this prospectus. Team that put in extraordinary hard work in preparing the actual prospectus needs special mention and acknowledgments.

Dr. Hasan Erteza Gelani and Mr. Noor-ud-Din Muhammad Jahangir were instrumental in preparing editing and finalizing the information provided by the departments and institutes. Prof. Dr. Mohammad Ali Maud compiled and finalized the regulations portion of the prospectus. Naveed Ahmad Rana, Muhammad Asif and Javed Iqbal were always there to help the teams working on the prospectus.

# Admission Forms

**DULY FILLED FORMS TO BE SUBMITTED  
BY SELECTED CANDIDATES**

**Compulsory forms**

- **FORM-I: Declaration Form**
- **FORM-II: Application Submission Declaration**
- **FORM-IX: Bio-Data Card**
- **FORM-X: Medical Certificate**
- **FORM-XI: Undertaking (SAMPLE)**
- **Income Certificate**
  - **For employed parents/ guardians: Last drawn salary certificate**
  - **For self employed: Income certificate in the form of an undertaking duly attested by a class-I gazette officer**

**Optional Forms (To be filled only if applicable)**

- **FORM-III: Government Employee Certificate**
- **FORM-IV: Election Officer Certificate**
- **FORM-V: UET Employee Certificate**
- **FORM-VI: Marriage Certificate (For “M” Category Only)**
- **FORM VIII: Overseas Category’s Certificate**



Serial Number: \_\_\_\_\_

Form-I

## Declaration Form (Entry 2021)

### i) Muslims Only

A) I solemnly declare that I believe that Hazrat Muhammad (SAWS) is the last Prophet of Allah and there is and was no Prophet after him. And that I have firm faith in Islam and I am not the follower of any such person who claims to be a prophet or religious reformer after Hazrat Muhammad (peace be upon him). I do not belong to Qadiani, Ahmadi or Lahori Group.

**Signature of the Applicant**

### ii) All Applicants

I hereby affirm that the entries on all the forms are correct to the best of my knowledge and that I shall abide by all the rules and regulations which the University authorities may prescribe for the students

**Signature of the Applicant**

### iii) Parents or Guardian:

I certify that my son/daughter/ward makes this application with my knowledge and consent, and that I hold myself responsible for his/her conduct.

**Signature of Parent/Guardian**

**(APPLICATION SUBMISSION DECLARATION)**

I \_\_\_\_\_  
son/daughter of \_\_\_\_\_ do solemnly declare that I have not applied for admission in any Engineering  
Institution in the country with a domicile other than that of the Punjab Province/Federal Capital Area, Islamabad.

**Signature of the applicant**

Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

Dated : \_\_\_\_\_

**Signature of the applicant's parent**

Name \_\_\_\_\_

Full Address \_\_\_\_\_

\_\_\_\_\_

Dated : \_\_\_\_\_

**CERTIFICATE**

(To be given by the Head of Department not below a Class I Gazetted Officer)

This is to certify that Mr/ Mrs \_\_\_\_\_

father/ mother of the applicant namely \_\_\_\_\_

is an employee of the Department of \_\_\_\_\_

\_\_\_\_\_ and he/ she has served in the province of Sind / KPK. / Baluchistan in his/ her capacity as

(state rank/ BPS) \_\_\_\_\_

From \_\_\_\_\_ to \_\_\_\_\_

It is further certified after due verification of his/her official record that he/she is permanent resident of Punjab

**Signature of the  
Head of Department**

Name \_\_\_\_\_

Dated : \_\_\_\_\_

**(Official Seal)**

**Signature of the applicant's parent**

**Signature of the applicant**

**CERTIFICATE**

(To be given by the Election Officer)

I (name of the Election Officer) \_\_\_\_\_

Being the Election Officer of:

Ward No. \_\_\_\_\_ Area \_\_\_\_\_

City/Town \_\_\_\_\_ Tehsil \_\_\_\_\_

District \_\_\_\_\_ in the Punjab Province / Federal Capital Area, Islamabad do hereby certify that the name of  
(applicant's father)

Mr. \_\_\_\_\_ son of Mr. \_\_\_\_\_

appears on page \_\_\_\_\_ of the latest electoral roll of voters of the area under my control. This electoral roll was published in  
the year \_\_\_\_\_

**Signature**  
**ELECTION OFFICER**

Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Dated : \_\_\_\_\_

**(Official Seal)**

**Signature of the applicant's father/ parent**

**Signature of the applicant**

Applicants  
Photograph

Parent's  
Photograph

**CERTIFICATE**  
(Given by the Registrar, UET, Lahore)

It is to certify that Mr. / Mrs. \_\_\_\_\_

Father/Mother of applicant \_\_\_\_\_

has been a full-time employee of the University from \_\_\_\_\_ to \_\_\_\_\_

as \_\_\_\_\_ in the \_\_\_\_\_ department/branch.

He/She has continuously served the university for a period not less than five years (being physically present in the university during the period)

Further certified that he/she

- a) did not leave the university service by resigning and
- b) was not dismissed, removed or debarred from the University service under its Efficiency and Discipline Rules
- c) has not been transferred to the University of Engineering and Technology, Taxila.

Signature of the  
Registrar

Dated: \_\_\_\_\_

(Official Seal)

**CERTIFICATE**

(Certificate is to be given by a Class-I Gazetted Officer)

The family of the applicant

Mr./ Miss. \_\_\_\_\_

son/ daughter of \_\_\_\_\_

is personally known to me and I certify that the applicant is not married.

Signature \_\_\_\_\_

Name \_\_\_\_\_

Full Address \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**(Official Seal)**

Dated : \_\_\_\_\_

**CERTIFICATE FROM OVERSEAS PAKISTANIS FOR ADMISSION OF THEIR CHILDREN / WARDS ON  
RESERVED SEATS UNDER CATEGORY S & SI**  
(PLEASE FILL IN BLOCK LETTERS ONLY)

The University of Engineering & Technology, Lahore has reserved one hundred and sixty eight (168) seats in its Bachelor's Degree Programs for the Children / Wards of Pakistanis working in foreign countries. To ensure that these seats go to the rightful claimants, **the parent (father / mother / guardian) of the applicant is required to get this certificate signed from the Pakistani Embassy in the country in which he/she is working. The sponsor should also get the photocopies of his/her passport and resident visa/residence permit attested by the same Embassy.**

Overseas Sponsor's  
Photograph  
  
Attested by  
Concerned Embassy

University of Engineering and Technology (UET) Lahore, Pakistan will be obliged to the respective Pakistani embassies for their co-operation in providing the following information.

Embassy of the Islamic Republic of Pakistan of (Country) \_\_\_\_\_

Name of Pakistani Citizen Residing in the Jurisdiction of the Embassy: \_\_\_\_\_

Father's Name of Pakistani Citizen: \_\_\_\_\_

Passport No.: \_\_\_\_\_ Date of Issue: \_\_\_\_\_ Date of Expiry: \_\_\_\_\_

Stay in that country since \_\_\_\_\_

CNIC No: \_\_\_\_\_

Date of Issue of Visa/ Residence Permit: \_\_\_\_\_ Date of Expiry: \_\_\_\_\_

Employer/ Profession: \_\_\_\_\_

Present Address: \_\_\_\_\_

**Authorized Signature  
Embassy of Pakistan  
(Official Embossed Seal)**

**Name of Applicant for Admission to UET Lahore :**  
\_\_\_\_\_

**Relationship of Applicant with Pakistani Citizen Whose Credentials are given above :**  
(Son/ Daughter/ Ward)

Applicant's  
Photograph

**IMPORTANT INSTRUCTIONS**

**Definition of a Guardian For Applicants who are Orphans :**  
(i) Real brother; (ii) Real maternal uncle (Mamoo) (iii) Real paternal uncle (Chacha, Taya)

- In case of an orphan following additional documents are required: (1) Father's death certificate issued by NADRA; (2 ) Proof of relationship with the guardian in the form of CNIC of all family members and NADRA Family Registration Certificate (FRC) highlighting the Family Tree structure of the applicant; (3) Copy of Nikahnama in case the guardian is the maternal uncle (Mamoo) of the applicant.
- Incomplete Form/Form without documents shall not be acceptable in any circumstances.**

**WARNING**

- Fake / tempered documents shall be rejected and such students will be black listed and they will not be eligible for admission in any university of Pakistan.**

Application Form No. \_\_\_\_\_

**BIODATA CARD**  
**UNIVERSITY OF ENGINEERING AND TECHNOLOGY, LAHORE**

To be submitted by the selected candidates only

Photograph

**A PERSONAL RECORD**

1. Name of Applicant \_\_\_\_\_
2. Discipline applied for \_\_\_\_\_
3. Religion \_\_\_\_\_
4. Place / Date of Birth \_\_\_\_\_
5. Permanent Home Address \_\_\_\_\_

**B FAMILY RECORD**

1. Father's Name \_\_\_\_\_
2. Father's Occupation \_\_\_\_\_
3. Father's Address \_\_\_\_\_
4. Father's Pay \_\_\_\_\_
5. Mother's Occupation and Pay (if any) \_\_\_\_\_
6. Income from any other source \_\_\_\_\_
7. Total Family Income (Monthly) \_\_\_\_\_

**C EXTRA CURRICULAR RECORD**

1. Member/Office Bearer of any Team, Club Society \_\_\_\_\_  
 Social Organization during School/College period \_\_\_\_\_
2. Prizes or Distinction, if any \_\_\_\_\_
3. Hobbies \_\_\_\_\_

**D ACADEMIC RECORD**

Name of School College	Examination Passed	Year of Passing	Percentage Marks	Division / Grade
	Matriculation			
	F.Sc. or equivalent Examination			
	B.Sc.			

**UNDERTAKING**

I solemnly undertake that before appearing in the Final Examination of the Bachelor's Degree Programme, I shall make one person literate so that he will be able to

- i). read and write his name;
- ii). make simple calculations;
- iii). read and write a simple statement
- iv). read a Qurani Qaaida, e.g., Yassarnal Quran

Dated : \_\_\_\_\_

Signature of Candidate \_\_\_\_\_

**Note :** Please fill in all the portions



# MEDICAL CERTIFICATE

Form-X

to be submitted by the selected candidates only

I certify that I have carefully examined Mr./Miss./Mrs. \_\_\_\_\_

son / daughter of \_\_\_\_\_ Registration No. / Test Roll No. \_\_\_\_\_ Date of birth \_\_\_\_\_

Gender \_\_\_\_\_ CNIC/ B-Form \_\_\_\_\_

Number: \_\_\_\_\_

Residential Address \_\_\_\_\_

Session \_\_\_\_\_ Campus \_\_\_\_\_

Contact Number \_\_\_\_\_

History (to be filled by student and verified by recognized Medical Professional (RMP))

- i. Family History of any Medical or Psychiatric illness
- ii. Past Medical and surgical History, if any
- iii. History of Substance abuse in family
- iv. Decreased appetite and loss of weight

I certify that he/she is fit to perform laboratory/ workshop work and fit to write and solve mathematical problems. He/she meets the physical standard described at the back of the form.

His/her particulars are as under:

(Kindly state measurement units where required, such as feet, inches, cm, lb or kg)

1. Age \_\_\_\_\_ years.

2. Weight \_\_\_\_\_

3. Height \_\_\_\_\_

4. Blood Pressure \_\_\_\_\_

5. Temperature \_\_\_\_\_

6. Pulse Rate \_\_\_\_\_

7. Respiratory Rate \_\_\_\_\_

8. Chest Unexpanded \_\_\_\_\_ Expanded \_\_\_\_\_

9. Vision : Left Eye \_\_\_\_\_

Right Eye \_\_\_\_\_

Details of glasses (if worn) \_\_\_\_\_

10. Marks of Identification:: i) \_\_\_\_\_ ii) \_\_\_\_\_

11. Any other remarks: \_\_\_\_\_

Signature of the applicant  
(in the presence of the Medical Office)

Registered Medical Officer / Practitioner  
PMDC Registration Number: \_\_\_\_\_

## PHYSICAL STANDARD FOR ADMISSION

For admission a candidate must be in good mental and physical health and free any physical defect. The fitness requirements are given below:-

1. The candidate does not suffer from any communicable disease.
2. Does not bear traces of any previous acute or chronic disease pointing to an impaired constitution or permanent disability
3. Does not suffer from any inveterate skin disease.
4. Does not have any congenital malformation or defect.
5. Limbs are well-formed and developed.
6. There is free and perfect motion of all joints.
7. Chest is well formed and normal
8. Distant vision 6/9 in one eye and 6/12 in the other WITH or WITHOUT glasses. He/she must have normal field and colour of vision, muscular balance, right vision and binocular vision.
9. Hearing is good WITH or WITHOUT a hearing aid and there is not sign of ear disease.
10. Teeth are in good order. Well-filled teeth will be considered as Sound.
11. Lungs and heart are sound.
12. He does not suffer from a severe degree of varicose veins. A candidate who had been successfully operated upon is accepted.

**UNDERTAKING** (Sample)

**To be submitted by selected candidates only  
On a Rs. 100/- Judicial paper duly completed**

I Mr. / Mrs. \_\_\_\_\_ Son/daughter of Mr. \_\_\_\_\_ provisionally selected for admission to Undergraduate program of \_\_\_\_\_ in the University of Engineering and Technology, Lahore, do solemnly declare that I will have no direct/indirect affiliation with any political party during my stay in the University and shall not indulge in politics.

In case I am found guilty of indulging in politics, I may be expelled from the University without any further notice.

Date:
Witness-1
Signature
Name
Address
National I.D. Card No.

Signature
Name
Address
Witness-2
Signature
Name
Address
National I.D. Card No.

I Mr. / Mrs. \_\_\_\_\_ S/D. \_\_\_\_\_ father/guardian of Mr./Miss. \_\_\_\_\_ have read the above undertaking. I do hereby affirm to be responsible, for his/her behavior, during his/her stay at the University. In case he/she violates the above undertaking, I shall have no objection to his/ her expulsion from the University.

Date:
Witness-1
Signature
Name
Address
National I.D. Card No.

Signature of Father / Guardian
Name
Address
Witness-2
Signature
Name
Address
National I.D. Card No.

Attested by  
District Coordination officer / Judicial Magistrate

## DISCLAIMER

The contents of this prospectus are for information and shall NOT be taken as binding on the University. Each aspect of the education set up, like admission procedure or criteria, academic rules and regulations, discipline regulations, admissible fees, etc. requires continuous review by the competent authorities. The University therefore reserves the right to change rules, regulations, fees applicable, etc. to students whenever it is deemed appropriate or necessary. Inquiries concerning admission should be addressed to:

Convener Admission Committee  
UNIVERSITY OF ENGINEERING AND TECHNOLOGY  
G.T. Road, Lahore - 54890, PAKISTAN.  
Telephone: +92 42 99029216, +92 42 99029452  
E-mail: admission@uet.edu.pk

### Serial No. & Token No.

7XXXX

XXXXXXXXXXXX

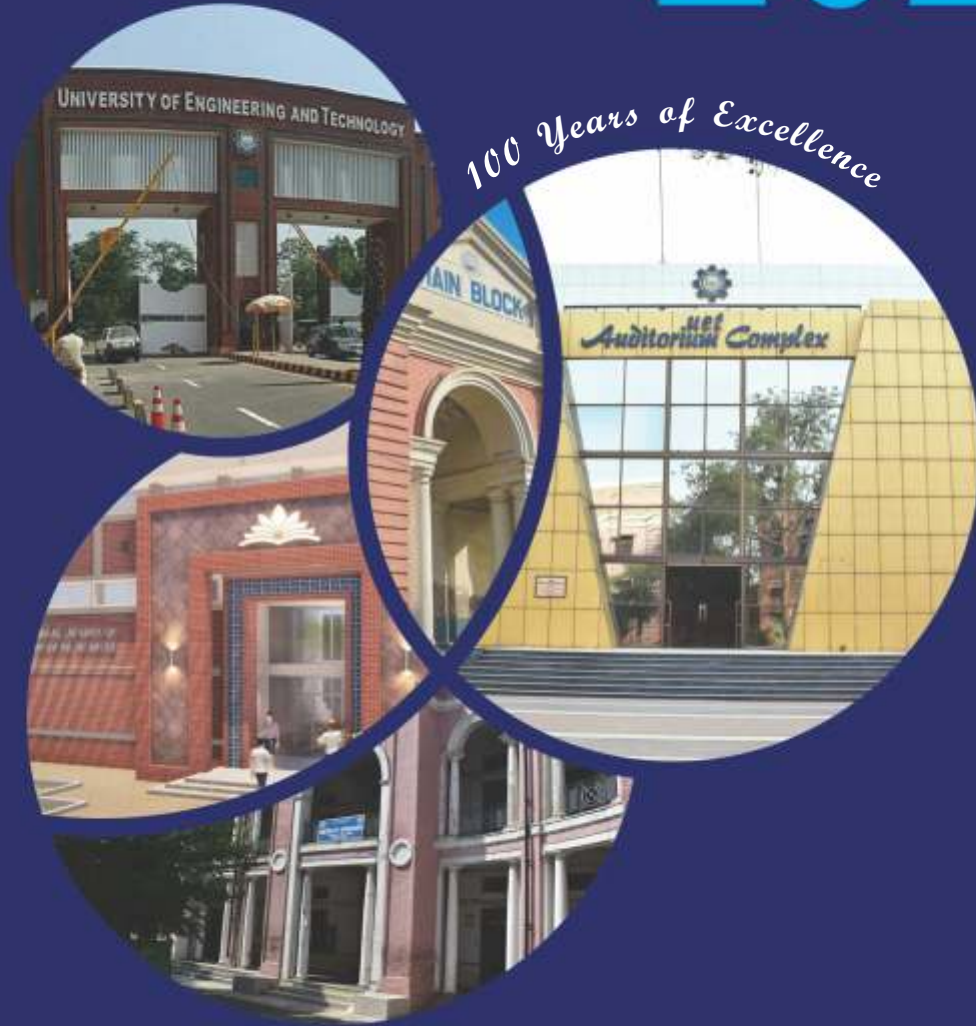
Price: Rs. 600/-

Processing Fee: Rs 1,000/-

Total payable at the time of purchase of prospectus: Rs 1,600/-

# 2021

Undergraduate Prospectus



University of Engineering & Technology, Lahore