



UNIVERSITY OF ENGINEERING & TECHNOLOGY, LAHORE

UNDERGRADUATE
PROSPECTUS 2022

CONTENTS

Vision and Mission	3
Chancellor's Message	4
Vice Chancellor's Message	5
Officers of the University	6
Deans of Faculties	7
Chairpersons / Directors of Teaching Departments / Institutes	8
Head of Non-Teaching Departments	9
Academic Calendar	10
The University	11
Degree Programs Offered at UET	12
Affiliated Institutions & Programs Offered	13
UG Admission Process Schedule	14
Admission Eligibility and Procedure	15
Determination of Merit	20
Application Categories and Symbols	22
Application filling and Submission	26
Procedure for the selected candidates	28

FACULTIES & DEPARTMENT

Lahore Campus

Department of Electrical Engineering	32
Department of Computer Science	35
Department of Computer Engineering	39
Department of Mechanical Engineering	42
Department of Industrial & Manufacturing Engineering	46
Department of Mechatronics & Control Engineering	49
Department of Civil Engineering	53
Department of Architectural Engineering & Design	56
Department of Transportation Engineering & Management	59
Institute of Environmental Engineering & Research	62
Department of Chemical Engineering	65
Department of Polymer & Process Engineering	68
Department of Metallurgical & Materials Engineering	72
Department of Mining Engineering	76
Department of Geological Engineering	80
Department of Petroleum & Gas Engineering	83
Department of Architecture	86
Department of City & Regional Planning	89
Department of Product & Industrial Design	93
Department of Chemistry	96
Department of Mathematics	99
Department of Physics	102
Department of Humanities, Management & Social Sciences	106
Department of Islamic Studies	107
Institute of Business and Management	108

KSK Campus

Department of Electrical, Electronics & Telecommunication Engineering	111
Department of Energy Engineering	112
Department of Bio-Medical Engineering	112
Department of Mechanical, Mechatronics & Manufacturing Engineering	115
Department of Chemical, Polymer & Composite Material Engineering	116
Department of Food Engineering and Bio-Technology	117
Department of Basic Sciences and Humanities	118
Department of Management	119
Department of Computer	120

Faisalabad Campus

Department of Electrical, Electronics & Communication Engineering	123
Department of Mechatronics and Control Engineering	124
Department of Chemical and Polymer Engineering	125
Department of Textile Engineering and Technology	126
Department of Humanities, Basic Sciences and Islamic Studies	128

Rachna Campus

Department of Electrical Engineering	131
Department of Mechanical Engineering	132
Department of Industrial & Manufacturing Engineering	133
Department of Computer Science and Engineering	133
Department of Natural Sciences, Humanities & Islamic Studies	134

Narowal Campus

Department of Electrical Engineering	137
Department of Computer Science and Engineering	138
Department of Mechanical Engineering	139
Department of Civil Engineering	140
Department of Bio-Medical Engineering	141
Department of Basic Sciences & Humanities	142

RULES & REGULATIONS

Important Information	144
Undergraduate Semester Regulations	145
Examination Regulations	152
Visiting Students Policy	156
Migration Regulations	157
Code of Ethics	158
Code of Honour	159
Authorities to check indiscipline	160
Penalties for Acts of Indiscipline	161
General Discipline Rules Relating to Students	162
UG Fee Regulations	163
Financial Assistance and Scholarship Policy	165
Fee Structure	167
UG Fee Schedule for Session 2022	168
Departmental Position on Merit Basis 2021	169
Seat Allocation chart	170
Important Contact Information	178
Acknowledgment	179
Disclaimer	180

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

The University of Engineering and Technology (UET) Lahore holds a place of eminence among the prestigious engineering universities of the world. Being a pioneering institution of engineering and technology in Pakistan, UET has unlocked all its potential in imparting quality education, enabling the students to display scholarly autonomy in learning and research and contribute to sustainable development. The recent QS ranking of UET Lahore in engineering and technology evidently substantiates the competence, commitment, and efforts of the faculty, administration and students. With the largest number of Outcome Based Education (OBE) accredited programs in Pakistan, UET Lahore is also a flag bearer of quality engineering education. HEC research grants and international funding worth hundreds of million of rupees won by the faculty members of UET collaboration aimed

at solving major social, educational and technical problems through research projects. The recent strides and contributions of UET Lahore in digitalizing scientific and technological education in Pakistani universities are highly remarkable. I am confident that UET will keep expanding its horizons through external linkages aimed at improving the quality of research and education at its main campus, sub-campuses and affiliated colleges.



Muhammad Baligh-ur-Rehman
Governor Punjab
Chancellor University of Engineering & Technology, Lahore

VICE CHANCELLOR'S MESSAGE

Despite challenges and difficulties being faced by the administration, a concerted effort, with the help of faculty and staff, is being made to achieve the milestones set for teaching, research, commercialization, entrepreneurship and better learning outcomes in all programs. These efforts have led to improvement in quality of education, services as well as national and international ranking of the University. Moreover, stronger linkages with alumni, industry, Government and international partners are being pursued.

It is a great honor for me to serve my alma mater, UET, which last year celebrated hundred years of excellence in engineering education. The realignment of institute's vision and mission has led to a rapid growth in research, innovation as well as quality education, which are necessary for technological development in the country and ultimately, financial independence.

I congratulate you for choosing UET and accepting the challenge to become a well-rounded individual who has both the advanced knowledge in his field and integrity to lead technological progress and confront societal challenges.



Prof. Dr. Syed Mansoor Sarwar
Vice Chancellor
University of Engineering and Technology, Lahore

UNIVERSITY OF ENGINEERING AND TECHNOLOGY LAHORE

Chancellor

MUHAMMAD BALIGH-UR-REHMAN

Governor of Punjab

Vice Chancellor

PROF. DR. SYED MANSOOR SARWAR

Registrar

MUHAMMAD ASIF

Controller of Examinations

MUHAMMAD ZARGHAM NUSRAT

Treasurer

IMRAN BABAR

DEANS OF FACULTIES

Faculty of Electrical Engineering
PROF. DR-ING. NAVEED RAMZAN

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. HABIB UR REHMAN

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

CHAIRPERSONS / DIRECTORS OF TEACHING DEPARTMENTS / INSTITUTES

MAIN CAMPUS

Electrical Engineering
PROF. DR. MUHAMMAD TAHIR

Computer Science
PROF. DR. MUHAMMAD SHOAIB

Computer Engineering
PROF. DR. ALI HAMMAD AKBAR

Mechanical Engineering
PROF. DR. NASIR HAYAT

Industrial & Manufacturing Engineering
PROF. DR. Muhammad QAISER SALEEM

Mechatronics & Control Engineering
DR. ALI RAZA

Civil Engineering
PROF. DR. KHALID FAROOQ

Institute of Environmental Engineering & Research
PROF. DR. AMIR IKHLAQ

Architectural Engineering & Design
PROF. DR. SAJJAD MUBIN

Transportation Engineering & Management
PROF. DR. AMMAD HASSAN KHAN

Chemical Engineering
PROF. DR. SAIMA YASIN

Polymer & Process Engineering
PROF. DR. ASIF ALI QAISER

Department of Mining Engineering
DR. SHAHAB SAQIB

Department of Geological Engineering
PROF. DR. MUHAMMAD FAROOQ AHMED

Petroleum and Gas Engineering
PROF. DR. M. KHURRAM ZAHOOR

Metallurgical & Materials Engineering
PROF. DR. FURQAN AHMED

Architecture
DR. MUNAZZA AKHTAR

Product & Industrial Design
DR. ATIF BILAL ASLAM

City & Regional Planning
PROF. DR. SHAKER MAHMOOD MAYO

Physics
PROF. DR. ANWAR LATIF

Chemistry
PROF. DR. FARHAT YASMEEN

Mathematics
PROF. DR. MUHAMMAD MUSHTAQ

Humanities & Social Sciences
DR. MEHVISH RIAZ

Islamic Studies
PROF. DR. HAFIZ MUHAMMAD SHAHBAZ

Institute of Business and Management
DR. MUHAMMAD NASIR MALIK

NEW CAMPUS (KSK)

Chemical, Polymer & Process Engineering
PROF. DR. TANVEER IQBAL

Mechanical, Mechatronics and Manufacturing Engineering
PROF. DR. SHAHID IMRAN

Basic Sciences & Humanities
DR. KASHIF REHAN

Computer Sciences
PROF. DR. HAFIZ M. SHAHZAD ASIF

Bio-Medical Engineering
DR. ABDUL RAUF ANWAR

Electrical, Electronics and Telecommunication Engineering
DR. MUHAMMAD ALI

Energy Engineering Department
DR. HASAN ERTEZA GELANI
(Teacher Incharge)

FAISALABAD CAMPUS

Chemical, Polymer & Process Engineering
PROF. DR. SYED WAQAS AHMAD

Textile Engineering
PROF. DR. MUHAMMAD MOHSIN

Mechatronics & Control Engineering.
PROF. DR. HASSAN IJAZ
Electrical, Electronics and Telecommunication Engineering
DR. MUHAMMAD AKRAM

Basic Sciences & Humanities
DR. SAJJAD AHMAD

RCET, GUJRANWALA

Electrical Engineering
DR. HAROON FAROOQ

Mechanical Engineering
DR. MUHAMMAD SALMAN ABBASI

Basic Sciences and Humanities
DR. ADNAN ASLAM

Computer Sciences
DR. ABDUL JALEEL

NAROWAL CAMPUS

Electrical Engineering
DR. WAQAS TARIQ TOOR

HEADS OF NON-TEACHING DEPARTMENTS

Director Research, Innovation and Commercialization

DR. MUHAMMAD AZEEM RAZA

Director Studies

PROF. DR. AMMAD HASSAN KHAN

Senior Warden

PROF. DR. MUHAMMAD MUSHTAQ

Convener Admission Committee / In-charge Students Section

DR. ASIM LOAN

Focal Person Higher Education Commission

DR. MUHAMMAD AZEEM RAZA

Chairman Health Committee

PROF. DR. KASHIF JAVED

Chairman Transport Committee

PROF. DR. ZIA-UR-REHMAN

Chairman Library Committee

PROF. DR. ASADULLAH QAZI

Chairman Proctorial Board

PROF. DR. MUHAMMAD SHOAIB

Chairman Sports Committee

PROF. DR. SHAKER MAHMOOD MAYO

Director Repair and Maintenance Centre

PROF. DR. WAQAR MAHMOOD

Director Automotive Engineering Centre

PROF. DR. ASAD NAEEM SHAH

Director Students Affairs

PROF. DR. ASIF ALI QAISER

Coordinator International Students Office

DR. AMNA NIAZI

Director Students Financial Aid & Career Services

DR. MUHAMMAD USMAN GHANI KHAN

Director, Al-Khawarizmi Institute of Computer Sciences

PROF. DR. WAQAR MAHMOOD

Director Planning and Development

DR. QASIM MANZOOR

Project Director Lahore Campus

ENGR. ASAD MASOOD

Project Director University City Campus

ENGR. AWAIS MALIK

Project Director Faisalabad Campus

ENGR. AWAIS MALIK

Resident Officer

MUHAMMAD ASIF

Resident Auditor

DR. ZUBAIR FAROOQ

Public Relations Officer

Ms. SHAHIDA NAZEER

Director Quality Enhancement Cell

DR. FARHAN MAHMOOD

ACADEMIC CALENDAR (2021-2022)

Fall Semester (For Sessions 2019 to 2021)	
Semester Starts	Monday, 5 th September 2022
Semester Ends (after 16 weeks)	Friday, 23 rd December 2022
Examination period	Monday, 26 th December 2022 to Friday, 6 th January 2023
Semester Break	Monday, 9 th January 2023 to Friday, 13 th January 2023
Deadline for Submission of Results	Friday, 13 th January 2023

Spring Semester (For Sessions 2019 to 2021)	
Semester Starts	Monday, 16 th January 2023
Semester Ends (after 16 weeks)	Friday, 5 th May 2023
Examination period	Monday, 8 th May 2023 to Friday, 19 th May 2023
Deadline for Submission of Results	Friday, 26 th May 2023

Summer Semester (Optional) (For Session 2019 to 2021)	
Semester Starts	Monday, 26 th June 2023
Semester Ends (after 8 weeks of study)	Friday, 18 th August 2023
Examination Period	Monday, 21 st August 2023 to Friday, 25 th August 2023
Deadline for Submission of Results	Friday, 1 st September 2023

Fall Semester (For Session 2022)	
Semester Starts	Monday, December 05, 2022
Semester Ends (after 15 weeks)	Friday, March 17, 2023
Examination period	Monday, March 20, 2023 to Monday, March 27, 2023
Deadline for Submission of Results	Friday, March 31, 2023

Spring Semester (For Session 2022)	
Semester Starts	Monday, April 03, 2023
Semester Ends (after 15 weeks)	Friday, July 14, 2023
Examination period	Monday, July 17, 2023 to Friday, July 21, 2023
Deadline for Submission of Results	Monday, July 31, 2023

Guided Summer Semester (Optional) (For Session 2022)	
Semester Starts	Monday, July 31, 2023
Semester Ends (after 4 weeks of study)	Friday, August 25, 2023
Examination Period	Monday, August 28, 2023 to Friday, September 01, 2023

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. The institute started its operation 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 time, 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 time 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 1970's it had established over a score of Master's 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 student's 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, now called Office of Research, Innovation and Commercialization (ORIC), 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 13,163. Currently, 2,527 students are pursuing postgraduate studies. The number of female students enrolling for different disciplines is ever on the increase and is 3,462 at present. The number of foreign students coming from countries, like Iran, Jordan, Kuwait, Kenya, Nepal, Saudi Arabia, Iraq, Bangladesh, Yemen, Somalia, Nigeria, Ethiopia and Sri Lanka is over 479 which gives the University Campus a cosmopolitan character.

The university has 766 teachers of which 382 have a Ph.D. degree, whereas 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) Environmental Science
 - b) Chemistry
 - c) Mathematics
 - d) Physics

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

- i. 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
 - h) Energy Systems Engineering
 - i) Food Science and Bio-Technology
- ii. Bachelor's degree is offered in the following discipline:
 - a) Business Administration
- iii. Bachelor of Science (B.S.) degree is offered in the following disciplines:
 - a) Chemistry
 - b) Mathematics
 - c) Physics

3. Degree Programs at Faisalabad Campus

- i. Bachelor of Science (B.Sc.) degree is offered in the following disciplines:
 - a) Chemical Engineering
 - b) Electrical Engineering
 - c) Mechatronics & Control Engineering
 - d) Textile Engineering
 - e) Computer Science
- ii. Bachelor's degree is offered in the following discipline:
 - a) Business Administration
- iii. Bachelor of Science (B.S.) degree is offered in the following disciplines:
 - a) Chemistry
 - b) Mathematics

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

- i. Bachelor of Science (B.Sc.) degree is offered in the following disciplines:
 - a) Computer Science
 - b) Electrical Engineering
 - c) Industrial & Manufacturing Engineering
 - d) Mechanical Engineering
- ii. Bachelor's degree is offered in the following discipline:
 - a) Business Administration
- iii. Bachelor of Science (B.S.) degree is offered in the following disciplines:
 - a) Mathematics

5. Degree Programs at Narowal Campus

- i. Bachelor of Science (B.Sc.) degree is offered in the following disciplines:
 - a) Biomedical Engineering
 - b) Civil Engineering
 - c) Computer Science
 - d) Electrical Engineering
 - e) Mechanical Engineering
- ii. Bachelor's degree is offered in the following discipline:
 - a) Business Administration
- iii. Bachelor of Science (B.S.) degree is offered in the following disciplines:
 - a) Mathematics
 - b) Physics

AFFILIATED INSTITUTIONS AND PROGRAMS OFFERED

<p>1. NFC Institute of Engineering and Fertilizer Research Faisalabad</p> <ul style="list-style-type: none"> 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 	<p>6. Quaid-e-Azam College of Engineering and Technology, Sahiwal</p> <ul style="list-style-type: none"> 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
<p>2. Government College of Technology, Railway Road, Lahore</p> <ul style="list-style-type: none"> a) B.Sc. Mechanical Engineering Technology 	<p>7. Swedish College of Engineering & Technology Rahim Yar Khan</p> <ul style="list-style-type: none"> a) B.Sc. Civil Engineering b) B.Sc. Mechanical Engineering
<p>3. Government College of Technology, Faisalabad</p> <ul style="list-style-type: none"> a) B.Sc. Electrical Engineering Technology 	<p>8. Sir Syed College of Computer Science, Gulberg, Lahore</p> <ul style="list-style-type: none"> a) B.Sc.(Hons) Computer Science
<p>4. Sharif College of Engineering & Technology, Raiwind Road, Lahore</p> <ul style="list-style-type: none"> a) B.Sc. Chemical Engineering b) B.Sc. (Hons) Computer Science c) B.Sc. Electrical Engineering 	<p>9. Government Swedish Pakistani College of Technology, Gujrat</p> <ul style="list-style-type: none"> a) B.Sc. Mechanical Engineering Technology
<p>5. Dr. A. Q. Khan Institute of Technology, Mianwali</p> <ul style="list-style-type: none"> a) B.Sc. Civil Engineering Technology b) B.Sc. Electrical Engineering Technology c) B.Sc. Mechanical Engineering Technology 	<p>10. Grafton College, Islamabad</p> <ul style="list-style-type: none"> a) B.Sc. (Hons) Computer Science b) B.Sc. Electrical Engineering

UNDERGRADUATE ADMISSION PROCESS SCHEDULE 2022

Event	Date	Day
Availability of Undergraduate Prospectus	17-10-2022	Monday
On-line Filling and Submission of Admission Forms Starts	17-10-2022	Monday
Last date of On-Line Submission of Admission Forms	11-11-2022	Friday
Entrance Test for only those applicants who could not appear in ECAT-2022 since they were outside Pakistan and taking their Intermediate or equivalent examination	12-11-2022	Saturday
Hafiz-e-Quran Test Reporting Time 9:30 am	14-11-2022	Monday
Sports Test Reporting Time 9:30 am	15-11-2022	Tuesday
Announcement of 1st Merit List (Evening)	16-11-2022	Wednesday
Last Date of Depositing Dues and Documents for 1st Merit List	24-11-2022	Thursday
Announcement of 2nd Merit List (Evening)	25-11-2022	Friday
Last Date of Depositing Dues and Documents for 2nd Merit List	30-11-2022	Wednesday
Announcement of 3rd Merit List (Evening)	01-12-2022	Thursday
Last Date of Depositing Dues and Documents for 3rd Merit List	05-12-2022	Monday
Regular Classes Commence	05-12-2022	Monday
Announcement of 4th Merit List (Evening)	06-12-2022	Tuesday
Last Date of Depositing Dues and Documents for 4th Merit List	08-12-2022	Thursday
Hostel Allotment Starts	09-12-2022	Friday
Allocation of Registration Numbers in Respective Departments	12-12-2022	Monday

ADMISSION ELIGIBILITY AND 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 (CRP), Product and Industrial Design (PID), Mathematics, Physics, BBA, BBIT
Mathematics, Physics, Statistics	Architecture, City and Regional Planning (CRP), Product and Industrial Design (PID), Mathematics, Physics, BBA, BBIT
Biology, Physics, Chemistry	Biomedical Engineering, Chemistry, Physics, Environmental Science, Food Science and Biotechnology, 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 Aga 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.
- iii. 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.
 - iv. 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.
 - v. He should be a bonafide resident of the area from where he seeks admission.
 - vi. He should meet standards of physique and eyesight laid down in the medical certificate.

3.2 Other Eligibility Requirements

- i. An applicant for admission to any of the B.Sc. Engineering Degree Courses, B.Sc. City & Regional Planning (CRP), 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.
- ii. 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 (CRP), Architecture, Product & Industrial Design, Mathematics, Physics, BBA and BBIT.
- iii. Intermediate or an equivalent examination with Physics, Mathematics and Statistics shall be acceptable only for admission in City & Regional Planning (CRP), Architecture, Product & Industrial Design, Mathematics, Physics, BBA and BBIT.
- iv. 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.
- v. 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.
- vi. 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.
- vii. 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

- i. 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.
- ii. 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)):

- 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

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| <p>viii. B.Sc. Textile Engineering</p> <ul style="list-style-type: none"> 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 | <p>xiii. B.Sc. Metallurgical and Materials Engineering</p> <ul style="list-style-type: none"> 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 |
| <p>ix. B.Sc. Civil Engineering</p> <ul style="list-style-type: none"> 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 | <p>xiv. B.Sc. Polymer and Process Engineering</p> <ul style="list-style-type: none"> 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 |
| <p>x. B.Sc. Architectural Engineering</p> <ul style="list-style-type: none"> a) Diploma in Civil Technology b) Diploma in Architecture Technology c) Diploma in Construction Technology | <p>xv. B.Sc. Petroleum & Gas Engineering</p> <ul style="list-style-type: none"> a) Diploma in Petroleum Technology b) Diploma in Chemical Technology c) Diploma in Petrochemical Technology |
| <p>xi. B.Sc. Transportation Engineering</p> <ul style="list-style-type: none"> a) Diploma in Civil Technology | <p>xvi. B.Sc. Mining Engineering</p> <ul style="list-style-type: none"> a) Diploma in Land and Mine Surveying Technology b) Diploma in Mining Technology |
| <p>xii. B.Sc. Chemical Engineering</p> <ul style="list-style-type: none"> 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 | <p>xvii. B. Architecture</p> <ul style="list-style-type: none"> a) Diploma in Architecture b) Diploma in Civil Technology c) Diploma in Land and Mine Surveying Technology |
| | <p>xviii. B. Product and Industrial Design</p> <p>All Technologies are eligible to apply</p> |
| | <p>xix. B. S. Chemistry, Mathematics and Physics</p> <p>All Technologies are eligible to apply</p> |

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, BBIT, Chemistry, Environmental Science, Mathematics and Physics programs, in 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 2022.

1.1 For admission to bachelor's degree courses in Business (i.e., BBA and BBIT), Chemistry, Environmental Science, Mathematics and Physics programs, in determination of merit the following examinations are considered:

- a) Intermediate examination or equivalent of all combinations.
- b) 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 of 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

A Hafiz -e-Quran is given additional marks in determination of merit. He will get the benefit only if he has:

- a) Checked the box provided in the on-line application form and
- b) Appeared before the "verification committee", appointed by the Vice Chancellor for oral test, which can award marks, between zero to twenty, according to the degree of his proficiency.

The "Verification Committee" will hold oral test at 09:30 am in UET Lahore on Monday, 14-11-2022. It may be noted that no separate call letters will be issued to the concerned applicants in this connection

5.0 CREDIT FOR SPORTS

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) Checked the box provided in the on-line application form; and
- b) Appeared before the “verification committee”, appointed by the Vice-Chancellor, which 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”

The "Verification Committee" will hold sports test at 09:30 am in UET Lahore on Tuesday, 15-11-2022. 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 four 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 in 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?
A1 [Open Merit Seats (subsidized)]	Only Punjab domiciled candidates, having requisite qualification (including DAE), can apply for open merit seats under 'A1' category. Tuition fee is subsidized.	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.
A1-M [Open Merit Seats (subsidized)]	Only Punjab domiciled candidates, having Intermediate (Pre-Medical) qualification can apply for open merit seats under 'A1-M' category. Tuition fee is subsidized.	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.
A2 [Open Merit Seats (partially- subsidized)]	Only Punjab domiciled candidates, having requisite qualification (including DAE), can apply for open merit seats under 'A2' category. Tuition fee is partially subsidized and there is no provision for financial assistance.	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.
A2-M [Open Merit Seats (partially- subsidized)]	Only Punjab domiciled candidates, having Intermediate (Pre-Medical) qualification can apply for open merit seats under 'A1-M' category. Tuition fee is partially subsidized and there is no provision for financial assistance.	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 [Sindh]	The candidate should be a bonafide resident of the Sindh province. Diploma holders are also eligible to apply. Tuition fee is subsidized.	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.
C [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.
D [KPK]	The candidate should be a bonafide resident of the Khyber Pakhtunkhwa (KPK) province. Diploma holders may also apply. Tuition fee is subsidized.	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.
E1 [Azad Kashmir]	The candidate should be a national of Azad Kashmir. Tuition fee is subsidized.	The applications are to be submitted to the Secretary Nomination Board, Azad Government of the State Jammu & Kashmir, Education Secretariat (Colleges), New Secretariat Chatter, Muzaffarabad Azad Kashmir.
E1 [Azad Kashmir (Lipa Valley)]	The candidate should be a national of Lipa Valley, Azad Kashmir. Tuition fee is subsidized.	The applications are to be submitted to the Secretary Nomination Board, Government of the State of Azad Jammu & Kashmir, Education Secretariat (Colleges), New Secretariat, Chatter, Muzaffarabad, Azad Kashmir.
E2 [Northern Areas]	The candidate should be a bonafide resident of Northern Areas (Gilgit-Baltistan) Tuition fee is subsidized.	The applications are to be submitted to the Secretary Nomination Board/Director of Education, Gilgit-Baltistan. Diploma holders are also eligible to apply.
H1 [Foreign Countries]	The candidates having a 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. Tuition fee is subsidized.	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.

H2 [Afghan Nationals]	The candidates should be an Afghan national. The applicant is required to get his application sponsored by his government. Tuition fee is paid by the sponsor.	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.
H3 [Indian Held Kashmir]	The candidates from Indian Held Kashmir can also apply under 'H' Category. Tuition fee is paid by the sponsor.	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.
H4 [Cultural Exchange]	The candidates having a 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. Tuition fee is subsidized.	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.
H5 [Sri Lanka Nationals]	The candidates from Sri Lanka can also apply under this Category. Tuition fee is paid by the sponsor.	Applications are received by Project Director (Sri Lanka-Afghanistan Project), Higher Education Commission, H-9, Islamabad. Selected candidates are nominated by the Higher Education Commission of Pakistan.
J1 [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. Tuition fee is subsidized.	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"> • For Army Seats The Adjutant General, AG'S Branch (W & R Directorate), General Headquarter, Rawalpindi • For Air Force Seats The Deputy Director Education (TRG), Air Headquarter, Peshawar • For Navy Seats The Director, Directorate of Naval Educational Services, Naval Headquarter, Islamabad
J2 [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. Tuition fee is partially subsidized.	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"> • For Army Seats The Adjutant General, AG'S Branch (W & R Directorate), General Headquarter, Rawalpindi • For Air Force Seats The Deputy Director Education (TRG), Air Headquarter, Peshawar • For Navy Seats The Director, Directorate of Naval Educational Services, Naval Headquarter, Islamabad
K [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.

L [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. Tuition fee is subsidized.	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.
M [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. Tuition fee is subsidized.	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. Note: 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.
N [Engineers]	The Punjab domiciled children of Engineers, Architects and Town Planners can apply under this category. Diploma holders cannot apply. Tuition fee is partially subsidized.	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.
NM [Non-Muslims]	Only Punjab domiciled candidates, having requisite qualification (including DAE), can apply for seats for religious minorities under 'NM' category. Tuition fee is partially subsidized.	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.
O [Alumni]	The Punjab domiciled children of Alumni of UET Lahore can apply under this category. Diploma holders cannot apply. Tuition fee is partially subsidized.	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.
P [B.Tech.]	The applicant should be a bonafide resident of Punjab and should have passed B.Sc. Engineering Technology or equivalent degree from an HEC recognized university of Pakistan. Tuition Fee is subsidized.	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.
Q [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. Tuition fee is subsidized.	Applications are submitted to the DCO of respective district. Nominations are made by the DCOs on merit.

R [Layyah and Bhakkar]	The applicant should be a bonafide resident of Layyah and Bhakkar districts. Tuition fee is subsidized.	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.
S [Overseas]	The children of overseas Pakistanis, having requisite qualification can apply under 'S' category. Orphan candidates meeting eligibility requirements may be sponsored by their real brother, real maternal or real paternal uncle. Tuition fee is partially subsidized and there is no provision for financial assistance in this category.	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>
SF [Self Finance for Foreign and Dual Nationals]	Foreigners and Dual Nationals, having requisite qualification, can apply under this category. Tuition Fee is subsidized.	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. The applicant should have appeared in SAT-1. Moreover, if the applicant is interested in applying under other categories then he needs to appear in ECAT too.
T [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.
U1 [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.
U2 [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.

APPLICATION FILLING AND SUBMISSION

1. CORRECTNESS OF INFORMATION ON THE APPLICATION FORM

It is your responsibility to enter correct information while filling the online 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 PROGRAMS THAT DO NOT REQUIRE ECAT

Candidates seeking admission in BBA, BBIT, B.S. Mathematics, B.S. Physics, B.S. Chemistry and B.Sc. Environmental Sciences, who have not appeared in the Combined Entry Test, will choose the button of **No-ECAT** 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 select the submit button. On successful submission, they will receive an e-mail at their e-mail address giving them their Roll number.

2.1 Getting the Admission Code Online

You may get the Admission Code online 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 online 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 Online Banking (For HBL Account Holders only)

- i. Login to the HBL online 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.

3. INSTRUCTIONS FOR FILLING THE ONLINE APPLICATION FORM

- a) You will fill the admission application form by logging into <https://admission.uet.edu.pk> Error! Hyperlink reference not valid.
- 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:
- Enter the name of Board of Intermediate and Secondary Education (BISE) and your registration number in Intermediate examination.
 - Enter your obtained and total marks in Intermediate examination.
- e) In case you are applying based on DAE examination, you will be required to:
- Enter the name of Board of Technical Education and your registration number in DAE examination.
 - Enter the name of your diploma.
 - 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:
- Enter your candidate number in the "A" level examination.
 - Enter the IBCC equivalence certificate number and date issued (if available).
 - Enter your obtained and total marks as indicated on the IBCC equivalent certificate.
 - 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:
- Enter the name of your degree, name of the university and university registration number.
 - 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. After the last merit list, applications for moving into lower merit preference would only be accepted online from admitted candidates only.
- k) Muslim candidates will be asked to check the 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 displayed on the University notice boards and on the UET admission portal <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:

- a) Paid Original Bank Challan as proof of payment of dues. Online 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.
- b) One set of photocopies of each educational document including domicile.
- c) 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.
- d) Six copies of the most recent passport size photograph
- e) Two attested copies of CNIC/ "B" Form.
- f) Bio-data card Form-I duly completed in all respects.
- g) Medical Certificate Form-II duly signed and stamped by Medical Practitioner registered with PMC.
- h) Duly attested Current Income certificate of the parent/ guardian.
- i) 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. <i>Scanned / faxed copy of employment certificate and visa shall not be entertained.</i>

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

3. 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.

4. 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.

5. 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.

6. WARNING

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

7. 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

8. NOTIFICATION OF SELECTION OF CATEGORIES B, C, D, E1, E2, H1, H2, H3, H4, H5, 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.

9. 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

Departments



DEPARTMENT OF ELECTRICAL ENGINEERING

Dean

Prof. Dr. Naveed Ramzan

Chairman

Prof. Dr. Muhammad Tahir

Professor Emeritus

Dr. Karam Elahi Durrani
Dr. Shahid Hussain Bokhari
Dr. Haroon Atique Babri

Professors

Dr. Muhammad Asghar Saqib
Dr. Kashif Javed

Associate Professors

Dr. Asim Loan
Dr. Irfan Ullah Chaudhary
Dr. Umar Tabrez Shami
Dr. Syed Abdul Rahman Kashif
Dr. Farhan Mahmood
Dr. Rabia Nazir
Dr. Ahsan Tahir

Assistant Professors

Dr. Nauman Ahmed
Dr. Syed Shah Irfan Hussain
Dr. Naveed Nawaz
Mr. Arslan Abdul Rahim
Dr. Omer Lateef

Mr. Muhammad Bilal

Dr. Ubaid Ullah Fayyaz
Dr. Adeem Aslam
Dr. Awais Yousaf

Lecturers

Mr. Muhammad Anique Aslam
Mr. Muhammad Salman Fakhar
Ms. Noor ul Ain
Mr. Suleman Sami Qazi
Mr. Omar Imtiaz
Mr. Umar Shahid
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 of electrical engineering.

Program Educational objectives (PEOs)

PEO-01: Graduate should acquire and demonstrate their proficiency of electrical engineering knowledge by inculcating analysis and design skills using modern tools.

PEO-02: Graduate should possess the knowledge translation ability and contribute as an effective team member to reinforce their engineering competency.

PEO-03: Graduates should acquire strong moral values, ethical values, interpersonal and project management skills.

PEO-04: Graduates should build entrepreneurial and innovative mindset to address real world problems.

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.

Laboratories and Other Facilities

The Department has the following well-equipped Laboratories:

- | | |
|----------------------------------|--------------------------------|
| • Power Systems | • Microwave Engineering |
| • Final Year Project Design | • Electric Machine Drives |
| • Control Systems | • Artificial Intelligence |
| • Electrical Machines | • Power Systems Research |
| • Makers Lab | • ZTE GSM-BSS |
| • Supcon Automation | • Communication Systems |
| • Computer Systems | • Basic Electrical Engineering |
| • System Simulation | • Product Research |
| • Power Electronics | • Applied Electricity |
| • Analog and Digital Electronics | • High Voltage Engineering |
| • Wireless Communications | • Advance Machines |

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

Year 1				Year 2			
Semester 1				Semester 2			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
PHY-123	Mechanics and Wave Motion	3	1	PHY-132	Electricity and Magnetism	3	1
ME-238	Thermodynamics	2	1	MA-224	Multivariate Calculus	3	0
IS-101	Islamic and Pakistan Studies/Ethics	3	0	EE-100	Electric Circuits	3	1
MA-123	Calculus	3	0	EE-133	Programming Fundamentals	3	1
EE-132	Introduction to Computing and Data Science	3	1	EE-101	Electrical and Electronics Workshop	0	1
HU-111	Communication Skills	0	1	MA-229	Ordinary Differential Equations	2	0
				QT-101	Translation of the Holy Quran - I	1	0
Semester 3				Semester 4			
Course No	Subject (Pre--requisites)	Credit Hours		Course No	Subject (Pre--requisites)	Credit Hours	
		Th	Pr			Th	Pr
EE-110	Circuit Analysis and Design	3	1	EE-216	Electronic Devices and Circuits	3	1
EE-250	Electric Machinery Fundamentals	3	1	EE-220	Signals and Systems	3	0
HU-221	Technical Writing and Presentation Skills	3	0	EE-272	Digital Systems	3	1
MA-234	Linear Algebra	3	0	EE-302	Applied Probability	3	0
EE-233	Discrete Mathematics	2	0	EE-234	Data Structures and Algorithms	2	1
ME-100L	Workshop Practice	0	1	HU-1xx	International Language	0	1
				QT-201	Translation of the Holy Quran - II	1	0
Semester 5				Semester 6			
Course No	Subject (Pre--requisites)	Credit Hours		Course No	Subject (Pre--requisites)	Credit Hours	
		Th	Pr			Th	Pr
EE-273	Microprocessor Systems	3	1	EE-312 / EE-439	Power Electronics*/Introduction to Machine Learning	3	0
EE-356	Power Transmission, Distribution and Utilization	3	0	EE-451 / EE-384	Power System Analysis and Design/Digital Signal Processing	3	1
EE-322	Analog and Digital Communications	3	1	EE-452 / EE-475/EE-486	Renewable Electrical Energy Systems / Computer Architecture* / Microwave and Antenna Engineering*	3	0
EE-384	Electromagnetics and Its Applications	3	0	EE-340	Control Systems	3	1
XYZ	Non-Engineering Elective	3	0	QT-301	Translation of the Holy Quran - III	1	0
				MGT-428	Professional Ethics	3	0
Semester 7				Semester 8			
Course No	Subject (Pre--requisites)	Credit Hours		Course No	Subject (Pre--requisites)	Credit Hours	
		Th	Pr			Th	Pr
EE-453 / EE-432	Power System Operation and Control/Computer Networks	3	1	EE-450/EE-431/EE-411/ EE-419	High Voltage Engineering/Operating System/Industrial Control Systems/Electrical Instruments and Measurements	3	1
EE-454 / EE-476	Power System Protection/Introduction to VLSI Systems	3	1	EE-456 / EE-425 / EE-414	Introduction to Smart Grids/Wireless Communication*/Integrated Electronic Circuits*	3	0
IS-201	Islamic and Pakistan Studies-II/Ethics	3	0	MGT	Management Elective II	3	0
MGT	Management Elective I	3	0	QT-401	Translation of the Holy Quran - IV	1	0
EE-499a	Project (Phase-I)	0	3	EE-499b	Project (Phase II)	0	3



DEPARTMENT OF COMPUTER SCIENCE

Dean

Prof. Dr. Naveed Ramzan

Chairman

Prof. Dr. Muhammad Shoaib

Professors

Dr. Shazia Arshad
Dr. Usman Ghani Khan
Dr. Muhammad Aslam

Associate Professors

Dr. Muhammad Junaid Arshad
Dr. Tauqir Ahmad
Dr. Amjad Farooq
Dr. Muhammad Awais Hassan

Assistant Professors

Dr. Talha Waheed
Dr. Syed Khaldoon Khurshid
Dr. Amna Zafar
Dr. Sadaf Hina
Dr. Ayesha Altaf
Dr. Faiza Iqbal

Lecturers

Mr. Atif Hussain
Mr. Samyan Wahla
Ms. Farheen Ramzan
Ms. Abqa Javed
Ms. Maida Shahid
Mr. Nazeef Ul Haq
Mr. Muhammad Laeeq uz Zaman Khan Niazi
Mr. Syed Tehseen ul Hasan Shah
Mr. Waqas Ali

Introduction

The Department of Computer Science is one of the prominent and oldest centers of computer education in the country. Its history dates back to 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 computing system that was equipped with a disk drive, monitor and printer. 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 was started in 1976. The course was upgraded to M.Sc. Computer Science in 1978, that was the first graduate program of the country in computer science. The computer center became an independent Department of Computer Science in 1991. A four years degree program, B.Sc. (Hons.) Computer Science, was introduced by the Department in 1999. Since September 2003 the department renamed the degree as B.Sc. Computer Science. The department also offers graduate degree

of M.S. Computer Science since 2003, whereas Ph.D. Computer Science program was launched in 2002. (The details about these programs are available in graduate prospectus of UET.) The Department holds an endowment chair given by Sultan of Oman, His Majesty Sultan Qaboos Bin Said-Al-Said.

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

The department is offering 4 years B.Sc. Computer Science program where students can opt for general CS electives or do specialization in Data Science, Artificial Intelligence, or Cyber Security. The B.Sc. Computer Science 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.

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 a 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.

Department's computing facilities are linked with UET Research Center, Main Library and other teaching departments through a fiber optic backbone. Multimedia projectors are installed 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.



B.Sc. Computer Science

Year 1							
Semester 1				Semester 2			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Prt			Th	Prt
CS-161	Programming Fundamentals	3	1	CS-162	Object Oriented Programming (CS-161)	3	1
CS-102	Introduction to Computing	3	1	CMPE-222	Digital Logic Design (PHY-111)	3	1
HU-102	Functional English	3	0	HU-240	Psychology	3	0
MA-123	Calculus	3	0	HU-111	Communication Skills (Lab)	0	1
PHY-111	Applied Physics	2	1	MA-224	Multivariate Calculus (MA-123)	3	0
ME-100L	Workshop Practice	0	1	MA-343	Applied Probability & Statistics	3	0
				QT-101	Translation of the Holy Quran	1	0
Year 2							
Semester 3				Semester 4			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Prt			Th	Prt
CS-261	Data Structures and Algorithms (CS-162)	3	1	CS-262	Database Systems (CS-261)	3	1
HU-221	Technical writing and Presentation Skills	3	0	CS-263	Operating Systems (CS-261)	3	1
CS-271	Computer Organization and Assembly Language (CMPE-222, CS-161)	3	1	MA-228	Differential Equations (MA-224)	3	0
MA-234	Linear Algebra	3	0	CS-272	Design and Analysis of Algorithms (CS-261)	3	0
CS-270	Discrete Mathematics	3	0	CS-273	Theory of Automata (CS-270)	3	0
				QT-201	Translation of the Holy Quran	1	0
Year 3							
Semester 5				Semester 6			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Prt			Th	Prt
CS-364	Information Security (CS-270)	3	0	CS-373	Computer Networks (CS-263)	3	1
CS-371	Artificial Intelligence (CS-261)	3	1	CS-39x	Computer Science Elective-2	3	0
CS-301	Professional Practices in Software Development	3	0	CS-39x	Computer Science Elective-3	3	0
CS-39x	Computer Science Elective-1	3	0	CS-380	Graph Theory (CS-270)	3	0
CS-165	Software Engineering	3	1	CS-372	Parallel and Distributed Computing (CS-263)	3	0
				QT-301	Translation of the Holy Quran	1	0
Year 4							
Semester 7				Semester 8			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Prt			Th	Prt
CS-465	Final Year Project-I	0	3	CS-466	Final Year Project-II (CS-465)	0	3
CS-471	Compiler Construction (CS-261, CS-273)	3	1	MGT-414	Entrepreneurship & Business Management	3	0
CS-49x	Computer Science Elective-4	3	0	IS-201	Islamic & Pakistan Studies-II	3	0
IS-101	Islamic & Pakistan Studies-I	3	0	HU-xxx	International Language	0	0
CS-49x	Computer Science Elective-5	3	0	MGT-424	Leadership Strategies	3	0
				QT-401	Translation of the Holy Quran	1	0

Elective Courses (3-0, Cr Hrs, if not specified)

Course No	Subject
CS-351	Computer Graphics
CS-353	Management Information Systems
CS-381	Computer Architecture
CS-382	Operations Research
CS-383	Simulation and Modelling
CS-386	Database Administration
CS-387	Database Performance & Optimization
CS-388	Database Backup & Recovery
CS-389	Distributed Databases
CS-390	System Programming
CS-391	Web Technologies
CS-392	Game Development
CS-393	Open Source Software Development
CS-394	Mobile Application Development
CS-396	Object Oriented Analysis and Design
CS-397	Design Patterns
CS-445	Programming Languages
CS-481	Real Time Systems
CS-487	Ethical Hacking
CS-488	Information Retrieval
CS-491	Wireless Networks
CS-492	Internetworking with Unix TCP/IP
CS-493	Enterprise Application Development
CS-494	E-Commerce
CS-495	Software Design & Architecture
CS-496	Linux Kernel Implementation
CS-497	Intro to Program Analysis
CS-498	Formal Methods
CS-581	Graph Databases
CS-582	Web semantics
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
SWE-211	Software Requirements Engineering
SWE-221	Human Computer Interaction
SWE-325	UX/UI Design
SWE-331	Software Quality Engineering
SWE-332	Software Measurement & Metrics
SWE-441	Software Project Management
SWE-442	Software Re-Engineering
CS-360	Fundamentals of Cyber Security (Cyber Security Elective)
CS-361	Network Security (Cyber Security Elective)
CS-362	Digital Forensics (Cyber Security Elective)
CS-363	Information Assurance (Cyber Security Elective)
CS-365	Malware Analysis and Development (Cyber Security Elective)

CS-366	Penetration Testing (Cyber Security Elective)
CS-367	Secure Software Design and Development (Cyber Security Elective)
CS-368	Vulnerability Assessment and Reverse Engineering (Cyber Security Elective)
CS-384	Introduction to Data Science (Data Science Elective)
CS-385	Internet of Things (Data Science Elective)
CS-399	Statistics for Data Science (Data Science Elective)
CS-482	Big Data Analytics (Data Science Elective)
CS-483	Cloud Computing (Data Science Elective)
CS-484	Data Warehousing and Business Intelligence (Data Science Elective)
CS-496	Data Visualization (Data Science Elective)
CS-354	Natural Language Processing (AI Elective)
CS-355	Data Mining (2-1) (Data Science Elective, AI Elective)
CS-356	Programming for AI (2-1) (AI Elective)
CS-357	Knowledge Representation and Reasoning (AI Elective)
CS-358	Philosophical Foundations of AI (AI Elective)
CS-450	Agent Based Modeling (AI Elective)
CS-451	Introduction to Bioinformatics (2-1) (AI Elective)
CS-452	Introduction to Deep Learning (AI Elective)
CS-485	Computer Vision and Image Processing (2-1) (AI Elective)
CS-489	Machine Learning (2-1) (AI Elective)
CS-490	Soft Computing (AI Elective)





DEPARTMENT OF COMPUTER ENGINEERING

Dean Prof. Dr. Naveed Ramzan	Associate Professors Dr. Yasir Saleem Dr. Muhammad Faisal Hayat	Lecturers Ms. Sahar Waqar
Chairman Prof. Dr. Ali Hammad Akbar	Assistant Professors Dr. Tania Habib Dr. Asim Rehmat Dr. Fareed Ud Din Mehmood Jafri Dr. Beenish Ayesha Akram Ms. Hina Khalid Ms. Ayesha Shafqat	Teaching Fellow Mr. Mudasir Dilawar Mr. Raja Muzammil Muneer Ms. Bakhtawar BintAmjad
Professor Emeritus Dr. Mohammad Ali Maud		
Professors Dr. Muhammad Shahbaz Dr. Ali Hammad Akbar		

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 Sales Force. 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.

Courses of Study

- a) 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

Year 1			
Semester 1			
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
Year 2			
Semester 3			
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
Semester 4			
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
Year 3			
Semester 5			
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
Semester 6			
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
Year 4			
Semester 7			
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
Semester 8			
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



DEPARTMENT OF MECHANICAL ENGINEERING

Dean

Prof. Dr. Nadeem Ahmad Mufti

Chairman

Prof. Dr. Nasir Hayat

Professor Emeritus

Dilshad Hussain

Professors

Dr. Tauseef Aized
Dr. Asad Naeem Shah
Dr. Asif Mahmood Qureshi
Dr. Amjad Hussain
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

Mr. M. Usman

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

- B.Sc. Mechanical Engineering
- B.Sc. Automotive Engineering
- M.Sc. Mechanical Design Engineering
- M.Sc. Thermal Power Engineering
- M.Sc. Automotive Engineering
- M.Sc. Renewable Energy Systems Engineering
- 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.

B.Sc. Mechanical Engineering

Year 1							
Semester 1				Semester 1			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
HU 111 & HU 111	Communication Skills	1	1	IS 101	Islamic and Pak Studies-I	3	0
LMA 113	Calculus and Analytic Geometry	3	0	ME 122 & Me122	Engineering Mechanics	3	1
PHY 119	Engineering Physics	2	0	LCE 101 & CS 101	Computer Programming for Engineers	1	1
CS 101 & CS 101	Computing Fundamentals for Engineers	1	1	LHU 121 & HU 121	Technical Writing	1	1
LME 111 & ME 111	Thermodynamics-I	3	1	LMA 225	Differential Equations and Transforms	3	0
LME 121 & 121	Engineering Graphics and Drawing	1	1	EE 101	Electrical Engineering and Electronics	2	0
LME-131	Materials and Manufacturing -I	3	0	ME 100	Workshop Practice	0	1
				LQT-101	Translation of Holy Quran-I	1	0
Year 2							
Semester 3				Semester 4			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
IS 201	Islamic and Pakistan Studies -II	3	0	MGT 410	Engineering Project Management	2	0
ME 231 & Me231	Materials and Manufacturing – II (ME 131)	2	1	ME 212 & ME 212	Thermodynamics-II (ME 111)	3	1
LME 251	Computer Aided Drawing	0	1	LME 213 & ME 213	Fluid Mechanics-II (ME 211)	3	1
LME 221 & ME 221	Mechanics of Materials-I (ME 122)	3	1	LME 222 & 222	Mechanics of Materials-II (ME 221)	2	1
LME 211 & Me211	Fluid Mechanics-I	3	1	LMA-241	Applied Engineering Statistics	2	0
LQT-201	Translation of Holy Quran-II	1	0	MGT 413 & MGT 413L	Engineering Entrepreneurship	1	1
HU-100	Languages	0	0				
Year 3							
Semester 5				Semester 6			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
ME 321 & ME 321	Mechanics of Machines (ME 122)	3	1	ME 342 & ME 342	Robotics and Automation (ME 341)	2	1
LME 311 & ME 311	Heat and Mass Transfer (ME 213)	3	1	LME 381 & 381	Engineering Data Analytics & AI	2	1
LME 341	Instrumentation and Control	2	0	LME 323	Machine Design II (ME 222)	2	0
ME 322M	Machine Design -I (ME 222)	3	0	ME 352	Computer Aided Design-II	0	1
E-351	Computer Aided Design -I	0	1	LME-332	Metrology and Quality Assurance (MA 241)	2	0
LME 371	Health Safety & Industrial Environment	2	0	ME 361	Energy Resources and Utilization (MA 311)	2	0
ME-399	Semester Design Project	0	1	ME 351& ME 351	Computational Engineering-I	2	1
LQT-301	Translation of Holy Quran-III	1	0	LMGT-316B	Professional Ethics in Engineering Practice	2	0
Year 4							
Semester 7				Semester 8			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
ME 461 & ME 461	IC Engine (ME 212)	2	1	ME 463	Power Plants Engineering (ME 212)	2	0
LMGT 160	Engineering Economics	2	0	ME-464	Energy & Power Systems	0	1
ME 451 & ME 451	Computational Engineering-II (ME 351)	2	1	LME 411 & ME 411	Refrigeration and Air Conditioning (ME 311)	2	1
LME 462	Energy Conservation and Management (ME 361)	2	0	LME 421	Mechanical Vibration (ME 321)	2	0
ME 496	FYDP-I	0	3	MGT 312	Supply Chain Management	2	0
LME 4	Elective-I	2	0	ME 497	FYDP- II (ME 496)	0	3
QT-401	Translation of Holy Quran-IV	1	0	LME 4--	Elective-II	2	0
ME 471	Production and Operations Management	2	0				

B.Sc. Automotive Engineering

Semester 1				Semester 1			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
HU 111 & HU 111	Communication Skills	1	1	IS 101	Islamic and Pak Studies-I	3	0
LMA 113	Calculus and Analytic Geometry	3	0	ME 122 & Me122	Engineering Mechanics	3	1
PHY 119	Engineering Physics	2	0	LCE 101 & CS 101	Computer Programming for Engineers	1	1
CS 101 & CS 101	Computing Fundamentals for Engineers	1	1	LHU 121 & HU 121	Technical Writing	1	1
LME 111 & ME 111	Thermodynamics-I	3	1	LMA 225	Differential Equations and Transforms	3	0
LME 121 & 121	Engineering Graphics and Drawing	1	1	EE 101	Electrical Engineering and Electronics	2	0
LME-131	Materials and Manufacturing -I	3	0	ME 100	Workshop Practice	0	1
				LQT-101	Translation of Holy Quran-I	1	0
Semester 3				Semester 4			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
IS 201	Islamic and Pakistan Studies -II	3	0	AM-223	Vehicle Dynamics (ME-125)	2	0
ME 231 & Me231	Materials and Manufacturing – II (ME 131)	2	1	MA-242	Engineering Statistics	3	0
LME 251	Computer Aided Drawing	0	1	ME-212 & ME-212	Thermodynamics-II (ME-111)	3	1
LME 221 & ME 221	Mechanics of Materials-I (ME 122)	3	1	LAM-231	Project Management and Engineering Economics2	2	0
LME 211 & Me211	Fluid Mechanics-I	3	1	ME-222 & ME-222	Mechanics of Materials-II (ME-221)	3	1
LQT-201	Translation of Holy Quran-II	1	0	LHU-221	Technical Writing & Presentation Skills	3	0
HU-100	Languages	0	0				
Semester 5				Semester 6			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
ME-312 & ME-312	Heat and Mass Transfer (ME-212)	3	1	AM-326 & AM-326	Vehicle Structure Design1,2 (AM-324)	2	1
LME-331 & ME-331	Machine Tools and Machining (ME-331)	2	1	LAM-325	Design for Manufacturing1 (ME-331)	3	0
LMA-345 & MA-345	Numerical Methods in Computing	2	1	AM-331	Quality & Reliability Engineering1,2 (MA-242)	3	0
LAM-313	Fuels and Combustion (ME-212)	2	0	AM-315 & AM-315	Vehicle Air Conditioning (ME-312)	2	1
AM-314	Vehicle Tribology (AM-211)	2	0	LAM-316 & AM-316	Computational Fluid Dynamics (AM-211, AM-324L)	2	1
AM-324 & AM-324L	Design of Machine Elements (ME-222)	3	1	LQT-301	Translation of Holy Quran-III (QT-201)	1	0
Semester 7				Semester 8			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
ME-451 & ME-451	Finite Element Analysis (MA-345)	2	1	AM-423	Vibration & Noise Control (ME-125)	2	0
LME-413 & ME-413	IC Engines (AM-313)	2	1	AM-442	Intelligent vehicle (AM-441)	2	0
LAM-441 & AM-441	Vehicle Instrumentations and Control Systems (EE-201 ,MA-242)	3	1	AM-431	Computer Integrated Manufacturing (ME-331, CS 102)	2	0
LME-431	Production and Operations Management (AM-231)	2	0	AM-414	Hybrid Vehicles (ME-413)	2	0
AM-498	Project I	0	3	AM-499	Project II (AM-498L)	0	3
LME 4--	Elective I	2	0	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

Dr. Sarmad Ali Khan

Dr. Sadaf Zahoor

Dr. Muhammad Salman Habib

Chairman

Prof. Dr. Muhammad Qaiser Saleem

Assistant Professors

Dr. Rakhshanda Naveed

Dr. Muhammad Faisal Shahzad

Mr. Bilal Arshad

Dr. Syed Farhan Raza Rizvi

Lecturers

Ms. Kiran Mughal

Dr. Sana Ehsan

Mr. Adeel Shehzad

Mr. Omer Asghar

Associate Professors

Dr. Kashif Ishfaq

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.
 - Engineering Management
 - 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

- OBE Core Committee
- Quality Control Cell
- Labs Committee
- Alumni, Internships, Final Year Projects & Industrial Linkages Cell
- Industrial Advisory Board
- Departmental Upkeep Committee

Laboratories & Infrastructure

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

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

Year 1					
Semester 1				Semester 2	
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)
		Th	Pr		
EE-199	Basic Electrical and Electronics Engineering	3	1	IS-101/HU-101	Islamic & Pak Studies-I/Ethics & Pak Studies-I
MA-111	Applied Mathematics-I	3	0	MA-112	Applied Mathematics-II (MA-111)
IME-111	Industrial Materials	2	1	IME-121	Manufacturing Processes-I (IME-111, ME-100L)
CY-181	Industrial Chemistry-I	2	1	IME-161	Engineering Drawing and Graphics
ME-100L	Workshop practice	0	1	CS-103	Introduction to Computer Programming for Data Science
IME-131	Engineering Mechanics	3	1	HU-111L	Communication Skill
				HU-003	International Language
				QT-101	Translation of Holy Quran-I
Year 2					
Semester 3				Semester 4	
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)
		Th	Pr		
EE-215	Basic Industrial Electronics (EE-199)	2	1	IS-201/HU-201	Islamic and Pak Studies-II/Ethics & Pak Studies-II
IME-232	Mechanics of Materials (IME-131)	3	1	MA-244	Probability and Statistics
IME-241	Thermo-Fluids	3	1	IME-222	Manufacturing Processes-II (IME-121)
IME-251	Social and Ethical Aspects in Engineering	2	0	IME-262	Machine Design and CAD (IME-161, IME-232)
IME-252	Industrial Safety and Environment	2	0	HU-221	Technical writing and presentation skills
IME-233	Mechanics of Machines	2	1	QT-201	Translation of Holy Quran-II
Year 3					
Semester 5				Semester 6	
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)
		Th	Pr		
IME-363	Instrumentation and Control (MA-112, EE-215)	3	1	IME-354	Production Planning & Control
MA-345	Numerical Methods in Computing (MA-111, CS-101)	3	1	IME-364	CAD/CAM (IME-222, IME-262)
CS-384	Introduction to Data Sciences	2	1	IME-381	Metrology and Quality Control (MA-244)
IME-353	Human Factor Engineering	3	1	IME-372	Optimization Techniques for Engineers
IME-371	Engineering Economics	2	0	MGT-317	Project Management in Engineering
				QT-301	Translation of Holy Quran-III
Year 4					
Semester 7				Semester 8	
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)
		Th	Pr		
IME-xxx	Elective-I	3	1	IME-xxx	Elective-III
IME-465	Production Tooling Design (IME 262)	3	1	IME-xxx	Elective-IV
MCT-434	Industrial Automation	2	1	IME-455	Production and Operations Management
IME-xxx	Elective-II	3	0	IME-456	Total Quality Management
IME-401L	Project-I	0	3	IME-402L	Project-II (IME-401L)
				QT-401	Translation of Holy Quran-IV



DEPARTMENT OF MECHATRONICS & CONTROL ENGINEERING

Dean

Prof. Dr. Nadeem Ahmad Mufti

Dr. Mohsin Rizwan

Dr. Muhammad Ahsan

Dr. Syed Abbas Zilqurnain Naqvi

Chairman

Dr. Ali Raza

Assistant Professors

Dr. Ayisha Nayyar

Ms. Aisha Shoaib

Dr. Maria Akram

Ms. Maliha Saleem Bakhshi

Mr. Muhammad Ahsan Naeem

Lecturers

Ms. Amina Younas

Mr. Muhammad Rzi Abbas

Mr. Misbah-ur-Rehman

Ms. Qurat Ul Ain Masud

Mr. Shujat Ali

Associate Professors

Dr. Ali Raza

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, actuators/sensors, 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 321 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 till 2022, eighteen batches are serving the industry. Our graduates are serving in mechanical, electronic, instrumentation, automation, oil and gas, aviation and other sectors.

For more details, one can visit the official website at: <https://mce.uet.edu.pk/>

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 developing innovative technologies.

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 Skillfully 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.

PEO-04: Will contribute to diversity, socioeconomic growth and sustainable development.

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

Department also shares some of the labs 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. The degree program has a compulsory internship component.

Student Advisory Services

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

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 Lab

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

Industrial Automation Lab

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

Human-Centered Robotics Lab of The NCRA

Human-Centered Robotics Lab 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 exoskeletons and active prostheses. Recently, the HCR team has introduced its first industrial-grade robotic arm to the Pakistani industry.

IHYA Lab For Mechatronics Research In Resuscitation Sciences

This research lab has been recently established by the department of Mechatronics and Control Engineering in collaboration with Hamad Medical Corporation Qatar. The Lab aims to develop smart and marketable mechatronic devices which aid in the resuscitation practices, in and out of hospital settings, thus saving precious lives of the patients. It also aims to become an innovation hub in the domain of resuscitation sciences. Currently, the major focus of the lab is on the development of newer CPR technologies and associated biomedical devices.

B.Sc. Mechatronics and Control Engineering

Year 1			
Semester 1			
Course No	Subject	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 2			
Course No	Subject	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
Year 2			
Semester 3			
Course No	Subject	Credit Hours	
		Th	Pr
HU-1xx	International Language	0	0
MA-129	Vector and Complex Analysis	3	0
MCT-211	Engineering Dynamics (MCT-115)	3	0
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 4			
Course No	Subject	Credit Hours	
		Th	Pr
MA-234	Linear Algebra	3	0
MCT-238	Embedded Systems (MCT-241, MCT-122, MCT-242)	2	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
Year 3			
Semester 5			
Course No	Subject	Credit Hours	
		Th	Pr
MA-240	Numerical Analysis (MCT-242)	2	1
MCT-311	Design of Machine Elements and CAD/CAM (MCT-215)	3	1
MCT-313	Hydraulics and Pneumatics	3	1
MCT-331	Modeling and Simulation (MA-225)	3	1
MCT-338	Embedded Systems-II (MCT-238)	1	1
Semester 6			
Course No	Subject	Credit Hours	
		Th	Pr
MCT-304	Probability and Statistics (MCT-242)	2	1
MCT-333	Control Systems – I (MCT-331)	3	1
MCT-335	Instrumentation and Measurements (MCT-122)	2	1
MCT-342	Signal and Systems (MA-225)	2	1
MCT-352	Robotics (MA-234)	3	1
QT-301	Translation of the Holy Quran-III	1	0
Year 4			
Semester 7			
Course No	Subject	Credit Hours	
		Th	Pr
MCT-402	Product Design	2	1
MCT-434	Industrial Automation	2	1
MCT-444	Control System-II (MCT-333)	3	0
MCT-498	Final Project- I	0	3
MCT-4xx	Elective-I	2	1
MGT-413	Entrepreneurship	3	0
Semester 8			
Course No	Subject	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
MGT-211	Principles of Management	3	0
QT-401	Translation of the Holy Quran - IV	1	0

Elective Subjects	
MCT-412	Condition Monitoring
MCT-415	Mechanical Vibrations
MCT-421	Digital Signal Processing (MCT-342)
MCT-422	Power Electronics (MCT-122)
MCT-432	Digital Control Systems (MCT-333)
MCT-433	Estimation and Filtering (MCT-333)
MCT-452	Intelligent Systems (MCT-242)
MCT-453	Machine Vision (MCT-243)
MCT-454	Mobile Robotics (MCT-351)
MCT-455	Wearable Robotics
MCT-456	Internet of Things
MCT-457	Biomedical Devices
MCT-458	Home Centered Robotics
MCT-491	Special Topics in Mechatronics



DEPARTMENT OF CIVIL ENGINEERING

Dean

Prof. Dr. Habib-ur-Rehman

Chairman

Prof. Dr. Khalid Farooq

Professor Emeritus

Dr. Zia ud Din Mian

Professors

Dr. Muhammad Ashiq

Dr. Noor Muhammad Khan

Dr. Asad Ullah Qazi

Dr. Asif Hameed

Dr. Muhammad Burhan Sharif

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. 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 enrolment 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.

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

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

Year 1				
Semester 1				Semester 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 3				Semester 4
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	
S/HU-201	Islamic & Pak Studies/Ethics	3	0	
MA-240	Numerical Analysis	2	1	
Semester 5				Semester 6
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 7				Semester 8
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	
Year 2				
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	
Year 3				
Semester 3				
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	
Year 4				
Semester 4				
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	
Year 5				
Semester 5				
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

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

Dr. Nasir Javed

Dr. Ahmed Riaz

Lecturers

Ms. Anam Fatima

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. Presently the merit position of the Architectural Engineering program is at 7th out of nineteen undergraduate programs at UET Lahore. An Architectural Engineer having background of multidisciplinary knowledge on various areas of buildings has a greater opportunity to work according to his/her aptitude. 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, Materials 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 reputation 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

2

Year 1									
Semester 1				Semester 2					
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours			
		Th	Pr			Th	Pr		
AE-101	Surveying	2	1	HU-111L	Communication Skills	0	1		
CS-103	Computing Fundamentals	2	1	AE-151	Occupational Health and Safety	2	0		
IS-101	Islamic and Pak Studies-I	3	0	AE-132	Mechanics of Materials-I	3	1		
MA-123	Calculus	3	0	PHY-102	Physics for Architectural Engineers	2	1		
AE-114	Construction Materials	2	1	ME-100WL	Workshop Practice	0	1		
AE-145L	Architectural & Engineering Drawing	0	2	AE-144	History of Building Technology	2	0		
QT-101	Translation of the Holy Quran-I	1	0	AE-143L	Computer Aided Drawing	0	2		
Year 2									
Semester 3				Semester 4					
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours			
		Th	Pr			Th	Pr		
IS-201	Islamic And Pak Studies-II	3	0	MA-234	Linear Algebra	3	0		
MA-228	Differential Equation	3	0	AE-225	Renewable Energy Systems for Buildings	1	1		
AE-235	Elementary Structural Analysis	3	0	AE-234	Mechanics of Materials-II	3	1		
AE-243L	Architectural Design-I	0	2	AE-214	Construction Engineering and Building Information Modelling	3	1		
AE-220	Environmental Control Systems	2	1	AE-244L	Architectural Design-II	0	3		
AE-201	Computer Programming and Numerical Analysis	1	1						
QT-201	Translation of the Holy Quran-II	1	0						
HU-204	Foreign Language	0	1						
Year 3									
Semester 5				Semester 6					
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours			
		Th	Pr			Th	Pr		
AE-301	Water Supply & Sanitation System for Buildings	3	1	HU-221	Technical Writing and Presentation Skills	3	0		
AE-327	Electrical Systems for Buildings	2	1	AE-328	Mechanical Systems for Buildings	2	1		
AE-333	Design of Concrete Structures-I	3	1	AE-334	Design of Concrete Structures -II	3	1		
AE-343L	BIM in Architectural Design	0	2	AE-364	Foundation Engineering	3	1		
AE-363	Geotechnical Engineering	2	1	AE-351	Estimation & Quantity Surveying	2	1		
QT-301	Translation of the Holy Quran-III	1	0						
Year 4									
Semester 7				Semester 8					
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours			
		Th	Pr			Th	Pr		
AE-435	Computer Aided Structural Analysis	3	1	AE-437	Structural Dynamics & EQ Engineering	3	1		
AE-436	Design of Steel Structures	3	1	AE-442L	Integrated Building Design-II	0	2		
AE-441L	Integrated Building Design-I	0	2	MGT-413	Entrepreneurship for Engineers	1	0		
AE-453	Construction Management	3	1	AE-454	Professional Ethics	2	0		
AE-475L	Final Year Design Project	0	2	AE-4xx	Elective	2	0		
QT-401	Translation of the Holy Quran-IV	1	0	AE-476L	Final Year Design Project	0	4		

Course No	Subject (Elective Subjects)	Credit Hours	
		Th	Pr
AE-444	Zero Energy Buildings	2	0
AE-403	Research Methodology	2	0
AE-415	Sustainable and Energy Efficient Building Materials	2	0
AE-455	Procurement Management	2	0
AE-439	Structural Systems for High Rise Buildings	2	0



DEPARTMENT OF TRANSPORTATION ENGINEERING & MANAGEMENT

Dean

Prof. Dr. Habib-ur-Rehman

Professors

Dr. Zia-ur-Rehman

Dr. Saadia Tabassum

Dr. Abdur Rahim

Chairman

Prof. Dr. Ammad Hassan Khan

Assistant Professors

Hina Saleemi

Dr. Amna Chaudhry

Bilal Zia Malik

Mujasim Ali Rizvi

Dr. Izza Anwar

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 pipe ways. 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:

- a) B.Sc. Transportation Engineering
- b) M.Sc. Transportation Engineering
- c) M.Sc. Transportation Informatics
- d) 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.

Laboratories and Other Facilities

The Department has various dedicated laboratories that include Geo-materials, Transportation Materials Improvement, Transportation Computer Aided Design, Asphalt and Concrete Mix Design, Traffic Engineering and is in a process of establishing Railway Engineering, and Geomatics Engineering Labs. The Department is using latest state-of-the-art software and tools for teaching and training purposes. The Department has a well-stocked library with a large number of latest relevant books, journals and research publications.

Transportation engineering graduates of this program have sufficient opportunities of getting jobs in various government/private departments including (but not limited to), Lahore Development Authority (LDA), Traffic Engineering & Transport Planning Agency (TEPA) under Lahore Development Authority (LDA), Punjab Mass Transit Authority (PMA), Urban Unit, National Engineering Services Pakistan (NESPAK), Associated Consultant Engineers (ACE), National Development Consultants (NDC), SKB Engineering & Construction, Frontier Welfare Organization (FWO), National Logistics Cell (NLC), National Highway Authority (NHA), Multan Development Authority (MDA) and many more.

B.Sc. Transportation Engineering

Year 1							
Semester 1				Semester 1			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
MA-111	Applied Mathematics I	3	0	MA - 112	Applied Mathematics II	3	0
CE-107	Technical Drawing	2	2	CS-101	Computing Fundamentals	2	1
TE-141	Introduction To Transportation Engineering	3	0	CE - 101	Elementary Surveying	3	1
EE-199	Applied Electricity	3	1	PHY - 122	Basic Mechanics	2	1
IS-101	Islamic & Pak Studies - I	3	0	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
Year 2							
Semester 3				Semester 4			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
TE - 242	Construction Materials and Machinery	2	1	TE - 211	Transportation Engineering Practice	2	1
CE - 203	Fluid Mechanics	3	1	TE - 244	Geotechnical Engineering-I	3	1
AIS - 201	Islamic & Pak Studies-II	3	0	CE-213	Structural Analysis	3	0
CE - 212	Mechanics of Materials	3	1	MA-244	Probability and Statistics	2	1
CE - 201	Surveying and GIS-RS Application	3	1	HU-221	Technical Writing and Presentation Skills	3	0
				QT-201	Translation of Holy Quran	1	0
Year 3							
Semester 5				Semester 6			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
TE - 243	Automotive Engineering	2	1	TE-302	Organizational Behavior	3	0
CE - 332	Engineering Hydrology	2	1	TE - 352	Traffic Engineering-I	2	1
TE - 351	Geotechnical Engineering II	3	1	CE - 314	Plain And Reinforced Concrete	3	1
TE - 361	Highway Engineering	3	1	ATE - 353	Bridge Engineering	2	1
eo - E - 350	Engineering Geology	3	1	TE - 354	Railway Engineering	2	1
				QT-301	Translation of Holy Quran	1	0
Year 4							
Semester 7				Semester 8			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
TE - 461	Pavement Design And Construction	2	1	TE - 465	Airport Engineering	3	0
ENE - 407	Environmental Impact Assessment And Management	3	0	TE - 466	Geomatics Engineering And Transportation	3	1
TE - 462	Harbour And Dock Engineering	2	0	TE - 467	Asset Management	3	1
TE - 463	Transportation Planning And Economics	3	0	TE - 468	Traffic Engineering-II	2	0
TE - 464	Tunnel Engineering	2	0	TE - 469	Pipeway Engineering	2	1
TE - 481	Project	0	3	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

Professor Emeritus

Dr. Javed Anwar Aziz

Director

Prof. Dr. Amir Ikhtlaq

Professors

Dr. Sajjad H. Shiekh

Associate Professors

Dr. Muhammad Umar Farooq

Dr. Muhammad Irfan Jalees

Dr. Mehwish Anis

Assistant Professors

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.

Institute Mission Statement

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., M.Phil., 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 Agencies (WASAs), Water and Power Development Authority (WAPDA), Lahore Waste Management Company (LWMC), The Urban Unit, Punjab, Environmental Protection Department (EPD), WWF Pakistan, NESPAK, Mott MacDonalds 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 has 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 excel in their professional careers by exhibiting analytical and soft skills along with latest tools usage.
- **PEO-03:** Graduates will spearhead the environmental projects, observe ethical and professional values while fulfilling the diverse needs of society.

B.Sc. Environmental Engineering**Year 1**

Semester 1				Semester 2			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
HU-111	Communication Skills	0	1	CS-103	Introduction of Computer Programming for Data Science	2	1
IS-101	I & P Studies/ E& P Studies-I	3	0	EnE-104	Environmental Chemistry	2	1
CE-101	Elementary Surveying	3	1	ME-100L	Workshop Practice	0	1
EnE-101	Introduction to Environmental Engineering	2	0	MA-116	Linear Algebra & Differential Equations	3	0
MA-115	Engineering Mathematics	3	0	EnE-103	Environmental Laws and Policies	2	0
				EnE-105	Ecological Management	2	0
				QT-101	Translation of Holy Quran I	1	0

Year 2

Semester 3				Semester 4			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
IS-201	I & P Studies/ E & P Studies-II	3	0	ChE-252	Environmental Health and Safety	3	0
EnE-201	Environmental Microbiology	2	1	HU-221	Technical Writing and Presentation Skills	3	0
CE-232	Fluid Mechanics	3	1	TEM-225	Transportation Engineering	2	1
CE-235	Soil Mechanics	3	1	ME-238	Thermodynamics	2	1
MA-242	Engineering Statistics	3	0	CE-240	Engineering drawings and CAD	1	2
QT-201	Translation of Holy Quran II	1	0	CS-260	Programming Fundamentals (CS-103)	2	1
				CE-210	Structural Systems	3	0

Year 3

Semester 5				Semester 6			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
CRP-301	Sustainable Urban Planning	2	0	EnE-326	Environmental Impact Assessment and Management	3	0
EnE-331	Water Supply and Wastewater Engineering	3	1	EnE-335	Principles of Water and Wastewater Treatment	3	1
EnE-312	Environmental Economics	2	0	ChE-320	Cleaner Production Techniques	2	0
EnE-323	Solid Waste Management	3	1	CE-345	Water Resources & Irrigation Engineering	3	0
EnE-324	Environmental Engineering Lab Techniques (EnE-104)	1	1	CE-346	Project Management and Construction Supervision	3	0
CE-333	Engineering Hydrology	2	1	MA-346	Numerical Methods	3	0
QT-301	Translation of Holy Quran III	1	0				

Year 4

Semester 7				Semester 8			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
EnE-431	Air Pollution Control and Climate Change	3	1	EnE-434	Water and Wastewater Treatment Plant Design (EnE-335)	3	1
EnE-432	Environmental Modeling	2	1	EnE-433	Industrial and Hazardous Waste Management	3	0
CRP-412	GIS and Remote Sensing (CE-101)	2	1	EnE-426	Wastewater Disposal and Reuse	2	0
ME-481	Energy Resources & Management	2	0	MGT-413	Entrepreneurship	3	0
EnE-404	Ethics and Interpersonal Skills	1	1	EnE-499	Final Year Project	0	3
QT-401	Translation of Holy Quran IV	1	0				
EnE-499	Final Year Project	0	3				



DEPARTMENT OF CHEMICAL ENGINEERING

Dean

Prof. Dr. –Ing. Naveed Ramzan

Chairperson

Prof. Dr. Saima Yasin

Professor Emeritus

Dr. Shahid Naveed

Professor on SNGPL Chair of Gas Engineering

Dr. Saima Yasin (Acting)

Professors

Dr. Hafiz Muhammad Zaheer Aslam

Associate Professors

Dr. M. Azam Saeed

Dr. Muhammad Faheem

Dr. Usman Ali

Dr. Umair Aslam

Dr. Farhan Javed

Assistant Professors

Mr. Qazi Zaka-ur-Rehman

Dr. Humayun Wali

Dr. Sidra Jabeen

Dr. Umer Afzal

Dr. Muhammad Wasim Tahir

Dr. Muhammad Asif Akhtar

Dr. Ayesha Irshad

Dr. Saira Bano

Dr. Hira Anjum

Dr. Muhammad Farhan

Lecturers

Mr. Rizwan Ali

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

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 thesis 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

Year 1							
Semester 1				Semester 2			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
ChE-101	Industrial Stoichiometry – I	3	0	ChE-108	Fluid Flow-I	3	0
CS-103	Introduction of Computer Programming for Data Science	2	1	ChE-104	Health and Safety at Workplace	2	0
CY-142	Physical and Analytical Chemistry	2	1	ChE-109	Chemical Process Industries	2	1
HU-111	Communication Skills	0	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-113	Calculus and Analytic Geometry	3	0	MA-118	Applied Mathematics and Statistics	3	0
ME-122L	Engineering Drawing	0	2	ME-100L	Workshop Practice	0	1
QT – 101	Translation of the Holy Qur'an -I	1	0	PHY-113	Applied Physics	2	1
Year 2							
Semester 3				Semester 4			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
ChE-201	Industrial Stoichiometry – II	3	0	ChE-208	Fluid Flow-II	2	1
ChE-203	Particle Technology	3	1	ChE-209	Process Heat Transfer	3	1
ChE-204	Chemical Engineering Thermodynamics – I	3	1	ChE-210	Separation processes-I	3	1
CY-221	Inorganic and Organic Chemistry	2	1	EE-140	Electrical Technology	2	1
HU-221L	Technical Writing and Presentation Skills	0	1	IS-201 or HU-201	Islamic and Pakistan Studies – II (Muslim students) or Ethics and Pakistan Studies – II (non-Muslim students)	3	0
MA-233L	Applied Mechanics	0	1				
QT – 201	Translation of the Holy Qur'an -II	1	0				
Year 3							
Semester 5				Semester 6			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
ChE-301	Chemical Reaction Engineering	3	1	ChE-313	Chemical Process Design & Economics	3	0
ChE-311	Engineering Materials	2	0	ChE-314	Chemical Engineering Mathematics	2	0
ChE-312	Unit Processes	2	1	ChE-310	Separation Processes-II	2	1
ChE-304	Chemical Engineering Thermodynamics – II	3	0	ChE-307	Transport Phenomena	3	0
MA-240	Numerical Analysis	2	1	ChE-308	Energy Engineering	3	1
MGT-413	Entrepreneurship	3	0	ChE-315L	Process Modeling and Simulation	0	2
				QT – 301	Translation of the Holy Qur'an -III	1	0
Year 4							
Semester 7				Semester 8			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
ChE-401	Chemical Reactor Design	2	0	ChE-406	Environmental Engineering	3	1
ChE-409	Chemical Process Equipment Design and Rating	3	0	ChE-432 to ChE-441	Elective-II	2	0
ChE-432 to ChE-441	Elective-I	2	0	ChE-421 to ChE-431	Elective-III	3	0
ChE-404	Instrumentation and Control	3	1	ChE-421 to ChE-431	Elective-IV	3	0
ChE-410	Engineering Management	2	0	ChE-412	Final Year Project – II	0	3
ChE-411	Final Year Project – I	0	3	QT – 401	Translation of the Holy Qur'an -IV	1	0



DEPARTMENT OF POLYMER ENGINEERING

Dean

Prof. Dr. Ing. Naveed Ramzan

Associate Professors

Dr. Atif Javaid

Dr. Farhan Saeed

Dr. Muhammad Sarfraz

Dr. Rabia Nazar

Dr. Umer Mahmood

Chairman

Prof. Dr. Asif Ali Qaiser

Assistant Professors

Dr. Yasir Qayyum Gill

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:

- B.Sc. Polymer Engineering
- M.Sc. Polymer and Process Engineering
- M.S. Polymer Science and Technology
- Ph.D. 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
- Research Laboratories
- Industrial Testing and Product Development Laboratories
- Process Engineering Laboratories

1. Undergraduate Teaching Laboratories

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

2. Research Laboratories

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

3. Industrial Testing & Product Development

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

4. Process Engineering Laboratories

Process Heat Transfer · Fluid Flow
Mass Transfer · Instrumentation & Control
Particle Technology
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 4th 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

Year 1				
Semester 1				Semester 1
Course No	Subject (Pre-requisites)	Credit Hours		
		Th	Pr	
PPE-107	Engineering Materials	3	0	PPE-108 & PPE-108L
HU-111	Communicational Skills	0	1	Fundamentals of Polymer Engineering
LCS-101	Computing Fundamentals	2	1	PPE-109
CY-161	Polymer Chemistry-I	2	1	Industrial Stoichiometry
MA-113	Calculus and Analytical Geometry	3	0	PPE-110 & PPE-110
IS-101	Islamic and Pakistan Studies I or HU 101 Ethics and Pakistan Studies-I	3	0	Particle Technology
QT-101	Translation of the Holy Qur'an-I	1	0	LMA-118
				Applied Mathematics & Statistics
				ME 100
				Workshop Practice
				LEE-101
				Applied Electricity
				3
				1
Year 2				
Semester 3				Semester 4
Course No	Subject (Pre-requisites)	Credit Hours		
		Th	Pr	
PPE-207 & PPE- 207L	Fluid Flow	3	1	PPE-211 & PPE-211L
PPE-208 & PPE- 208L	Polymer Structures & Synthesis (CY-161)	3	1	Heat Transfer
PPE-209	Chemical & Petrochemical Industries	3	0	PPE-212
PPE-210	Thermodynamics	3	0	Environmental Engineering & Process Safety
HU-221L	Technical Writing & Presentation Skills	0	1	PPE-213 & PPE-213L
QT-201	Translation of the Holy Qur'an-II	1	0	Polymer Processing Operations (PPE-108)
				PPE-215
				Engineering Economics
				PPE-214L
				Process Engineering Computing
				IS-201
				Islamic and Pakistan Studies II or HU 201
				Ethics and Pakistan Studies-II
				3
				0
Year 3				
Semester 5				Semester 6
Course No	Subject (Pre-requisites)	Credit Hours		
		Th	Pr	
PPE-313 & PPE-313L	Mass Transfer	3	1	PPE-318 & PPE-318L
PPE-314	Mechanical Properties of Polymers (PPE-108)	3	0	Polymer Analysis & Characterization (PPE-108)
PPE-315 & PPE-315	Polymer Reaction Engineering (PPE-208)	3	1	PPE-319 & PPE-319
PPE-316	Polymer Compounding & Blending (PPE-108)	3	0	Instrumentation & Control
PPE-317	Transport Phenomena	3	0	PPE-320
QT-301	Translation of the Holy Qur'an-III	1	0	Polymer Composites
				PPE-321
				Polymer Rheology
				PPE-322
				Total Quality Management
				3
				0
Year 4				
Semester 7				Semester 8
Course No	Subject (Pre-requisites)	Credit Hours		
		Th	Pr	
PPE-418	Entrepreneurial Management	3	0	PPE-414
PPE-416	Final Year Project-I (PPE-318)	0	3	Polymer Product Design (PPE-108)
PPE-413 & PPE-413	Process Plant Design (PPE- 207,211,313,315)	3	1	PPE-415 & PPE-415L
PPE-4XX	Elective-I	3	0	Polymer Processing Design & Simulation (PPE-213)
PPE-4XX	Elective-II	3	0	PPE-417
QT-401	Translation of the Holy Qur'an-IV	1	0	Final Year Project-II (PPE-416)
				PPE-4XX
				Elective-III
				PPE-4XX
				Elective-IV
				3
				0



DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Dean

Prof. Dr.-Ing Naveed Ramzan

Chairman

Prof. Dr.-Ing Furqan Ahmed

Professor

Dr. Muhammad Asif Rafiq

Associate Professors

Dr. Ather Ibrahim

Dr. Muhammad Zain UIAbdein

Assistant Professors

Dr. Ehsan UI Haq

Dr. Adnan Maqbool

Dr.-Ing. Muhammad Zubair

Lecturers

Engr. Amjad Ali

Dr.-Ing. Khushnuda Nur

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 (MME) was established in 1965 and it is the oldest department in this field in the country. Since its inception it has been providing the students with high quality education and training in the field of 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 around 200.

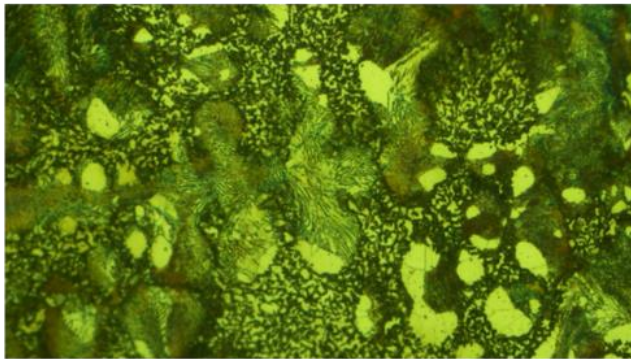
Program Educational Objectives (PEOs)

- **PEO-01:** Generate sustainable solutions to the industrial and analytical problems related to metallurgy and materials engineering using contemporary tools and techniques.
- **PEO-02:** Work in teams with effective leadership, entrepreneurial and communication skills.
- **PEO-03:** Achieve professional development while demonstrating socio-ethical responsibility.

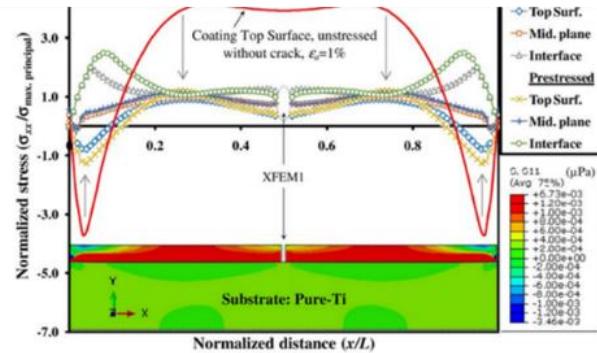
Courses of Study

The courses have been designed to produce graduates with strong understanding of science and engineering concepts of both metals and modern materials. The part of metallurgy covers courses ranging from relevant concepts of extractive, industrial, physical, mechanical metallurgy to the science and design of different modern metals and alloys used in engineering applications. Special emphasis is made on Foundry & Steel making practices, destructive and non-destructive testing, corrosion and control, heat treatment of metals/alloys, metal working and welding processes. In the area of materials engineering, courses are offered with the focus on material synthesis, processing, and their characterization. Students are taught the fundamentals and trained for the refinement, selection, processing and design of modern materials including polymers, ceramics, electronic materials, functional materials, bio-materials, nanomaterials, and composites. Students and the faculty of the MME department are also actively engaged in the modern-day research activities on structural and functional materials. Moreover, a close co-operation with local industry is maintained by the Department to build a strong academia-industry relationship.

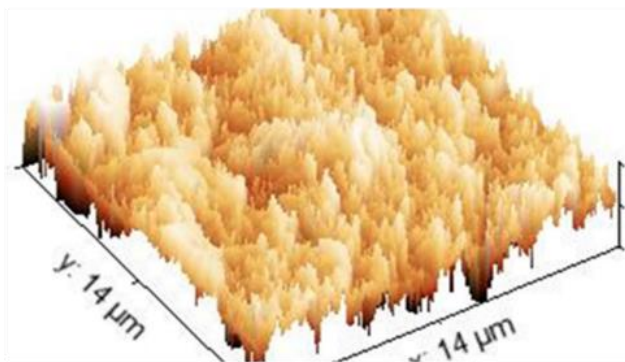
Microstructure of Gray Cast Iron



Simulation of mechanical response of diamond coated Ti and Ti-6Al-4V



Highlights of industry-academia co-operation and research activities



AFM image showing surface topography



Meeting of Industrial Advisory Board with Vice Chancellor and MME Faculty

In order to maintain a professional standard; exposure to an integrated knowledge based on mathematics, chemistry, physics and management sciences is also emphasized. Instructional tours to metallurgical & material development industries, and research organizations are frequently arranged to help the students to relate their theoretical knowledge with industrial practices. Educational / technical seminars are regularly arranged by inviting national and international speakers from the industrial and R&D sectors to keep the students up to data with the global challenges and 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. Extra focus is made on developing the soft and management skills of the students to make them well prepared for the future goals. The students are regularly engaged in several extra- and co-curricular activities to improve their interpersonal, soft, technical and management skills.



Workshops and Seminars for MME Students



Industrial Visits by MME Students

The department is equipped with the following laboratories:

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

The department has a library with over thirteen hundred handbooks, textbooks, and reference books for the 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. The department has a computer laboratory that is equipped with latest hardware to handle advance modeling, simulation and other technical 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. The engineers in this field can find jobs in sectors like defense, steel, foundry, glass and ceramics, polymer, automotive, metal working and fabrication, nuclear, construction, inspection and testing, oil and gas, corrosion and prevention etc. Our notable graduates are working in leading organizations like TWI, Bosch, P&G, Schlumberger, KRL, SNGPL, OGDCL, PAEC, NESCOM, PINSTECH, NDC, PMO, Descon, different Steel Mills, Foundries PCSIR, PSQCA, PITAC etc. Furthermore, especially in last few years, there is an increasing tendency among students to thrive for scholarships and every year several of our graduates secure well renowned scholarships including Erasmus Mundus, MAP, Marie Curie, DAAD, A*Star, full bright and many more. Our graduates are studying, serving, and leading in well reputed national and international universities like University of Cambridge, University of Oxford, University of Bristol, National University of Singapore (NUS), Karlsruhe Institute of Technology (KIT), Royal Institute of Technology (KTH), National University of Science and Technology (NUST), Pakistan Institute of Science and Technology (PIEAS), Ghulam Ishaq Khan Institute (GIKI) etc.

B.Sc. Metallurgical and Materials Engineering

Year 1							
Semester 1				Semester 2			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
EE-199	Basic Electrical and Electronics Engineering	3	1	PHY-114	Applied Physics	2	1
ME-122L	Engineering Drawing	0	2	CY-151	Material Chemistry-I	2	1
MME-101	Introduction to Metallurgy and Materials	3	1	ME-100L	Workshop Practice	0	1
IS-101	Islamic and Pakistan Studies-I	3	0	HU-111	Communication Skills	0	1
MA-111	Applied Mathematics-I	3	0	MME-102	Mechanics of Materials	2	0
QT-101	Translation of The Holy Quran-I	1	0	MA-112	Applied Mathematics-II	3	0
				MME-103	Industrial Safety and Environmental Engineering	3	0
Year 2							
Semester 3				Semester 4			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
MME-201	Fuels and Furnaces	2	0	MME-211	Physical Metallurgy	3	1
MME-210	Foundry Engineering	3	1	MME-203	Powder Metallurgy	3	0
IS-201	Islamic and Pakistan Studies-II	3	0	MME-204	Polymeric Materials	3	1
MA-240	Numerical Analysis	2	1	MME-205	Iron and Steel Making Processes	3	0
HU-221	Technical Writing & Presentation Skills	3	0	MA-242	Engineering Statistics	3	0
MME-202	Applied thermodynamics	3	0	QT-201	Translation of The Holy Quran-II	1	0
Year 3							
Semester 5				Semester 6			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
MME-311	Mechanical Behavior of Engineering Materials	3	0	MME-304	Process Control and Instrumentation	2	0
MME-312	Ceramic Materials	3	1	MME-321	Heat Treatment and Phase Transformation (MME-211)	3	1
MME-301	Electrical and Magnetic Materials	3	0	MME-305	Welding and Joining of Materials	3	1
MME-302	Non-Ferrous Extractive Metallurgy	3	0	MME-306	Industrial and Financial management	3	0
MME-303	Inspection and Quality Assurance	3	1	MME-307L	Computational Methods in Materials Engineering	0	2
QT-301	Translation of The Holy Quran-III	1	0	MME-308	Characterization of Engineering Materials	3	0
Year 4							
Semester 7				Semester 8			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
MME-420	Solidification of Metals and Alloys (MME 210)	3	1	MME-403	Composite Materials	3	1
MME-421	Metal Working Processes (MME-311)	3	0	MME-404	Corrosion and Corrosion Control	3	1
MME-422	Advance Ceramics (MME-312)	3	0	MME-405	Surface Science and Engineering	2	0
MME-401	Nuclear Materials	2	0	MME-406	Bio Materials	2	0
MME-402	Nano Materials	2	0	MME-407	Vacuum Technology	2	0
QT-401	Translation of the Holy Quran-IV	1	0	MME-412	Final Project-II (MME-411)	0	3
MME-411	Final Project-I	0	3				



DEPARTMENT OF MINING ENGINEERING

Dean

Prof. Dr. Muhammad Zubair Abubakar

Professor

Dr. Zulfiqar Ali

Assistant Professors

Engr. Muhammad Mansoor Iqbal

Dr. Muhammad Azeem Raza

Dr. Muhammad Usman Khan

Dr. Muhammad Badar Hayat

Dr. Muhammad Shahzad

Chairman

Dr. Shahab Saqib

Associate Professors

Dr. Shahab Saqib

Dr. Yasir Majeed

Dr. Muhammad Zaka Emad

Introduction

The Department of Mining Engineering was established in 1954 as a 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 Mining Engineering 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 Educational Objectives (PEOs)

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

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

PEO-03: Social and Professional Ethics: 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 (CSR).

PEO-04: Leadership and Lifelong Learning: 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 & 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 weeks 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
- Mine Surveying
- Rock Mechanics
- Mine Environment
- Applied/ Structural Geology
- Mine Safety and Rescue
- Explosives Engineering
- Excavation Engineering
- Mine Design and Simulation

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

B.Sc. Mining Engineering

Mining Engineering							
Year 1							
Semester 1				Semester 2			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
MA-113	Calculus & Analytic Geometry	3	0	CS-103	Introduction of Computer Programming for Data Sciences	2	1
ME-122L	Engineering Drawing	0	2	EE-199	Basic Electrical and Electronics Engineering	3	1
MinE-110	Applied Geology	3	1	Phy-116	Applied Physics	2	1
CY-143	Physical and Industrial Chemistry	3	1	HU-111	Communication Skills	0	1
ME-100L	Workshop Practice	0	1	MinE-120	Stratigraphy and Structural Geology	2	1
IS-101	Islamic & Pakistan Studies-I	3	0	MinE-121	Mining Engineering Fundamentals	3	0
				QT-101	Translation of the Holy Quran-I	1	0
Year 2							
Semester 3				Semester 4			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
MA-228	Differential Equations	3	0	MA-234	Linear Algebra	3	0
MA-235	Engineering Mechanics	2	1	MA-242	Engineering Statistics	3	0
CE-231	Fluid Mechanics-I	3	1	ME-220	Mechanics of Materials	3	1
ME-210	Applied Thermodynamics	3	1	HU-221	Technical Writing and Presentation Skills	3	0
IS-201	Islamic & Pakistan Studies-II	3	0	MinE-240	Surveying	3	2
				QT-201	Translation of the Holy Quran-II	1	0
Year 3							
Semester 5				Semester 6			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
Min-E-350	Rock Mechanics	3	1	MinE-352	Mine Power Drainage & Material Handling	3	1
Min-E-351	Mineral Exploration	3	1	MinE-360	Ground Control Engineering	3	0
MA-240	Numerical Analysis	2	1	MinE-361	Underground Mine Design	3	0
MinE-353	Mine Ventilation	3	1	MinE-362	Surface Mine Design	3	0
GeoE-353	Introduction to GIS and Remote Sensing	2	1	MinE-363	Explosives Engineering	3	1
				QT-301	Translation of the Holy Quran-III	1	0
Year 4							
Semester 7				Semester 8			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
IME-371	Engineering Economics	2	0	Min-E-484	Mine Hazards, Safety and Health Management	3	1
MGT-410	Project Management	3	0	#	Social Science Elective*	3	0
MinE-470	Tunneling and Excavation Engineering	3	1	#	Technical Elective ^s	3	0
MinE-473	Mining and Environment	2	0	MinE-483	Mining Law	1	0
MinE-472	Mineral Processing	3	1	MinE-485	Senior Design Project-II	0	3
MinE-475	Senior Design Project-I	0	3	QT-401	Translation of the Holy Quran-IV	1	0

First Aid Training and Field Survey Camp are mandatory.

NOTE :

#: Course number of the offered elective course will be used

*: From offered Social Science Elective Courses

§: From the offered Technical Elective Courses

***Social Sciences Electives:**

Social Science Electives			
Course No.	Courses	Credit Hrs	
		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
MinE-403	Organizational Behavior	3	0
MinE-404	Professional Ethics	3	0
MGT-413	Entrepreneurship	3	0

\$Technical Electives

Technical Electives			
Course No.	Courses	Credit Hrs	
		Th	Pr
MinE-421	Coal Technology	3	0
MinE-422	Solution Mining	3	0
MinE-423	Operations Research	3	0
MinE-425	Cement Technology	3	0
MinE-426	Commercial Explosive Handling and storage	3	0
MinE-427	Drilling Technology	3	0



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 21st 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

Programs Offered:

- 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 Jehlum, 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
- Geo environmental Engineering
- Hydrogeology and Environment
- Drilling and Petrophysical Well Logging
- Petroleum Related Rock Mechanics

B.Sc. Geological Engineering

Year 1				
Semester 1				Semester 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	
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	
Year 2				
Semester 3				Semester 4
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	
Course No	Subject (Pre-requisites)	Credit Hours		
		Th	Pr	
MA-240	Numerical 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	
Year 3				
Semester 5				Semester 6
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	
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	
Year 4				
Semester 7				Semester 8
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	
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 PETROLLEUM & GAS ENGINEERING

Dean

Prof. Dr. Muhammad Zubair Abubakar

Chairman

Prof. Dr. Muhammad Khurram Zahoor

Assistant Professors

Mr. Azam Khan

Dr. Faisal Mehmood

Dr. Arshad Shehzad

Mr. Ahmad Shahid

Lecturers

Mr. Muhammad Rizwan Latif

Mr. Muhammad Kashif Ali

Mr. Hasan Jehanzaib

Mrs. Mahwish Akram

Introduction

The Department of Petroleum & Gas Engineering has the distinction of being the pioneer in the country to offer degree programs in Petroleum & 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 & 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. Recently the Petroleum & Gas Engineering program at UET Lahore has been ranked (51-100) in the world by prestigious QS Ranking. This makes Department of Petroleum & Gas Engineering at UET, Lahore the first ever department (of any discipline) in Pakistan to achieve this feat. It is all because of continuous support of university administration, faculty, and students.

Mission

To transform young brains into brilliant Petroleum Engineers, through modern teaching and research, to achieve professional excellence in oil and gas industry.

Program Education Objectives (PEOs)

- PEO-01:** To equip graduates with updated engineering knowledge and research skills for examining and solving complex industry problems.
- 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 & Other Facilities

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

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

The department has the facility of a well-stocked library as well. The library is features with more than 2000 books. The Japanese aid through JICA Program for laboratory equipment resulted in upgraded 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 have been offered well-paid positions in national and multinational companies. Doors of jobs are open for the graduates of the department worldwide as well. 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 & 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 support, majority of our third year and final year Undergraduate students avail summer internships.

B.Sc. Petroleum & Gas Engineering**Year 1****Semester 1**

Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Pet. E-101	Fundamentals of Petroleum Engineering	3	0
CS-103	Introduction to Computer Programming for Data Science	2	1
HU-111	Communication Skills	0	1
MA-123	Calculus	3	0
ME-120L	Engineering Drawing & Graphics	0	1
Min. E-110	Applied Geology	3	1

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

Year 2**Semester 3**

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-216	Strength of Materials	2	1
EE-201	Electrical Engineering and Electronics	2	1
IS-201	Islamic & Pakistan Studies-II	3	0

Semester 4

Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
Pet. E-205	Properties of Reservoir Fluids	3	1
CE-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

Year 3**Semester 5**

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 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	2/3	1/0

Year 4**Semester 7**

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 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



DEPARTMENT OF ARCHITECTURE

Dean

Prof. Dr. Rizwan Hameed

Chairperson

Dr. Munazzah Akhtar

Professor Emeritus

Prof. Dr. Neelam Naz

Associate Professors

Dr. Munazzah Akhtar
Ms. Quratulain Asghar

Assistant Professors

Dr. Shama Anbrine
Dr. Malik Usman Mehmood Awan
Dr. Mamuna Iqbal

Ms. Madiha Zaman

Ms. Qudsia Asif
Ms. Rabia Ahmed Qureshi
Mr. Adnan Jalil
Dr. Maryam Siddiq

Lecturer

Ms. Hina Nabeel

The Department of Architecture has a history spanning over 60 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. By now it has a large body of alumni with nearly 1600 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 unmatched expertise in various facets of the profession of Architecture. At present, in terms of qualification, as well as width and breadth of relevant knowledge base its faculty is far surpassing any other school/department of architecture in the country. The Department, thus has not only maintained its leading role in architectural education, it is set to further expand its frontiers through specializations it offers through its Masters and Ph.D. program.

The programmes offered in the department are listed as below:

- a) Bachelor of Architecture (B.Arch)
- b) Master of Architecture (M.Arch)
- c) PhD 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.

Objective

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 working environment within the Department of Architecture is pleasant and intimate. The students spend a significant part of their working in Design Studios which, coupled with low student intake, ensures high degree of interaction between students, and between faculty members and students. The spacious internal courtyard acts as a social space for different design and drawing activities and enhances interaction between students.

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.

Bachelor in Architecture

Bachelor in Architecture							
Year 1							
Semester 1				Semester 2			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
Arch-101	Basic Design – I	0	5	Arch-111	Basic Design – II	0	5
Arch-102	Materials and Construction – I	2	1	Arch-117	Structural Systems – I	1	1
Arch-103	History of Civilization – I	2	0	Arch-113	History of Civilization – II	2	0
Arch-104	Architectural Graphics-I	0	3	Arch-114	Model Making	0	2
CE-101	Elementary Surveying	3	1	Arch-115	Free Hand Sketching	0	2
HU- 111	Communication Skills	0	1	HU/IS-101	Islamic and Pakistan Studies-I	3	0
QT-101	Translation of the Holy Quran	1	0				
Year 2							
Semester 3				Semester 4			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
Arch-201	Architectural Design – I	0	6	Arch-211	Architectural Design – II	0	6
Arch-207	Structural Systems – II	1	1	Arch-212	Materials and Construction-II	2	1
Arch-203	History of Civilization – III	2	0	Arch-213	History of Civilization – IV	2	0
Arch-204	Architectural Graphics-II	0	2	Arch-214	Architectural Graphics-III	0	2
Arch-206	Environmental Control-I	2	1	Arch-216	Environmental Control-II	2	1
Hu/IS-202	Islamic & Pak Studies-II	3	0	Arch-217	Computer Application in Architecture-I	0	2
				QT-201	Translation of the Holy Quran	1	0
Year 3							
Semester 5				Semester 6			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
Arch-301	Architectural Design–III	0	8	Arch-311	Architectural Design–IV	0	8
Arch-302	Building Services	2	1	Arch-312	Architectural Working Drawings	0	2
Arch-303	Environmental Psychology	2	0	Arch-313	Theory of Architecture	2	1
Arch-306	Energy Efficient Architecture	2	1	Arch-317	Interior Design	2	1
Arch-307	Computer Application in Architecture –II	0	2	QT-301	Translation of the Holy Quran	1	0
Year 4							
Semester 7				Semester 8			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
Arch-401	Architectural Design–V	0	8	Arch-411	Architectural Design–VI	0	8
Arch-403	History, Theory & Criticism	2	0	Arch-413	Architecture in Pakistan	2	0
Arch-406	Research & Report Writing	2	0	Arch-417	Conservation of Historic Buildings	2	0
Arch-407	Landscape Design	2	1	Arch-418	Urban Design-II	1	2
Arch-408	Urban Design-I	2	1	QT-401	Translation of the Holy Quran	1	0
Year 4							
Semester 9				Semester 10			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
Arch-501	Thesis Design-I	0	10	Arch-511	Thesis Design-II	0	11
Arch-502	Project Management	2	1	Arch-512	Professional Practice	2	1
Arch-503	Elective-I	2	0	Arch-513	Elective-II	2	0



DEPARTMENT OF CITY & REGIONAL PLANNING

Dean

Prof. Dr. Rizwan Hameed

Chairman

Prof. Dr. Shaker Mahmood Mayo

Professors

Dr. Rizwan Hameed

Dr. Obaidullah Nadeem

Dr. Shaker Mahmood Mayo

Dr. Ijaz Ahmad

Dr. Amer Aziz

Associate Professors

Dr. Muhammad Asim

Dr. Atif Bilal Aslam

Assistant Professors

Dr. Zareen Shahid

Dr. Humaira Tabassum

Lecturer

Ms. Saima Rafique

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 (APA), Royal Town Planning Institute (RTPI), International Society of City and Regional Planners (ISOCARP) 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.

International Linkages and Collaborations

The Department has also established academic links with other institutions of related fields within Pakistan and abroad. Our Master's degree courses are developed through foreign link programs. The Department has also signed various Memorandum of Understandings with national and international organizations and universities, seeking collaboration in the areas of research, teaching and exchange of students and teachers. Recently, the Department, in collaboration with Technische Universität Dortmund, Germany, has entered into a 3-years (2022-24) project entitled "Planning in Germany and Pakistan; Responding Challenges of Climate Change through Intercultural Dialogue" funded by DAAD (German Academic Exchange Service). Some other institutions who have collaborated with the Department in the past are:

- Technische Universität Dortmund, Germany
- Northumbria University, UK
- International Emergency Team, UK
- Punjab Emergency Services, Government of Punjab
- Technische Universität Berlin, Germany
- Trier University, Germany
- Parliamentary SDGs Secretariat, National Assembly of Pakistan
- Government College University, Lahore
- University of Liverpool, UK
- Heriot Watt University, Edinburgh, UK
- University of Edinburgh, United Kingdom (UK)

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 and Management, Development Economics, Climate Change Adaptation and Disaster Management, Urban Regeneration and Conservation, Master Planning, Estate Management, Transportation Planning, Housing and Urban Development, and Urban Design. Moreover, the students are equipped with related software techniques including ArcGIS, AutoCAD, SPSS, Sketchup, 3D Max, Photoshop, Primavera, EPANET, HCS, TransCAD, Vissim and languages such as Python and C++. 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 public, statistical 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. 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 3rd and final year undergraduate students to gain hands-on practice in the field of town planning and to become viable and experienced job applicants when seeking employment opportunities after graduation.

Where are Our Graduates Working?

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 & Khyber Pakhtunkhwa
- Punjab Housing and Town Planning Agency
- Development Authorities (LDA, CDA, MDA, GDA, KDA, GDA, SDA, RDA, RUDA, LCBDDA and the like)
- Local Government and Community Development Department (Metropolitan/Municipal Corporations, and District Councils)
- Federal Government Employees
- Housing Authority
- Armed Forces (Pakistan Army, Military Engineer Services and Design Directorates)
- Estate Management Directorates of Civil Aviation Authority and Pakistan Railways
- NDMA, PDMA and Punjab Emergency Services
- Rescue 1122
- Cantonment Boards

Furthermore, there are numerous employment opportunities with the local, national and international NGO's, private planning consultancy firms and land developers. Our graduates are also extensively working in the real estate sector with the private entities such as Graana.com, Zameen.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. The department conference room has also been equipped with the video camera to hold the online lectures and meetings.

Library and Allied Facilities

The Department has a well-stocked library with above 3,300 books including 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 & Regional Planning

EnE-301 City & Regional Planning							
Year 1							
Semester 1				Semester 2			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
CRP-101	Introduction to City and Regional Planning	3	0	CRP-104	Mapping and Remote Sensing	1	2
CRP-102	Technical Drawing	0	2	CRP-105	History of Urban Planning	2	0
HU-001	Functional English	3	0	CRP-106	Transportation Engineering	2	1
CRP-103	Computer Aided Design and Modeling	0	2	IS-101	Islamic and Pakistan Studies-I /Ethics and Pakistan studies – I	3	0
CE-101	Elementary Surveying	3	1	MA-141	Applied Statistics	3	0
MA-114	Applied Mathematics	3	0	CY-131/ PHY110	Environmental Chemistry I / Applied Physics*	2	1
				QT-101	Translation of The Holy Quran - 1	1	0
Year 2							
Semester 3				Semester 4			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
CRP-201	Environmental Planning and Management	3	1	CRP-206	Sociology	2	0
CRP-202	Architectural Design	1	2	CRP-207	Housing and Urban Development	2	1
CRP-203	Applied Geography	2	0	CRP-208	Transportation Planning	2	1
CRP-204	Information Technology and Database Management	0	3	CRP-209	Introduction to GIS	1	1
HU-200	Technical Report Writing	3	0	IS-201	Islamic and Pakistan Studies/Ethics and Pakistan Studies-II	3	0
CRP-205	Development Economics	2	0	HU-111	Communication skills	0	1
PID-207	Workshop Practice (Model Making)	0	1	CRP-210	Planning Surveys	1	2
				QT-201	Translation of The Holy Quran - 2	1	0
Year 3							
Semester 5				Semester 6			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
EnE-308	Environmental Engineering	3	1	CRP-309	Research Methods	2	1
CRP-304	Planning Law	3	0	CRP-310	Industrial Estate Planning and Design	1	1
CRP-305	Urban Regeneration and Conservation	2	1	CRP-311	Landscape Design	1	1
CRP-306	Planning of New Towns	2	2	CE-301	Building Construction Technology	2	1
CRP-307	GIS Analysis and Applications	1	1	CRP-313	Urban Design	2	1
CRP-308	Climate Change Adaptation and Disaster Management	2	0	CRP-314	Active Citizenship and Development Planning	2	0
				QT-301	Translation of The Holy Quran - 3	1	0
Year 4							
Semester 7				Semester 8			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
CRP-401	Master Planning – I	2	2	CRP-407	Project-II	0	3
MGT-402	Finance Planning and Management	2	1	CRP-408	Master Planning – II	1	2
CRP-403	Project Planning and Management	1	1	CRP-409	Estate Management	1	1
CRP-404	Professional Planning Practice	1	2	CRP-410	Land use and Building Control	2	1
CRP-405	Rural Development Planning	2	0	CRP-411	Regional Planning	2	1
CRP-406	Project –I	0	3	MGT-413	Entrepreneurship	3	0
				QT-401	Translation of The Holy Quran - 4	1	0



DEPARTMENT OF PRODUCT AND INDUSTRIAL DESIGN

Dean

Prof. Dr. Rizwan Hameed

Chairman

Prof. Dr. Rizwan Hameed

Assistant Professor

Ms. Fariha Saeed

Ms. Asma Khalid

Dr. Salman Asghar

Ms. Anum Shamshad

Ms. Mona Gulzar

Lecturers

Ms. Aisha Hameed

Ms. Uroosa Naz

Ms. Neyalish Aman (on contract)

Ms. Aiman Amjad (on contract)

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 graduates 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**
- **Digital Graphics**
- **Ceramics/ Wood**
- **Postgraduate Research**

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

B.Sc. Product & Industrial Design Engineering

Year 1							
Semester 1				Semester 2			
Course No	Title	Credit Hours		Course No	Title	Credit Hours	
		Th	Pr			Th	Pr
PID-101	Fundamentals of Design -I	2	2.5	PID-111	Fundamentals of Design -II	2	2.5
PID-102L	Visual Communication - I	0	2	PID-112L	Technical Drawing	0	1.5
PID-103	Materials and Technology – I	2	1	PID-113	Materials and Technology – II	2	1
PID-106	History of Creative Arts and Design – I	1	1	PID-115L	Digital Graphics	0	2.5
PID-105	Introduction to Computers	1	1	ME-100L	Workshop Practice	0	1
IS-101	Islamic and Pakistan Studies -I	3	0	MA-114	Applied Mathematics	3	0
HU-111L	Communication Skills	0	1	QT-101	Translation of the Holy Quran -I	1	0
Year 2							
Semester 3				Semester 4			
Course No	Title	Credit Hours		Course No	Title	Credit Hours	
		Th	Pr			Th	Pr
PID-201	Product Design-I	2	2.5	PID-211	Product Design-II	2	2.5
PID-202	Ergonomics	2	1	IME-253	Work Study & Ergonomics	2	1
PID-203	Advance Materials & Science	2	1	PID-217L	Advance Computer Aided Design	0	2.5
PID-206	History of Creative Art & Design-II	1	1	PID-216	Aesthetics	2	0
PID-205L	Computer Aided Design	0	2.5	MA-244	Probability and Statistics	2	1
HU-221	Technical Writing & Presentation Skills	3	0	IS-201	Islamic and Pakistan Studies -II	3	0
				QT-201	Translation of the Holy Quran - II	1	0
Year 3							
Semester 5				Semester 6			
Course No	Title	Credit Hours		Course No	Title	Credit Hours	
		Th	Pr			Th	Pr
PID-301	Product Design-III	2	2.5	PID-311	Product Design-IV	2	2.5
PID-302L	3D-Modeling	0	2.5	PID-313	Graphic Design	2	2
PID-303	Photography	1	1	PID-314	Research Methodology	2	1
PID-304	History of Creative Art & Design-III	2	0	PID-315	Introduction to Management	1	1
PID-305L	Computer Modeling & Rendering	0	2.5	ME-229	Mechanics of Materials and Machine Design	3	0
PHY-301	Packaging Physics	2	1	QT-301	Translation of the Holy Quran - III	1	0
Year 4							
Semester 7				Semester 8			
Course No	Title	Credit Hours		Course No	Title	Credit Hours	
		Th	Pr			Th	Pr
PID-401	Product Design-V	1	3	PID-411	Final Year Project -II	0	12
PID-402	Final Year Project -I	0	6	PID-412	Professional Practice	2	1
PID-403	Electives	2	1	Sub Total		15	
	1. Visual Communication Design (video production)						
	2. Advanced Ceramics						
	3. Furniture Design						
	4. Advertisement Design (print media)						
5. Product Development & Manufacturing							
6. Interior Design							
MGT-413	Entrepreneurship	3	0				
QT-401	Translation of the Holy Quran -IV	1	0				



DEPARTMENT OF CHEMISTRY

Dean

Prof. Dr. Muhammad Shahid Rafique

Professor Emeritus

Dr. Fazeelat Tahir

Chairperson

Prof. Dr. Farhat Yasmeen

Professor

Dr. Syeda Rubina Gilani

Dr. Aneela Anwar

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

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.

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, Kjeldahl Apparatus, Soxhlet Apparatus, Schilink Lines, some Electrochemical Instruments, Fluorescence Spectrophotometer (cary eclipse), ATR (cary 630 FTIR), Refractometer (Abbat 500), Polarimeter (MCP 500), Potentiostat, Ultra-Low Temperature Freezer (U360 Inova), 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

Year 1					
Semester 1				Semester 1	
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)
		Th	Pr		
HU-111	Communication Skills	0	1	HU-221	Technical Writing and Presentation Skills
IS-101	Islamic Studies/Pak studies I	3	0	IS-201	Islamic Studies/Pak studies II
Math-101	Calculus I	3	0	Math-105	Statistics
CS-101L	Computing Fundamentals	0	1	CY-141	Biochemistry and Biotechnology
Phys-101	Mechanics	3	0	MGT-100	Introduction to Business
Phys-101L	Mechanics Lab	0	1	CY-111	Introduction to Analytical Chemistry
CY- 151	Introduction to Physical Chemistry	2	0	CY-111L	Introduction to Analytical Chemistry Lab
CY-151L	Introduction to Physical Chemistry Lab	0	1		
CY-121	Introduction to Inorganic Chemistry	2	0		
QT-101	Translation of the Holy Qur'an-I	1	0		
Year 2					
Semester 3				Semester 4	
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)
		Th	Pr		
Math-203 & 203L	Scientific Programming	2	1	CY-253	Physical Chemistry – II
CY-252	Physical Chemistry – I	2	1	CY-213	Analytical Chemistry II
CY-222	Inorganic Chemistry – I	2	1	CY-223	Inorganic Chemistry-II
CY-261	Organic Chemistry-I	2	1	CY-262	Organic Chemistry-II
CY-201	Environmental Sciences	3	0	QT-201	Translation of the Holy Qur'an-II
CY-212	Analytical Chemistry 1	2	1	CY-204	Energy Resources of Pakistan and its Management
				Math-205	Ordinary Differential Equations
Year 3					
Semester 5				Semester 6	
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)
		Th	Pr		
CY-314	Analytical Chemistry-III	3	1	CY-315/CY-331	Analytical Chemistry-IV/ Applied Chemistry
CY-324	Inorganic Chemistry-III	3	1	CY-325	Inorganic Chemistry-IV
CY-363	Organic Chemistry-III	3	1	CY-364	Organic Chemistry-IV
CY-354	Physical Chemistry-III	3	1	CY-355	Physical Chemistry-IV
QT-301	Translation of the Holy Qur'an-III	1	0	CY-301	Workplace hazardous materials information
HU-204	Foreign Languages (Any)	1	0		
Year 4					
Semester 7				Semester 8	
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)
		Th	Pr		
CY-4--*	Advanced Paper I	3	0	CY-4--*	Advanced Paper IV
CY-4--*	Advanced Paper II	3	0	CY-4--*	Advanced Paper V
CY-4--*	Experimental Methods	3	0	CY-4--*	Experimental Methods
CY-491	Scientific Report Writing	3	0	CY-4--*	Elective Course (Other than the field of specialization)
QT-401	Translation of the Holy Qur'an-IV	1	0	CY-492	Research Project/Social Services and Report Writing / Additional Paper (3 credit)
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

*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. 15³ 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

Inorganic & Analytical 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 Emeritus

Dr. Nasir Chaudhary

Professors

Dr. Asma Rashid Butt
Dr. Sabir Hussain
Dr. Qasim Ali Ch.

Associate Professors

Dr. Muhammad Irfan Qadir
Dr. Shafique-ur-Rahman
Dr. Mustafa Habib
Dr. Samia Riaz
Dr. Saadia Farid

Assistant Professors

Mr. Muhammad Naeem
Ms. Rubina Fayyaz
Ms. Saima Nazir

Dr. Anjum Pervaiz

Ms. Samina Saeed Khan
Dr. Shamaila Samreen
Dr. Kashif Ali Khan
Dr. Muhammad Shabbir
Dr. Taimoor Iqbal

Lecturers

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.

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

Year 1							
Semester 1				Semester 2			
Course No	Subject	Credit Hours		Course No	Subject	Credit Hours	
		Th	Pr			Th	Pr
MATH-101	Calculus-I	3	0	MATH-104	Calculus II	3	0
MATH-102	Elements of Set Theory and Mathematical Logic	3	0	MATH-105	Statistics	3	0
CS-103	Introduction of Computer Programming for Data Science	2	1	MATH-106	Software Packages	3	0
HU-111	Communication Skills	1	0	CY-151 & 151L	Introduction to Physical Chemistry	2	1
IS-101	Islamic and Pakistan Studies-I	3	0	HU-221	Technical Writing and Presentation Skills	3	0
PHYS-101 & 101L	Mechanics	3	1	IS-201	Islamic and Pakistan Studies II	3	0
QT-101	Translation of the Holy Qur'an-I	1	0				
Year 2							
Semester 3				Semester 4			
Course No	Subject	Credit Hours		Course No	Subject	Credit Hours	
		Th	Pr			Th	Pr
MATH-201	Calculus III	3	0	MATH-205	Ordinary Differential Equations	3	0
MATH-203	Scientific Programming	2	1	MATH-206	Discrete Mathematics	3	0
MATH-204	Linear Algebra	3	0	MATH-211	Operation Research-I	3	0
PHYS-201 & 201L	Waves and Oscillations	3	1	CY-111 & 111L	Introduction to Analytical Chemistry	2	1
MGT-100	Introduction to Business	3	0	PHYS-202	Heat and Thermodynamics	3	0
				HU-204	Any Foreign Language	1	0
				QT-201	Translation of the Holy Qur'an-II	1	0
Year 3							
Semester 5				Semester 6			
Course No	Subject	Credit Hours		Course No	Subject	Credit Hours	
		Th	Pr			Th	Pr
MATH-301	Real Analysis-I	3	0	MATH-307	Classical Mechanics	3	0
MATH-302	Vector and Tensor Analysis	3	0	MATH-308	Partial Differential Equations	3	0
MATH-303	Probability	3	0	MATH-309	Complex Analysis	3	0
MATH-304	Topology	3	0	MATH-310	Differential Geometry	3	0
MATH-312	Operation Research II	3	0	MATH-311	Real Analysis-II	3	0
MATH-305	Modern Algebra-I	3	0	QT-301	Translation of the Holy Qur'an-III	1	0
Year 4 (Pure Mathematics)							
Semester 7				Semester 8			
Course No	Subject	Credit Hours		Course No	Subject	Credit Hours	
		Th	Pr			Th	Pr
MATH-400	Number Theory	3	0	MATH-405	Integral Equations	3	0
MATH-401	Numerical Analysis	3	0	MATH-441	Functional Analysis	3	0
MATH-403	Mathematical Physics	3	0		Elective – 3	3	0
	Elective -1	3	0		Elective – 4	3	0
	Elective -2	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

Fourth Year 7th Semester (Applied Mathematics)

Course Code	Course Title	Credit Hours
MATH-401	Numerical Analysis	3
MATH-402	Fluid Mechanics-I	3
MATH-403	Mathematical Physics	3
	Elective-1	3
	Elective-2	3
Total:		15

Fourth Year 8th Semester (Applied Mathematics)

Course Code	Course Title	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
Total:		16

*** 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

Fourth Year 7th Semester (Computational Mathematics)

Course Code	Course Title	Credit Hours
MATH-401	Numerical Analysis	3
MATH-403	Mathematical Physics	3
MATH-416	Optimization Theory	3
	Elective-1	3
	Elective-2	3
Total:		15

Fourth Year 8th Semester (Computational Mathematics)

Course Code	Course Title	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
Total:		16

*** 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
Dr. Shamaila Shahzadi

Associate Professor

Dr. Rashid Jalil
Dr. Ibtisam Riaz
Dr. Abdul Waheed Anwar

Assistant Professor

Dr. Ishrat Mubeen Dildar
Dr. Umber Kalsoom
Dr. Usman Ilyas
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

Assistant Professor

Dr. Khadija tul Kubra

The Department was established in 1962

Courses of Study

- Bachelor of Science (BS) Physics (4 Years Program)
- M.Phil. Applied Physics
- M.Phil. Nano Science and Technology
- 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 448 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 Shaukat Khanum Hospital, INMOL, Jinah Hospital, Mayo Hospital, Children Hospital etc. The Department has also produced 29 Ph.D. and 26 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 B.S. Physics program was started in 2020. The students who got admission in Session 2020 & Session 2021 are pursuing their BS Physics degree.

The Department offers a challenging Bachelor of Science (B.S. Physics) 4 years program that prepares students in all core areas of physics and aspires to develop them into versatile critical thinkers. This program is designed to provide a strong foundation of the fundamental principles of Physics. Faculty is highly engaged in experimental, theoretical, and undergraduate research. Highly equipped undergraduate laboratories (mechanics, electricity and magnetism, waves and oscillations, electronics, modern physics, laser and optics, and advanced electronics) are available for students to understand the practical applications of theoretical concepts. There are several other opportunities for our undergraduate students which provide them more conducive learning environment to have hands-on experience by actively engaging in curricular and extra curricular activities. This enables our students to have a fantastic career in their particular field.



B.S. Physics**Year 1****Semester 1**

Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHYS-101	Mechanics	3	1
IS- 101	Islamic and pakistan studies- i	3	0
MATH-101	Calculus-i	3	0
CS - 103	Introduction to computer programing for data science	2	1
CY- 151	Introduction to physical chemistry	2	1

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	3	1
CY- 111	Introduction to analytical chemistry	2	1
QT-101	Translation of the holy quran-1	1	0

Year 2**Semester 3**

Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHYS-201	Waves & oscillations	3	1
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 4

Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
HU-111	Communication skills	1	0
PHYS-204	Electronics -i	3	1
PHYS-205	Physical and Geomtrical optics	3	0
MATH-205	Ordinary differential equations	3	0
PHYS-206	Classical mechanics	3	0
MGT-102	Sociology	3	0
QT-201	Translation of Holy Quran-ii	1	0

Year 3**Semester 5**

Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHYS-311	Concepts of modern physics	3	1
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	1	0

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

Year 4**Semester 7**

Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr
PHYS-441	Statistical methods in physics	3	0
PHYS-442	Lasers physics	3	1
PHYS-443	Thermal and statistical physics	3	0
PHYS-444	Computational physics	3	0
PHYS-445	Semiconductor optoelectronics	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

**Elective
Subjects**

PHYS-491	ADVANCED ELECTRONICS (Elective-I)	3
PHYS-491L	ADVANCED ELECTRONICS (LAB.) / PROJECT (Elective-I)	3
OR		
PHYS-492	ATMOSPHERIC SCIENCE AND METEOROLOGY (Elective-II)	3
PHYS-492L	ATMOSPHERIC SCIENCE AND METEOROLOGY (LAB.) / PROJECT (Elective-II)	3
OR		
PHYS-493	PHYSICS AT NANOSCALE (Elective-III)	3
PHYS-493L	PHYSICS AT NANOSCALE (LAB.) / PROJECT (Elective-III)	3
OR		
PHYS-494	QUANTUM PLASMAS (ELECTIVE-IV).	3
PHYS-494L	QUANTUM PLASMAS (LAB.) / PROJECT (ELECTIVE-IV).	3
OR		
PHYS-500	THESIS (Elective-V)	6

The department is also offering physics courses in engineering & non-engineering departments of the University.

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 Lab
2. Diagnostic & Characterization Lab

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.



DEPARTMENT OF HUMANITIES, MANAGEMENT AND SOCIAL SCIENCES

Dean

Prof. Dr. Muhamma Shahid Rafique

Chairperson

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. Hafiz Zahid Latif

Assistant Professors

Dr. Muhammad Nadeem Shah

Ms. Gul Saria Ashraf

Dr. Tanveer Qasim

Dr. Hafiz Qudratullah

Chairman

Prof. Dr. Hafiz Muhammad Shahbaz

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'anic translation to the students of bachelor's degree programs. So the subject "Translation of the Holy Qur'an", 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 Jamia Mosque UET.



INSTITUTE OF BUSINESS AND MANAGEMENT

Dean

Prof. Dr. Muhammad Shahid Rafique

Dr. Farman Afzal

Dr. Kanwal Iqbal Khan

Dr. Muhammad Shoaib Farooq

Dr. Naeem Akhtar

Mr. Muhammad Zia-ul-Haq

Ms. Quratulain Akhtar

Ms. Rabia Naseem

Ms. Rizwana Hameed

Mr. Saad Mahmood

Ms. Sadaf Razzaq

Ms. Safia Kanwal

Ms. Samreen Malik

Ms. Sara Kanwal

Ms. Zarmeena Malik

Ms. Zunaira Iftikhar

Director

Dr. Muhammad Nasir Malik

Lecturers

Ms. Aeisha Altaf

Mr. Aftab Shoukat

Mr. Farid Pervez Shami

Ms. Maria Khan

Ms. Maryam Farooq

Assistant Professors

Dr. Abdul Aziz Khan Niazi

Dr. Amir Ikram

Dr. Bilal Aziz

Dr. Farah Samreen

Introduction

IB&M was established in 2009 to facilitate a community of responsible citizens and aspiring management professionals who can inspire the business landscape through their creativity, integrity, and commitment to excellence and sustainability. The Institute leverages UET's 100 years of academic excellence in innovation, professional expertise, and industry-oriented education. IB&M provides a combination of a robust curriculum, highly qualified faculty with remarkable research contributions, well-equipped business school premises, and a myriad of student support services that synergize into a memorable and rewarding learning experience.

IB&M Vision

To have a transformative impact on society through education and research.

IB&M Mission

To educate the next generation of responsible citizens in a collaborative environment that promotes transformational learning, inspires creativity & solution orientation, and to make a meaningful contribution to business and society through research.

Undergraduate Degree Programs

For all undergraduate programs offered at IB&M, our philosophy is to impart contemporary knowledge with an equal emphasis on personality and professional development so that our graduates are nurtured to realize their full potential. Our graduates are well-placed in leading national and multinational organizations and provide a strong alumni network base for future graduates. The Institute offers the following undergraduate degree programs:

Bachelor of Business Administration (BBA)

BBA program prepares its participants for careers in business and non-profit organizations as management professionals by enhancing their intellectual capacity, personal and professional development, and personality transformation. The graduates will be able to synthesize knowledge of functional business areas for effective management in a dynamic business environment.

Bachelor of Business and Information Technology (BBIT)

BBIT program prepares technology-conversant professionals with business and information technology knowledge funneled into a coherent strategic whole for effective management in a disruptive business landscape. It offers a unique blend of business management and information technology tools to be implemented in the IT leveraged management of conventional businesses.

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, general knowledge, and periodic journals to promote scholarly interests and research activities.
- IB&M organizes demand-driven professional 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.
- Business Incubation Center is designed to help young startups innovate, grow and create an impact on the societal level by solving some problems. We support these promising ventures to commercialize, gain traction and connect them with industry and investors. Our startups achieve success as we provide continuous guidance, mentoring, and monitoring for sustained growth.

NEW CAMPUS

(KSK)

- Department of Electrical, Electronics & Telecommunication Engineering
- Department of Energy Engineering
- Department of Bio-Medical Engineering
- Department of Mechanical, Mechatronics & Manufacturing Engineering
- Department of Chemical, Polymer & Composite Material Engineering
- Department of Food Engineering and Bio-Technology
- Department of Basic Sciences and Humanities
- Department of Management
- Department of Computer Sciences

Department of Electrical, Electronics & Telecommunication Engineering

Chairman

Dr. Muhammad Ali

Associate Professor

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

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
- Advanced Project
- Microwave and Antenna
- Project

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 Energy Engineering

Dean

Prof. Dr. Naveed Ramzan

Lecturers

Ms. Anam Anwar

Dr. Harris Mehmood Khan

Dr. Hira Tahir

Mr. Umair Furqan

Ms. Isra Nazir

Assistant Professor

Dr. Hasan Erteza Gelani

(Teacher Incharge)

From a global perspective, the United Nations (UN) adopted 17 Sustainable Development Goals (SDGs), also termed as Global Goals as a universal call to action, in order to put an end to poverty and promote sustainability. Among these goals, the goal number 07 (Affordable and Clean Energy) addresses the access to affordable, modern, reliable and sustainable energy. From national perspective; fortunately and unfortunately, Pakistan has been blessed with almost all kinds of renewable energy resources, still more than 01 billion people are deprived of electricity and the country is struggling to achieve the targets set by UN till 2030. Harvesting energy for utilization at various levels (domestic, industrial etc) requires technical knowledge and skill. The Higher Education Commission (HEC) of Pakistan sensed the need of time and launched the program in 2014-15. The revised curriculum of which was presented in 2018. The program was named as Energy Systems Engineering (ESE), which was aimed to provide knowledge related to energy and power, mechanical and chemical technologies mixed with energy economics and policy.

Mission:

To dispense leading-edge knowledge and skill amalgamated with modern tools which serve as a pathway for the community/country towards energy sustainability.

Program Educational Objectives (PEOs)

PEO-01: To apply knowledge of engineering in devising solution for energy related problems remaining within environmental constraints.

PEO-02: To develop skills for design, formulation and analyses of efficient systems for extraction and processing of clean energy.

PEO-03: To cultivate effective communication skills as well as knowledge of social implications of energy engineering.

Career Opportunities:

The curriculum of ESE has been designed to adjust the energy system engineers in field as well as office based jobs. From the perspective of field jobs, energy system engineers find career opportunities in various energy based firms, particularly those dealing with extraction of energy from various sources inside or outside Pakistan. Whereas, from the perspective of office based jobs, the energy system engineers can find career opportunities in energy management and policy. The program attracts male as well as female candidates due to wide scope of jobs.

In line with the case of Pakistan and UET, China Pakistan Economic Corridor, CPEC is a pilot project of Belt and Road initiative of China which has been touted by many as a gateway to economic prosperity and stability in Pakistan. It accompanies great potential in terms of solving the ongoing energy crisis and eventually leading Pakistan towards energy security. CERAD functions to provide energy solutions to the government and the graduates from UET in ESE can serve the government of Pakistan on CPEC.

Program:

B.Sc. Energy Systems Engineering

Department of Bio-Medical Engineering

Dean:

Prof. Dr. Naveed Ramzan

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

BIO-MEDICAL ENGINEERING							
Year 1							
Semester 1				Semester 1			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
PHY-111	Applied Physics	2	1	BME-103	Human Anatomy	2	1
CS-141	Introduction to Computing	3	1	MA-113	Calculus & Analytical Geometry	3	0
EE-199	Basic Electrical & Electronics Engineering	3	1	BME-102	Physiology 1	2	1
BME-104/MA-110	Basic Biology /Basic Mathematics	2,3	1,0	EE-110	Circuit Analysis	3	1
	International Language	0	0	CS-142	Programming Fundamentals	3	1
BME-101	Introduction of Biomedical Engineering	1	0	QT-101	Quran Translation	1	0
IS-101	Islamic & Pak Studies 1	3	0				
Year 2							
Semester 3				Semester 4			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
MA-116	Linear Algebra & Differential Equations	3	0	BME-213	Biomedical Electronics	2	1
BME-201	Physiology 2	2	1	CSE-221	Digital Logic Design	3	1
BME-214	Biochemistry	3	0	MA-221	Complex Variable & Transform	3	0
EE-212	Semiconductor Devices	3	1	BME-202	Cellular & Molecular Biology	2	1
ME-100L	Workshop Practice	0	1	EE-220	Signals & Systems	3	0
HU-111L	Communication Skills	0	1	QT-201	Quran Translation 2	1	0
IS-201	Islamic & Pak Studies 2	3	0				
Year 3							
Semester 5				Semester 6			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
BME-318	Biomedical Instrumentation 2	2	1	BME-310	Biomedical Instrumentation 1	2	1
BME-XXX	Technical Elective 1	3	0	EE-320	Applied Probability & Statistics	3	0
EE-340	Control Systems	3	1	MA-346	Numerical Methods	3	0
BME-244	Biomedical Modeling & Simulation	2	1	EE-273	Microprocessor Systems	3	1
BME-212	Biomechanics	2	1	BME-313	Biomaterials	2	1
QT-301	Quran Translation 3	1	0	ME-124L	Engineering Drawing	0	1
Year 4							
Semester 7				Semester 8			
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)	Credit Hours	
		Th	Pr			Th	Pr
MGT-XXX	Management Elective 1	3	0	BME-XXX	Technical Elective 4	3	0
BME-411	Medical Imaging	2	1	IME-251	Social & Ethical Aspects in Engineering	2	0
BME-XXX	Technical Elective 2	3	0	BME-XXX	Technical Elective 5	3	0
BME-XXX	Technical Elective 3	3	0	MGT-XXX	Management Elective 2	3	0
HU-221	Technical Writing & Presentation Skills	3	0	BME-412b	Biomedical Engineering Project Phase 2	0	3
BME-412a	Biomedical Engineering Project Phase 1	0	3	QT-401	Quran Translation 4	1	0

(5 out of given 23 must be chosen)

Technical Electives			
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

(2 out of given 6 must be chosen)

Management Electives			
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

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 equipment 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

- B.Sc. Mechanical Engineering
- M.Sc. Thermo-Fluid 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
- Fluid Mechanics
- Hydraulic Machinery
- CAD
- Mechanical Workshops
- CNC
- Refrigeration and Air Conditioning
- Heat and Mass Transfer
- Mechanics of Machines
- Mechanics of Material
- Dynamics
- Internal Combustion Engines

Department of Chemical, Polymer and Composite Material Engineering

Chairman

Prof. Dr. Tanveer Iqbal

Professor

Dr. Syed Mohsin Ali Kazmi

Associate Professor

Dr. Hamayoun Mahmood
Dr. Muhammad Imran Rashid
Dr. Asif Nadeem Tabish
Dr. Ch. Haider Ali

Assistant Professor

Dr. Samreen Hameed
Dr. Asif Jamil
Dr. Zohaib Atiq Khan
Mr. Muhammad Raashid
Dr. Muhammad Irfan
Dr. Muhammad Waqas Iqbal

Lecturer

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
- M.Sc. Safety, Health and Environment

Laboratories

- Mass Transfer
- Fluid Flow
- Process Heat Transfer
- Particle Technology
- Unit Processes
- Computers & Computation
- Chemical Reaction Engineering
- Energy Engineering
- Instrumentation and Control
- Chemical Engineering Thermodynamics
- Environmental Engineering
- Research Lab

Department of Food Engineering and BioTechnology

Associate Professor

Dr. Sikandar Rafiq

Assistant Professor

Dr. Asma Khan

Dr. Adeel Anwar

Introduction

The department has initiated the program of Bachelor's in Food Science and Technology, considering the growing demand of the society. The program encompasses courses related to food chemistry, human nutrition, sustainable agriculture, fluid mechanics, plant pathology, food processing, food preservation, food analysis, occupational safety, health and environment, entomology, food biotechnology, sustainable food production, post-harvest technologies, food product development and quality management.

Department of Basic Sciences and Humanities

Chairman

Dr. Ahmad Shuaib

Associate Professor

Dr. Kashif Rehan

Dr. Samina Akbar

Assistant Professor

Dr. Rashid Munir

Dr. Masood Ul Hassan

Dr. Maryam Imtiaz

Dr. Ayesha Riasat

Dr. Umm-I-Kalsoom

Dr. Zulfiqar Ali

Lecturer

Mr. Muhammad Usman

Ms. Saba Ajmal

Mr. Habib-ur-Rehman

Mr. Hafiz Muhammad Mudassar

Introduction

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 introduce students with scientific, socio-cultural, aesthetic and oratory convictions the Department offers 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
- Applied Physics
- Engineering Physics Lab
- Applied Mathematics
- Communication Skills
- Technical Writing and Presentation Skills
- Functional English
- Islamic Studies
- Pakistan 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 mantle, 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
- Applied Chemistry
- Bio-material / Nano ceramics
- Nano-material / Nano Catalysis
- Environmental Science
- Applied Physics
- Engineering Physics
- Physics Research (Nanoparticles Synthesis)
- Physics Research
- Applied Mechanics
- Mathematics Computer

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 Management

Dean

Prof. Dr. Muhammad Shahid Rafique

Assistantt Professor

Dr. Abdul Aziz Khan Niazi

Dr. kanwal Iqbal Khan

Programs Offered

Bachelor's of Business Administration

Introduction

The Department offers a four years undergraduate program that provides a concrete foundation in all functional areas. The students are provided with an opportunity to specialize in the fields of management, marketing or finance. The program focuses on holistic personality transformation of the students through general education, extracurricular activities and participative learning activities.

Department of Computer Sciences

Chairman

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

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

- B.Sc. Computer Science
- 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.

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 onstraints 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.

Year 1							
Semester 1				Semester 1			
Course No	Subject	Credit Hours		Course No	Subject	Credit Hours	
		Th	Pr			Th	Pr
CS-102	Introduction to Computing (ITC)	3	1	CS-162	Object Oriented Programming (OOP)	3	1
CS-161	Programing Fundamentals (PF)	3	1	IS-101	Islamic and Pak Studies-I	3	0
HU-102	Functional English (FE)	3	0	CS-163	Discrete Mathematical Structures (DMS)	0	0
MA-123	Calculus	3	0	CS-165	Software Engineering (SE)	3	1
PHY-111	Applied Physics (APH)	2	1	MA-116	Linear Algebra and Differential Equations	3	0
ME-100L	Workshop Practice (WP)	0	1	QT-101	Translation of the Holy Quran	1	0
Year 2							
Semester 3				Semester 4			
Course No	Subject	Credit Hours		Course No	Subject	Credit Hours	
		Th	Pr			Th	Pr
CS-263	Operating Systems (OS)	3	1	CS-261	Data Structures & Algorithms (DSA)	3	1
CS-262	Database System	3	1	SE-221	Introduction to Human Computer Interaction	3	0
SE-222	Software Design & Architecture (SDA)	2	1	SE-211	Software Requirement Engineering (SRE)	3	0
HU-240	Psychology	2	0	MA-343	Applied Probability & Statistics	3	0
IS-201	Islamic and Pak Studies-II	3	0	HU-111L	Communication Skills LAB	0	1
MGT-103	Sociology for Engineering	2	0	QT-201	Translation of the Holy Quran	1	0
Year 3							
Semester 5				Semester 6			
Course No	Subject	Credit Hours		Course No	Subject	Credit Hours	
		Th	Pr			Th	Pr
SE-323	Software Construction and Development (SC&D)	2	1	SE-331	Software Quality Engineering	3	0
CS-366	Computer Networks (CN)	3	1	CS-364	Information Security	3	0
HU-221	Technical Writing and Presentation Skills	3	0	CS-301	Professional Practices in Software Development	3	0
xx-xxx	SE-Elective-I	3	0	SE-324	Principles of Web Engineering	2	1
CS-3xx	SE-Supporting-I	3	0	xx-xxx	SE-Elective-II	3	0
QT-301	Translation of the Holy Quran	1	0	CS-xxx	SE-Supporting-II	3	0
Year 4							
Semester 7				Semester 8			
Course No	Subject	Credit Hours		Course No	Subject	Credit Hours	
		Th	Pr			Th	Pr
SE-441	Software Project Management	3	0	xx-xxx	SE-Supporting-III	3	0
SE-442	Software Re-Engineering	3	0	xx-xxx	SE-Elective-V	3	0
xx-xxx	SE-Elective-III	3	0	CS-466	FYP-II	0	3
xx-xxx	SE-Elective-IV	3	0	MGT-424	Leadership Strategies	3	0
MGT-414	Entrepreneurship and Business Management	3	0	HU-xxx	International Language	0	0
CS-465	FYP-I	0	3	QT-401	Translation of the Holy Quran	1	0

FAISALABAD CAMPUS

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

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:

- B.Sc. Electrical Engineering
- B.Sc. Mechatronics and Control Engineering
- B.Sc. Chemical Engineering
- B.Sc. Textile Engineering

Department of Electrical, Electronics & Communication Engineering

Chairman

Dr. Muhammad Akram

Dr. Muhammad Nasir

Dr. Aashir Waleed

Dr. Yasir Jamal

Mr. Rameez Javed

Mr. Azeem Iqbal

Mr. M. Ali Raza

Associate Professors

Dr. Muhammad Akram

Dr. Faizan Dastgeer

Lecturers

Mr. Muhammad Ahsan ul Haq

Mr. Zain Shabbir

Mr. Waseem Arshad

Ms. Munazza Sadaf

Mr. Hassan Mujtaba

Assistant Professors**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:

- B.Sc. Electrical Engineering
- M.Sc. Electrical Engineering

The Department has adopted Mission and PEOs of the Electrical Engineering Department, Lahore (Main Campus).

Laboratories

The following laboratory facilities are available at the department

- Electric Circuits
- Computer Lab
- Semiconductor Devices
- Electric Machines
- Micro Processor Systems
- Antenna and MicroWave
- Analog Electronics
- Digital Electronics
- Communication Systems
- Power Electronics
- Power Systems
- Physics
- Control Systems
- Digital logic Design

Department of Mechatronics and Control Engineering

Chairman

Prof. Dr. Hassan Ijaz

Dr. Hashim Iqbal

Dr. Muhammad Usman

Dr. Imran Mahmood

Dr. Imran Ali

Dr. Asim Ghaffar

Mr. Dilruba Siddiqi

Mr. S. M. Umar

Mr. Zia ur Rahman

Mr. Umar Siddique Virk

Mr. Waqas Arshad

Mr. Saqib Zafar

Mr. M. Imran

Mr. M. Tanveer Riaz

Assistant Professors

Dr. Nasir Ahmad

Dr. Hafiz Farhan Maqbool

Dr. Ahmad Ali

Dr. Muhammad Awais Hafeez

Lecturers

Ms. Ammara Kanwal

Introduction

Mechatronics is an inter-disciplinary field of Engineering that integrates the domains of Mechanical Engineering, Electrical Engineering, Computer Science, and Information Technology. This hybrid-engineering program was established to fulfill the ever-growing demands of industry and research sectors to tackle the problems associated to the control, automation, artificial intelligence, robotics and/or related areas. The department at Faisalabad campus is equipped with state-of-the-art laboratories and highly qualified faculty to provide the students with a great learning environment.

Courses of Study

The department offers:

- B.Sc. Mechatronics and Control Engineering
- M.Sc. Mechatronics Engineering

Laboratories

- Instrumentation and Measurement
- Automation
- Mechanics of Materials
- Circuits and Devices
- Fluid Mechanics
- Control Systems
- Engineering Mechanics
- Mechanisms
- Thermal Sciences
- Computer (Simulation) Lab
- Engineering Workshop
- Hydraulics and Pneumatics

Mission

The department, through quality education and enabling environment, aims to nurture the professional engineers with the capability of designing complex Mechatronic systems, serving current industrial needs and developing innovative technologies.

Program Educational Objectives (PEOs)

To nurture Mechatronics engineer who

PEO-01: Can skillfully 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.

Department of Chemical and Polymer Engineering

Chairman

Prof. Dr. Syed Waqas Ahmad

Dr. Abdul Rehman

Dr. Khalid Mehmood

Dr. Izzat Iqbal Cheema

Lecturers

Ms. Iqra Saleem

Ms. Saba Gul

Mr. Aiman Shabbir

Mr. Muhammad Imran

Mr. Muhammad Mudassir

Associate Professors

Dr. Faisal Saleem

Dr. Muhammad Danish

Dr. Haji Ghulam Qutab

Assistant Professors

Ms. Rabia Sharif

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:

- B.Sc. Chemical Engineering
- M.Sc. Chemical Engineering

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

Laboratories

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

Department of Textile Engineering

Chairman

Prof. Dr. Muhammad Mohsin

Dr. Aamir Abbas

Dr. Usama Bin Humayoun

Mr. Muhammad Ahsan

Mr. Khurram Shehzad Akhtar

Ms. Wardah Anam

Mr. Rehan Asghar

Assistant Professors

Dr. Shaheen Sardar

Lecturers

Dr. Nasir Sarwar

Ms. Sidra Ghaffar

Course Offered:

- 1) B.Sc. Textile Engineering
- 2) M.Sc. Textile and Materials Engineering
- 3) Ph.D. Textile Engineering

Introduction

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 its survival; which cannot be realized without competent professionals in the relative field. Faisalabad campus is privileged over other campuses of UET for holding a degree awarding department in the field of Textile Engineering.

The course of study is the composite one and cover all four section of textile which include:

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

The department started offering Bachelor's in Textile in 2013, Master's in Textile and Materials Engineering in 2020 and Ph.D. in Textile Engineering in 2021; with highly qualified faculty and well-equipped laboratories. There is more than 120 lab scale equipment installed at the department of textile engineering in the following labs.

Laboratories

- Mini Spinning Lab-complete range (Pakistan's first and only such lab)
- Pilot Spinning Lab
- Weaving Lab
- Knitting Lab
- Pre-treatment, Dyeing & Finishing Lab
- Wet Processing Research Lab
- Textile Chemical Synthesis and Polymerization Lab
- Testing Lab (Physical & Chemical)
- Scanning Electron Microscope Lab
- Garment Manufacturing Lab
- Pattern Cutting Lab
- Textile Recycling 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. All the 12 PLOs related to WA are adopted for the BSc Textile Engineering program.

Program Educational Objectives

PEO-01: Deal with contemporary challenges in the textile industry by using concepts and techniques of textile engineering and applied sciences.

PEO-02: Exhibit effective communication, and managerial skills, as team leaders as well as team members.

PEO-03: Develop their careers professionally giving due considerations to health and safety, socio-economic, environmental and ethical challenges.

B.Sc. Textile Engineering

Year 1					
Semester 1				Semester 2	
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)
		Th	Pr		
TEX-101	Textile Engineering Fundamentals	2	1	IS-101	Islamic and Pakistan Studies-I
CY-105	Applied Chemistry-I	2	1	TEX-102	Textile Raw Materials and Science
ME-102	Mechanical Engineering Fundamentals	3	0	EE-199	Basic Electrical and Electronics Engineering
CS-103	Introduction to Computer Programming for Data Science	2	1	MA-106	Applied Mathematics
HU-104	Communication Skills	2	0	CY-106	Applied Chemistry
MA-105	Applied Mathematics-I	3	0	ME-100L	Workshop Practice
				QT-101	Translation of The Holy Qur'an-I
Year 2					
Semester 3				Semester 4	
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)
		Th	Pr		
PHY-103	Applied Physics	2	1	TEX-205	Yarn Production Engineering
TEX-202	Yarn Preparatory Processes	2	1	TEX-206	Dyestuff and Color Science
TEX-203	Weaving Preparatory Processes	2	1	TEX-207	Clothing Anthropometry and Pattern Construction
TEX-204	Pre-treatment of Textiles	2	1	TEX-208	Computer Application in Textile
IS-201	Islamic and Pakistan Studies-II	3	0	QT-201	Translation of The Holy Qur'an-II
HU-205	Technical Writing	3	0		
Year 3					
Semester 5				Semester 6	
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)
		Th	Pr		
TEX-301	Textile Testing and Quality Control	2	1	TEX-306	Advance Spinning techniques
TEX-302	Weaving Mechanisms and Advancements	3	1	TEX-307	Knitting Operations
TEX-303	Textile Dyeing and Printing	3	1	TEX-308	Textile Finishing
TEX-304	Sewn Product Engineering	3	1	TEX-305	Technical Textiles and Nonwovens
MA-205	Applied Statistics and Probability	3	0	MGT-318	Entrepreneurship and Management
				QT-301	Translation of The Holy Qur'an-III
Year 4					
Semester 7				Semester 8	
Course No	Subject (Pre-requisites)	Credit Hours		Course No	Subject (Pre-requisites)
		Th	Pr		
TEX-401	Specialty Yarns	2	1	TEX-404	Senior Design Project II
MGT-418	Engineering Management	3	0	TEX-405	Industrial Engineering in the Clothing Industry
TEX-403	Senior Design Project I	0	3	MGT-415	Environment, Health and Safety
TEX-406	Clothing Quality Control	3	1	QT-401	Translation of The Holy Qur'an-IV
HU-404	Professional Ethics and Procurement	3	0	TEX-402	Fabric Structure and Design

The Department is working in close collaboration with the top Pakistani textile industry. Department offer regular industrial tours and training to its textile engineering students as well as industrial expert and foreign lectures for the students at the department. There are lot of research going on in the department and department faculty have published over 160 papers, three patents and 6 international book chapters in last five years. Four Ph.D. students have successfully been co-supervised and completed their practical work in the textile labs of the department. Department has developed anti-viral masks, PPEs, innovative banana and okra fabric and other range of innovative products and processes. Department is the member of the Society of Dyers and Colourists, UK. Department also won the only prize for Textile Processing Technologies at the 6th, 7th, 8th Invention to Innovation Summit 2017, 2018 and 2019. Its textile engineering students have won the second place at the EU mask competition 2020.

There is 100% job placement for the graduates of the textile engineering department and around 75% of the students receive the job offer before the graduation. Graduates of the UET textile department are currently working in some of the top mills of the country like Nishat, Interloop, Crescent, Kamal, Master, Sapphire,

CBL, Sadaqat, Artistic, Cotton web, Azgard 9, US Apparel, TTI, US denim and Masood textile etc. Since 2018, every year department of textile engineering organize three mega events of textile (International Conference on Sustainable Textile, Pakistan region SDC-UK textile design competition for students & Top Pakistani Textile Brands Tribute) and 2021 event was held on 19th May 2021. While the annual 5th International Conference on Sustainable Textile 2022 is being planned in September 2022. Textile sustainability working group has also been announced at the 4th conference and more than 220 textile industry and stakeholders are already part of this initiative.

Department of Humanities, Basic Sciences and Islamic Studies

Chairman

Dr. Sajjad Ahmad

Associate Professor

Dr. Sajjad Ahmad

Dr. Faisal Nawaz

Dr. Ghufrana Samin

Assistant Professors

Dr. Muhammad Aslam

Dr. Abdur Rehman

Dr. Ilyas Ali

Dr. Arshi Khalid

Mr. Kamran Shaheen

Ms. Shazia Karim

Dr. Muhammad Yasir

Dr. Sheeba Ghani

Lecturers

Mr. Mohsin Sheraz

Ms. Saira Zahid

Introduction

The requirement of the establishment of the department lies in the following:

- 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. Department is equipped with various laboratories having number of modern equipments like UV-visible Spectrophotometer, FTIR, Atomic Absorption Spectrophotometer, Rotary evaporator Refractometer, Polarimeter etc.

Courses of Study

The Department offers:

- M.Phil Applied Chemistry
- 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

Mr. Rameez Javed

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.

RACHNA CAMPUS

- Department of Electrical Engineering
- Department of Mechanical Engineering
- Department of Industrial & Manufacturing Engineering
- Department of Computer Science and Engineering
- Department of Natural Sciences, Humanities & Islamic Studies

Incharge

Dr. Haroon Farooq

The College

The College was inaugurated on 15th 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 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

The department of Electrical Engineering was established in 2003. Currently the department has a student enrollment of around 200. So far by year 2021-22, around 600 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.

Program 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: Utilize their skills and knowledge to solve real world Electrical Engineering problems

PEO-02: Demonstrate social and ethical responsibility in their professional careers

PEO-03: Pursue professional careers through continuous improvement in technical, managerial and communication skills

Faculty

The department has 14 faculty members, including three Ph.Ds and eleven have post-graduate qualifications. The faculty members are actively involved in teaching and research activities.

Chairman, Department of Electrical Engineering
Dr. Haroon Farooq, Associate Professor

Assistant Professors
Dr. Muhammad Naveed Akhtar
Adnan Bashir
Muhammad Rehan Arif
Muhammad Usman Aslam
Moazzam Shehzad

Lecturers
Waqas Ali
Irzam Shahid
Salman Tariq
Hira Ali Jamal
Saira Arif

Laboratories

The department currently has ten (10) well equipped dedicated laboratories to support program.

- Electronics Lab
- Microprocessors Lab
- Communications Lab
- Power Electronics Lab
- Power and Machines Lab
- Electric Circuits Lab
- Computer Lab
- Integrated Electronics Lab
- Control Systems Lab
- Workshop

Department of Mechanical Engineering

The department of Mechanical Engineering was established in 2003. Currently the department has a student enrollment of around 180. The department offers undergraduate B.Sc Mechanical Engineering degree program. The program is accredited with Pakistan Engineering Council under Level-II. The departmental faculty has successfully won various funded research projects.

Program Mission

To produce engineers equipped with knowledge and skills to carry on lifelong learning through quality teaching and training. Our graduates shall be able to serve the society demonstrating professional ethics and social conduct.

Program Educational Objectives (PEOs)

PEO-01: Apply knowledge to solve analytical and practical engineering problems.

PEO-02: Work for continuous professional and socio-technical development.

PEO-03: Demonstrate professional ethics, effective communication, and managerial skills.

Chairman, Department of Mechanical Engineering
Dr. M. Salman Abbasi, Associate Professor

Assistant Professors
Dr. Tariq Nawaz Chaudhary
Dr. Qasim Ali Ranjha
Mushtaq Ahmad
Humble Bin Khalid
Muhammad Qasim

Lecturers
Muhammad Kashif Jamil
Aaqib Imdad
Jawad Ahmad
Hafiz Muhammad Suleman
Anas Rao
Ali Akbar*

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
- Mechanical Vibration

Department of Industrial & Manufacturing Engineering

Head of Department/ Teacher Incharge

Dr. Muhammad Harris (Assistant Professor)

Assistant Professors

Dr. Ubaid-Ur-Rehman Ghori
Mr. Muhammad Aslam
Mr. M. Mohsin Ahmad Sadiq
Mr. Muhammad Shahzad
Mr. Muhammad Awais Ahmad

Lecturers

Mr. Muhammad Nouman Khalid
Mr. Ahmad Sheraz Cheema

Laboratories

The following laboratories have been setup at Industrial & Manufacturing Engineering Department:

- | | |
|---|--|
| <ul style="list-style-type: none"> • Advanced Manufacturing • Human Factor Engineering • Computing lab • Machine Tools and Machining • Industrial Materials • Manufacturing Processes | <ul style="list-style-type: none"> • Metrology and Quality Assurance • Production and Operations Management • Instrumentation and Control • Plant Engineering • Engineering Drawing |
|---|--|

Department of Computer Science and Engineering

Chairman

Dr. Abdul Jaleel

Assistant Professors

Mr. Shahid Islam
Dr. Tayybah Kiren
Dr. Natasha Nigaar

Lecturers

Mr. Noman Sohaib Qureshi
Ms. Amna Wajid
Ms. Natasha Nigar
Ms. Uroosa Bilal Chaudhry
Mr. Muhammad Shehzad Aslam
Mr. Abu Bakar Siddique

Laboratories

- Programming Lab
- Systems Lab

Department of Natural Sciences, Humanities & Islamic Studies

Chairman,

Dr. Adnan Aslam, Associate Professor

Assistant Professors

Dr. Majid Hussain
Dr. Syed Mazhar Shah
Dr. Atta-ur-Rehman Makhdoom
Mr. Liaquat Ali Tahir
Dr. Muhammad Abdullah

Lecturers

Ms. Faiza Bushra
Mr. Ahmad Ali

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 millions 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. The college also has an ambulance for medical emergencies.

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 |
| • Basket Ball Court | 01 |
| • Foot Ball Ground | 01 |
| • Volley Ball Court | 01 |

-
- | | |
|------------------|----|
| • Cricket Ground | 01 |
| • Gymnasium | 01 |
| • Table Tennis | 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)
- Prosoft Society of Computer Science

NAROWAL CAMPUS

- Department of Electrical Engineering
- Department of Computer Science and Engineering
- Department of Mechanical Engineering
- Department of Civil Engineering
- Department of Bio-Medical Engineering
- Department of Basic Sciences & Humanities

Campus Coordinator

Prof. Dr. Muhammad Shahbaz

University of Engineering and Technology Lahore, Narowal Campus established in 2012, offers multiple Bachelor's 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 beautiful architecturally 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

Dean

Prof. Dr. Naveed Ramzan

Assistant Professors

Dr. Rana Tariq M. Ahmad (On Leave)

Dr. Imran Javed

Dr. Khurram Hashmi

Ms. Asia Rafique

Mr. Osama Bin Naeem

Mr. Muhammad Haseeb

Professors

Prof. Dr. Syed Zubair

Lecturers

Mr. Amna Javeed

Mr. Shahbaz Bashir

Associate Professors

Dr. Waqas Tariq Toor (Chairman)

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.

We are committed to develop an array of skills and techniques, personal qualities and attributes essential for successful performance in working life and thereby enabling learners to make an immediate contribution to the industry and academia. The true spirit of the Electrical Engineering Department lies in its simple maxim; "Quality Education with affordable Fee Structure". Here 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, Multimedia Assisted Classrooms, Innovation Center, unlimited 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.

Alumni:

Six batches of Electrical Engineering Department with a total of 205 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:

1. Electric Circuits Lab
2. Electronics Lab
3. Systems Lab
4. Electrical Workshop and FYP Lab
5. Electrical Machines Lab
6. Computer Lab

Extra-Curricular Activities:

Seminars, Project Exhibitions, and workshops etc. are managed by IEEE Society, under the supervision of Department.

Department of Computer Science and Engineering

Dean Prof. Dr. Naveed Ramzan	Assistant Professor Dr. Mubashar Saddique	Lecturers Mr. Yaseen ul Haq Ms. Iqra Muneer Ms. Saadia Tariq Ms. Fatima Shahzadi Ms. Rabia Zafar
Associate Professor Dr. Muhammad Idrees (HoD)		

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. We are committed to develop an array of skills and techniques, personal qualities and attributes essential for successful performance in working life and thereby enabling learners to make an immediate contribution to the computing industry. The true spirit of the Computer Science and Engineering Department lies in its simple maxim; **“Quality Education with affordable Fee Structure”**. Here 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 Classrooms, Innovation Center, unlimited Scholarships and consistently Updated Library. One of the most admirable features of Computer Science and Engineering Department at Narowal campus is its Highly Educated Faculty.

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.

Alumni:

Four batches of Computer Science and Engineering Department with a total of 110 students have graduated and the alumni are working in various national and international organizations.

Programs

B.S. Computer Science

Regulatory Status

The undergraduate program of Computer Science and Engineering Department at Narowal Campus is accredited by NCEAC (HEC).

Laboratories:

The department has the following well equipped laboratories which fulfill the academic needs of students and faculty:

1. Programming Lab
2. Software Engineering/Database Lab
3. General Purposes Lab
4. Network/Operating System Lab
5. FYP Lab
6. Digital Logic Design Lab
7. Hardware Lab

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 Department.

Department of Mechanical Engineering

Dean:

Prof. Dr. Nadeem Ahmad Mufti

Lecturers:

Mr. Nazim Waheed
Mr. Shahid Farooq
Mr. Tanveer Mukhtar
Mr. M. Lolak

Mr. Umar Ishaq
Mr. Asif Jalal
Mr. Sufyan Matloob

Assistant Professor:

Dr. Saqlain Abbas (HOD)
Dr. Aqib Mashood

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 152 students at undergraduate level. So far by year 2022, six batches holding 233 students have graduated from the department and are serving at both national & international level. The department was established with the following program educational objectives (PEOs).

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

Laboratories

- Engineering Mechanics
- Fluid Mechanics
- Hydraulic Machinery
- Mechanics of Materials
- Mechanics of Machines
- Workshops
- Metrology & Quality Assurance
- Computer lab

Department of Civil Engineering

Dean

Prof. Dr. Habib Ur Rehman

Lecturers

Ms. Sehrish Khan

Mr. Usman Anwar

Mr. Intezar Hussain

Mr. Ahad Ali

Mr. Muhammad Mohsin

Mr. Muhammad Usman

Assistant Professors

Dr. Muhammad Shoaib Karam (HoD)

Mr. Adeel Faisal

Dr. Muhammad Tahir

Mr. Sohail Ahmad

Department of Civil Engineering at Narowal campus was established in 2013. First batch of Civil Engineers was graduated in 2017 and almost all are employed. Around 150 students are currently enrolled in Civil Engineering Department in different sessions. The Department has highly qualified faculty from Germany, Japan, China and Pakistan.

The Department of Civil Engineering excels in innovative teaching and research, in developing practical applications and approaches to problems associated with theory and practice of construction field, 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-1.** Graduates demonstrate their proficiency of applying the knowledge & skills to solve complex Civil engineering problems.
- **PEO-2** Graduates communicate effectively and contribute in the project team.
- **PEO-3.** Graduates uphold principles of ethics and integrity throughout their professional practices.
- **PEO-4.** Graduates engage themselves in continuous professional learning process.

Alumni:

Six batches of Civil Engineering Department have graduated, and the alumni are working in various national and international organizations. Some of them are

working as entrepreneurs and freelancers as well.

Regulatory Status

The undergraduate program of Civil 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:

- Surveying
- Geotechnical Engineering
- Computer
- Concrete
- Environmental Engineering
- Fluid Mechanics
- Engineering Mechanics

Department of Bio-Medical Engineering

Dean: Prof. Dr. Naveed Ramzan	Dr. Muhammad Rehan Chaudry Dr. Hafiz Muhammad Salman Ajmal Dr. Sameen Ahmed Malik Dr. Bisma Rauff	Lecturer Ms. Umber Warraich Ms. Noor Ul Ain Mir Mr. Abdul Hanan Taqi Mr. Muhammad Hamza Zulfiqar
Assistant Professor Dr. Farooq Ahmad (HOD) Dr. Muhammad Umair Ahmad Khan		

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.

University of Engineering and Technology Lahore, Narowal Campus is keenly interested to offer a bachelor's degree in biomedical engineering strongly driven towards design and research in Biomedical Instrumentation, Biomedical Signal and Image Processing, Biomechanics and Biomedical Modeling & Simulation. 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.

Program offered

B.Sc. Bio Medical 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 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.

Laboratories:

The department has the following well equipped laboratories which fulfill the academic needs of students and faculty:

1. Electric Circuits
2. Electrical and Electronics
3. Anatomy and Physiology
4. Electromechanical System Technologies
5. Robotics

Department of Basic Sciences & Humanities

Dean Prof. Dr. Muhammad Shahid Rafique	Dr. Imran Aslam Dr. Absar Ul Haq	Ms. Farheen Samra Ms. Rabia Shaukat Ms. Anjum Naseem Rao Mr. Muhammad Ishaq Malik
Assistant Professor Dr. Habib Hussain (HoD) Dr. Muhammad Yousuf	Lecturers Mr. Muhammad Zeeshan Ashraf Mr. Tahir Shahzad	

Introduction:

Basic Sciences and Humanities (BS&H) department was established in 2012 in UET Lahore, Narowal campus. To inculcate quality education, 10 highly qualified faculty members have been employed. The department offers BS programs in Chemistry, Physics, Mathematics and focuses to enhance theoretical knowledge and practical expertise of students. The department also shares its faculty members to teach 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.

Mission

To awaken young minds and unleash their talents in both theory and practice, through innovative teaching methods.

Program Offered

- B.S. Chemistry
- B.S. Physics
- B.S. Mathematics

Laboratories

The department has following well-equipped laboratories to fulfill academic needs of students and faculty as well:

- Chemistry Lab
- Physics Lab
- Computer Lab

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) "Chairperson" means the Chairperson 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-requisite" 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 a second re-admission if he is separated a second time 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:
- f) First year and second year students may be allowed to register in at most 19 credit hours during fall and spring semesters.
- g) Students of third year and beyond may be allowed to register in at most 22 credit hours during fall and spring semesters.
- h) At most 8 credit hours during summer semester.
- i) Registration will only be allowed in a subject if the prerequisites, if any, of this subject have been completed successfully.
- j) Registration in a subject section will be closed if the maximum permitted number of students has registered in it.
- k) 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.
- l) During summer semester, selected subjects will be offered in accordance with departmental policy for that 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;
- d) "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;

- e) "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. Chairperson 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:

$$GPA = \frac{\sum_{i=1}^n (GP_i \times CH_i)}{\sum_{i=1}^n CH_i}$$

where n is the number of subjects in the semester for which GPA is being computed.

$$CGPA = \frac{\sum_{i=1}^m (GP_i \times CH_i)}{\sum_{i=1}^m CH_i}$$

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 6th study week during fall and spring semesters and up to 3rd 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 Forced Withdrawal (WF) 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 a "WF" grade and will be awarded an "F" grade.

12.3 Incomplete "I" Grade

A student, who because of illness or any other acceptable reason fails to complete the required instruments in any subject may be awarded an Incomplete (I) 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 an "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, i.e., spring semester for an "I" grade awarded in fall semester and fall semester for an "I" grade awarded in spring semester, his "I" grade would be converted to an "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 an "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 a 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 a second re-admission if he is separated a second time from the University.

15.0 Changing Discipline after Admission

- a) A student, after first year of study at the University, may opt for a 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 Chairperson 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 Chairperson 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.

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 Chairperson 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 Chairperson 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 Chairperson'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's Chairperson has the authority to evaluate the situation and change a grade, if required. When a grade is to be changed, the Chairperson 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 three 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 Chairperson 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. Chairperson 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 Chairperson 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 answer books of mid-term and final examinations.
- 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 Chairperson 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 Chairperson 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 fate 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 Chairperson 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 Chairperson 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 Chairperson's office at the end of each examination.

2.5 Teachers or Staff acting as invigilators are detailed by the respective Chairperson. 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 Controller of Examinations. 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 Chairperson.

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.

VISITING STUDENTS POLICY

1. Visiting students are classified as students currently admitted into a B.Sc. (4 years), M.Sc./ M.Phil. (18 years) or Ph.D. program of any University within or outside Pakistan and enrolled for one semester only to study selected subjects at UET Lahore. Registration in a maximum of five courses by any individual student at undergraduate level and two courses at postgraduate level is permissible.
2. The candidates desiring to study one or more subjects in any department of UET shall apply directly to the Chairperson concerned at least 15 days before commencement of a Semester. The Chairperson, after discussion with the concerned teacher, may approve or reject the request. In case the request is accepted by the Chairperson, it will be forwarded to the respective Dean. The Dean after due deliberation may accept or reject the request. In case of acceptance by the Dean, the request will be forwarded to Convener Admission Committee for further action.
3. CAC shall issue a registration number to the student after submission of: (a) total dues, (b) matriculation or equivalent certificate and (c) a No Objection Certificate from the parent university of the applicant. A folder shall be maintained in the Students Section and a notification shall be issued with copies to Controller, Treasurer, concerned Dean and Chairperson of the department, and to the Security Office.
4. The registration number shall be of the following nomenclature:
YYYY-PP-DD-V-XX
where
 - YYYY: Year of application like 2021, 2022, etc.
 - PP: Program like B.Sc., M.S., M.Phil. or Ph.D.
 - DD: Department like EE, Civil, ME, etc.
 - V: Shall be written as such indicating Visiting Status
 - XX: Two digit Integer number starting from 10.
5. The visiting student shall be issued the temporary University ID card but he shall not be eligible for any benefit admissible to regular students of the University like hostels, library, sports facility, etc. He shall have to pay all the dues in advance and shall not be eligible for financial assistance or installments facility. Any dues once paid shall be non-refundable.
6. The student shall be governed by all rules regarding academics and discipline.
7. Studentship of a visiting student shall end on completion of the Semester in which he is registered in a course. Second time registration as a visiting student is not permissible.
8. Examination Branch shall include his name in the student record of the concerned department facilitating his registration and issuance of DMC or Transcript on completion of the said subject. Examination record shall be maintained for any future reference.
9. Fee structure is given below:
 - Registration Fee: Rs 5,000/-
 - Fee per course including any laboratory, if applicable: Rs 20,000/- (UG)/Rs 25,000/- (PG)

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 3rd, 4th or 5th 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. In case, he has not appeared in the UET entry test of that session then he must have appeared in the entry test of UET Peshawar or MUET Jamshoro or NED Karachi or the one conducted by HEC Islamabad. In case of the candidate of University/Institution abroad, he must have appeared in the SAT.
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 <http://admission.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 in private universities or Self-support/Self-finance basis in public universities.
 - 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.

CODE OF ETHICS



In the name of Allah, the Beneficent, the Merciful

Whereas Allah enjoineeth 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 your 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.
- iv. 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.
- v. 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.
- vi. 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:

- i. Commits a breach of any of the rules of conduct specified in these regulations, or
- ii. Disobeys the lawful order of a teacher or other person in authority in the University, or
- iii. Habitually neglects his work or habitually absents himself from his classes without reasonable cause, or
- iv. Willfully damages University property or the property of a fellow student or any teacher or employee of the University; or
- v. Does not pay the fees, fines or other dues levied under the University ordinances rules and regulations, or
- vi. 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
- vii. Uses indecent language, wears immodest dress, makes indecent remarks or gestures or behaves in a disorderly manner, or
- viii. 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:

	PENALTY	AUTHORITY COMPETENT TO IMPOSE THE PENALTY
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 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
q)	Fine without limit	/ Director tudents Affairs.
r)	Rustication from the University for a period not exceeding six months	Dean of the Faculty
s)	Rustication from the University for a period not exceeding one year	Associate Professor
t)	Rustication for any period	Chairman of a Teaching Department / Professor / Committee
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 extend 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 from students graduating from a four years degree program or a five years degree program, respectively.
 - 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 15,000/- 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 from 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 online 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 21 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 8th day.
- b) Half (50%) fee refund if admission cancelled from 9th to 16th day.
- c) No fee refund if admission cancelled from 17th 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

- a) The University security, library security, hostel security and mess securities are refunded when a student cancels his admission before completion of his degree.
- b) The one-time deposit of US\$ 10,000/- made by foreign and dual national students admitted under SF category 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 and 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 basis 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, Project Director, Security Officer, 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

- a) Students are only eligible for the award of one scholarship at a time.
- b) 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.
- c) Cases regarding tuition fee of orphan students availing HEC scholarship will be decided by the HEC Focal Person Office/HEC Need Based Scholarship Committee.
- d) 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, SF	A2, J2, N, NM, O, S & SI
I	NON-RECURRING FEES (Payable at the time of admission)		
1	Admission Fee payable in First Year/ Readmission Fee	3,509	11,976
2	University Registration Fee	1,754	4,790
3	University Security (Refundable)	1,120	1,120
5	Library Security (Refundable)	1,120	1,120
6	Verification Fee	3,509	2,395
7	Email Registration Fee	351	240
8	Design / Survey Laboratory (DSL) Fee	10,000	10,000
9	University Student Identity Card	877	599
II	SEMESTER RECURRING FEES		
1.	Tutorial Fee	112	112
2.	Inter-University Tournament Fee	112	112
3.	Magazine Fee	168	168
4.	Medical Fee	560	560
5.	Tuition Fee	45,158	150,528
6.	Laboratory Fee	2,115	10,574
7.	Examination Fee	1,254	1,254
8.	Recreation / Sports Fee	672	672
9.	Tennis/ Squash Club Fees for Student Members only	2,240	2,240
10.	Facilities Charges	3,360 for day scholars / 1,680 for hostel residents	3,360 for day scholars / 1,680 for hostel residents
11.	Internet Charges	2,016	2,016
12.	Summer Semester Subject Registration Fee	2,240 per credit hour	7,840 per credit hour
IV	SEMESTER HOSTEL CHARGES		
1.	Room Rent (Cubicle)	3,024	6,048
2.	Room Rent (Dormitory)	1,512	3,024
3.	Fan Rent (Cubicle)	270	270
4.	Fan Rent (Dormitory)	169	169
5.	Electricity Charges (Fans) Cubicle/ Dormitory. Summer season only	907 / 605	907 / 605
6.	Electricity Charges (Lights) Cubicle/ Dormitory	1,512 / 1,210	1,512 / 1,210
7.	Sui Gas Charges	983	983
8.	Consolidated Summer Semester Charges (July & August)	8,100	8,100

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 2022**Applicable from 1st Semester (Fall 2022) until 8th/10th Semester (Spring 2026/27)**

	SUBSIDIZED (Rs)	PARTIALLY SUBSIDIZED (Rs)
First Semester (Fall)	77,767.00	201,597.00
Second Semester (Spring)	55,527.00	169,356.00
Third Semester (Fall)	55,527.00	169,356.00
Fourth Semester (Spring)	55,527.00	169,356.00
Fifth Semester (Fall)	55,527.00	169,356.00
Sixth Semester (Spring)	55,527.00	169,356.00
Seventh Semester (Fall)	55,527.00	169,356.00
Eighth Semester (Spring)	59,527.00	173,356.00
Total (8 semesters program)	470,459.00	1,391,091.00
Ninth Semester (Fall)	55,527.00	169,356.00
Tenth Semester (Spring)	55,527.00	169,356.00
Total (10 semesters program)	581,514.00	1,729,803.00

Hostel Fees Per Semester

Rs. 2,240/- charged as Refundable Hostel Security at the time of allotment.

Cubicle (Fall/Spring)	7,469 / 8,376	10,493 / 11,400
Dormitory (Fall/Spring)	5,553 / 6,158	7,065 / 7,670
Summer Semester (July & August)	8,100	8,100

Departmental Merit Position under Fully Subsidised Fee Structure-2021 (ECAT required)

Department Merit Position	Discipline	Campus
1	Mechanical Engineering	LHR
2	Computer Engineering	LHR
3	Electrical Engineering	LHR
4	Civil Engineering	LHR
5	Computer Science	LHR
6	Chemical Engineering	LHR
7	Architectural Engineering	LHR
8	Software Engineering	KSK
9	Architecture	LHR
10	Mechatronics & Control Engineering	LHR
11	Petroleum & Gas Engineering	LHR
12	City & Regional Planning	LHR
13	Mechanical Engineering	KSK
14	Computer Science	KSK
15	Automotive Engineering	LHR
16	Industrial & Manufacturing Engineering	LHR
17	Metallurgical & Materials Engineering	LHR
18	Electrical Engineering	KSK
19	Biomedical Engineering	KSK
20	Environmental Engineering	LHR
21	Chemical Engineering	KSK
22	Product & Industrial Design	LHR
23	Physics	LHR
24	Mathematics	LHR
25	Mining Engineering	LHR
26	Transportation Engineering	LHR
27	Civil Engineering	NWL
28	Computer Science	RCET
29	Chemistry	LHR
30	Polymer Engineering	LHR
31	Mechanical Engineering	RCET
32	Computer Science	NWL
33	Chemical Engineering	FSD
34	Geological Engineering	LHR
35	Electrical Engineering	FSD
36	Mechanical Engineering	NWL
37	Biomedical Engineering	NWL
38	Electrical Engineering	NWL
39	Electrical Engineering	RCET
40	Textile Engineering	FSD
41	Mechatronics & Control Engineering	FSD
42	Industrial & Manufacturing Engineering	RCET
43	Environmental Science	FSD
44	Environmental Science	KSK

**Departmental Merit Position under Fully Subsidised Fee Structure-2021
(No ECAT required)**

Department Merit Position	Discipline	Campus
1	Bachelor of Business Information Technology	LHR
2	Bachelor of Business Administration	LHR

**Departmental Merit Position under Fully Subsidised Fee Structure-2021
(For Pre-Medical Students)**

Department Merit Position	Discipline	Campus
1	Biomedical Engineering	KSK
2	Biomedical Engineering	NWL
3	Chemistry	LHR
4	Environmental Science	FSD
5	Environmental Science	KSK
6	Physics	LHR

Departmental Merit Position under Partially Subsidised Fee Structure-2021 (ECAT required)

Department Merit Position	Discipline	Campus
1	Software Engineering	KSK
2	Mechanical Engineering	LHR
3	Civil Engineering	LHR
4	Computer Science	LHR
5	Computer Engineering	LHR
6	Mechatronics & Control Engineering	LHR
7	Electrical Engineering	LHR
8	Architectural Engineering	LHR
9	Chemical Engineering	LHR
10	Architecture	LHR
11	Mechanical Engineering	KSK
12	Computer Science	KSK
13	Electrical Engineering	KSK
14	Petroleum & Gas Engineering	LHR
15	Automotive Engineering	LHR
16	Mechanical Engineering	RCET
17	Industrial & Manufacturing Engineering	LHR
18	City & Regional Planning	LHR
19	Metallurgical & Materials Engineering	LHR
20	Physics	LHR
21	Chemistry	LHR
22	Mathematics	LHR
23	Computer Science	RCET
24	Industrial & Manufacturing Engineering	RCET
25	Environmental Engineering	LHR
26	Mining Engineering	LHR
27	Polymer Engineering	LHR
28	Environmental Science	KSK
29	Transportation Engineering	LHR
30	Product & Industrial Design	LHR
31	Environmental Science	FSD
32	Geological Engineering	LHR
33	Biomedical Engineering	KSK
34	Electrical Engineering	RCET
35	Chemical Engineering	KSK
36	Mechatronics & Control Engineering	FSD
37	Chemical Engineering	FSD
38	Electrical Engineering	FSD
39	Textile Engineering	FSD

**Departmental Merit Position under Partially Subsidised Fee Structure-2021
(For Pre-Medical Students)**

Department Merit Position	Discipline	Campus
1	Biomedical Engineering	KSK
2	Chemistry	LHR
3	Physics	LHR
4	Environmental Science	KSK

SEAT ALLOCATION CHART FOR FACULTY OF ELECTRICAL ENGINEERING

Category Description	Category	Electrical Lahore	Electrical Faisalabad	Electrical KSK	Electrical RCET	Electrical Narowal	Energy Systems Engrg KSK	Computer Engrg Lahore	CS Lahore	CS KSK	CS Faisalabad	CS RCET	CS Narowal	SE KSK	BME KSK	BME NWI	Total
Open Merit (Punjab) - Subsidized	A1	94	62	51	41	33	44	35	168	80	40	40	50	44	16	26	824
Open Merit (Punjab) - Subsidized	A1-M														15	24	39
Open Merit (Punjab) Partially subsidized	A2	39	19	15	4		4	10	35	20	10	10		4	9		179
Open Merit (Punjab) Partially subsidized	A2-M														9		9
Children of Engrs, Architects, Planners	N	2															2
Non-Muslims (Punjab)	NM	2	1	1	1	1	1	1	2	2	1	1	1	1	1	1	18
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	18	2	5	2							2			53
Disabled (Punjab Domiciled)	T																
Sub-total (i)		154	98	87	49	40	51	46	205	102	51	51	51	51	51	52	1139

RESERVED SEAT ALLOCATION CHART FOR FACULTY OF ELECTRICAL ENGINEERING

Category Description	Category	Electrical Lahore	Electrical Faisalabad	Electrical KSK	Electrical RCET	Electrical Narowal	Energy Systems Engg. KSK	Computer Engg. Lahore	CS Lahore	CS KSK	CS Faisalabad	CS RCET	CS Narowal	SE KSK	BME KSK	BME NWI	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
Pak-Sri Lanka HECF	H5	1						1									2
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		Open - Upper Limit of 05 seats in each discipline – A total of 50 seats in all.						20
Sub-total (ii)		52	2	3	2	1	-	5	14	-	-	1	-	-	-	-	80
Sub-total (i)		154	98	87	49	40	51	46	205	102	51	51	51	51	51	52	1139
Grand Total		206	100	90	51	41	51	51	219	102	51	52	51	51	51	52	1219

SEAT ALLOCATION CHART FOR FACULTY OF MECHANICAL ENGINEERING

Category Description	Category	Mechanical Lahore	Mechanical KSK	Mechanical RCET	Mechanical Narowal	Mechatronics Lahore	Mechatronics Faisalabad	Automotive Engineering	IME Lahore	IME RCET	Textile Faisalabad	Total
Open Merit (Punjab) - Subsidized	A1	94	61	41	33	62	71	31	35	46	31	505
Open Merit (Punjab) Partially subsidized	A2	39	14	2		15	16	19	9	3	17	134
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	14	2	6	2	11		3			53
Disabled (Punjab Domiciled)	T											
Sub-total (i)		158	92	47	41	80	99	51	49	51	50	718

RESERVED SEAT ALLOCATION CHART FOR FACULTY OF MECHANICAL ENGINEERING

Category Description	Category	Mechanical Lahore	Mechanical KSK	Mechanical RCET	Mechanical Narowal	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
Pak-Sri Lanka HECF	H5	1										1
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)		43	2	6		1	3	0	2	1	2	60
Sub-total (i)		158	92	47	41	80	99	51	49	51	50	718
Grand Total		201	94	53	41	81	102	51	51	52	52	778

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	Environmental Science Lahore	Chemical Lahore	Chemical Faisalabad	Chemical KSK	Food Science & Technology KSK	Polymer Engg. Lahore	Metallurgical and Materials Engg. Lahore	Petroleum Engg. Lahore	Mining Engg. Lahore	Geological Engineering	Total
Open Merit (Punjab) - Subsidized	A1	94	27	23	26	38	23	52	20	61	25	31	31	20	31	35	537
Open Merit (Punjab) - Subsidized	A1-M						21				25						46
Open Merit – Partially subsidized	A2	33		11	11	10	2	14	11	29		6	8	9	5	7	156
Open Merit (Punjab) Partially subsidized	A2-M						2										2
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	1	1	1	16
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	10	5	2	2	2	10	4	4		2	1	3		1	61
Disabled (Punjab Domiciled)	T																
Sub-total (i)		150	39	40	40	51	51	80	37	96	51	40	42	34	38	44	833

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 Narawal	Architectural Engg Lahore	Transportation Engg Lahore	Environmental Engg Lahore	Chemical Lahore	Chemical Faisalabad	Chemical KSK	BS Food Science & Technology 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
Pak-Sri Lanka HECF	H5	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)		55	2	6	1		14	4	2	-	1	6	11	8	8	118
Sub-total (i)		150	39	40	40	51	80	37	96	51	40	42	34	38	43	781
Grand Total		205	41	46	41	51	94	41	98	51	41	48	45	46	51	899

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 Lahore	Chemistry KSK	Chemistry FSD	Mathematics Lahore	Mathematics KSK	Mathematics Faisalabad	Mathematics Narowal	Mathematics RCET	Physics Lahore	Physics KSK	Physics Narowal	BBA Lahore	BBA KSK	BBA FSD	BBA Narowal	BBA RCET	BBIT Lahore	Environmental Science KSK	Environmental Science FSD	Total
Open Merit (Punjab) - Subsidized	A1	26	37	25	21	22	23	41	44	47	49	49	21	22	24	150	100	100	100	100	100	23	23	1147
Open Merit (Punjab) – Subsidized	A1-M				20	22	22						20	22	25							21	21	173
Open Merit (Punjab) Partially subsidized	A2	14	13	8	2	2	2	4	4	2			2	2								2	2	59
Open Merit (Punjab) Partially subsidized	A2-M				2	2	2						2	2								2	2	14
Children of Engrs, Architects, Planners	N	1		1																				2
Non-Muslims (Punjab)	NM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	2	2	2	2	2	1	1	29
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	2	1	5	2	1	1	1	5	2	1							2	2	37
Disabled (Punjab Domiciled)	T	1		1																				2
Sub-total (i)		48	53	36	51	51	51	51	51	51	51	51	51	51	51	153	102	102	102	102	102	51	51	1463

RESERVED 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 Lahore	Chemistry KSK	Chemistry FSD	Mathematics Lahore	Mathematics KSK	Mathematics FSD	Mathematics Narowal	Mathematics RCET	Physics Lahore	Physics KSK	Physics Narowal	BBA Lahore	BBA KSK	BBA Faisalabad	BBA Narowal	BBA RCET	BBIT Lahore	Environmental Science KSK	Environmental Science FSD	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	51	51	51	51	51	51	51	51	153	102	102	102	102	102	51	51	1463
Grand Total		51	53	49	51	51	51	51	51	51	51	51	51	51	51	153	102	102	102	102	102	51	51	1479

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