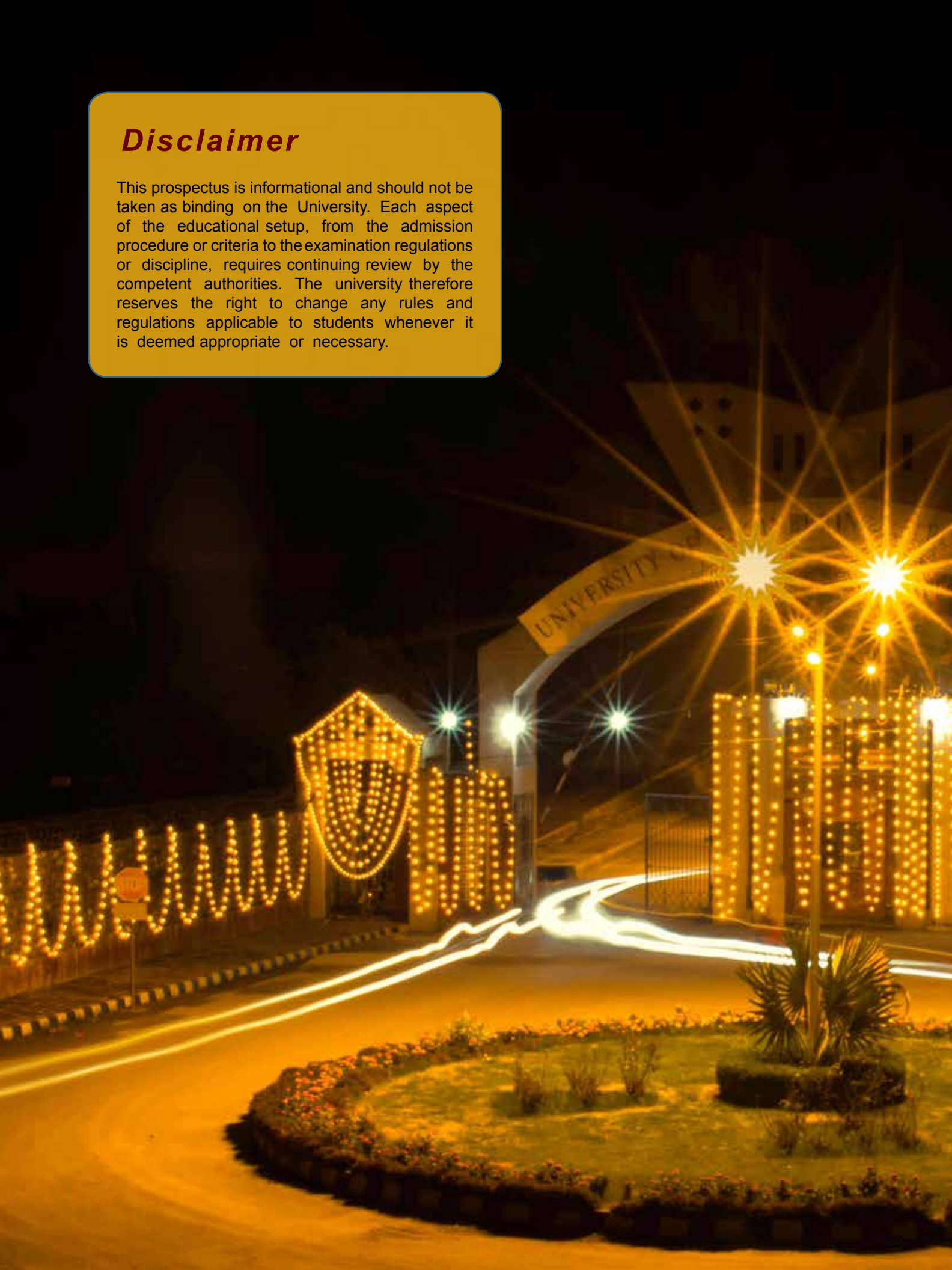
UNIVERSITY OF ENGINEERING AND TECHNOLOGY, TAXILA

www.uettaxila.edu.pk

UNDERGRADUATE PROSPECTUS 2016

Disclaimer

This prospectus is informational and should not be taken as binding on the University. Each aspect of the educational setup, from the admission procedure or criteria to the examination regulations or discipline, requires continuing review by the competent authorities. The university therefore reserves the right to change any rules and regulations applicable to students whenever it is deemed appropriate or necessary.



Vision

To be a quality conscious institution of international standing imparting knowledge in the field of engineering and applied technologies in a caring environment for the socioeconomic development of the country

Mission Statement

To fulfill the needs of the country by producing responsible graduates equipped with sound knowledge and skills along with highest moral values through conducive learning environment

Principles of Governance

i. Merit
ii. Honesty
iii. Justice
iv. Fair Play
v. Teamwork
vi. Transparency
vii. Accountability
viii. Implementation of Rule of Law

Vice Chancellor's Message

Human civilization, as we understand, has gone through different epochs. Consequently economies of different epochs have got different forms: from hunting and gathering to agrarian economy, to industrial economy, and finally to the knowledge society and economy of our day. In knowledge based economy, the capacity to create wealth and make progress depends mainly upon the type and amount of knowledge and the number of knowledgeable people a country or society has. We are currently witnessing the emergence of knowledge economy in Pakistan. The role of higher education and higher education institutions is thus pivotal for promotion and sustenance of knowledge economy. We, at UET Taxila, not only realize our role, but are also committed to serve the society and economy by creating and imparting cutting edge knowledge in the field of engineering & technology. I strongly believe that Higher Education is a public good. It means that nobody should be excluded from its access and increasing access to higher education will not diminish its benefits to others. With this vision of Higher Education, we have adopted a student centric approach and have set clear goals.

First, we want to increase access to Higher Education. Pakistan has only 8.6% access rate to higher education. In order to increase the access to Higher Education, we have been trying for last one decade not only to increase the enrollment in our existing departments, but have also started new programs and opened a sub-campus in Chakwal. Our second sub-campus will be soon established in Pind Daden Khan. Currently, we have more than 5000 students body, which was only 1000 in year 2000. Our new campuses are creating equal opportunity for the students of less developed areas and will thus reduce the class stratification in society.

Second, it is pertinent to mention here that for increasing enrolment, we never ever compromise merit. We recruit Best & Brightest students and ensure to provide them a quality learning environment. We have heavily invested to establish new and state of the art labs, new class rooms, new building, fast and reliable internet access throughout the campus, new cafeterias and hostels, and a huge collection of books in the library. We have a fleet of 23 buses to provide transportation facility to the students living in the twin cities of Rawalpindi and Islamabad and of surrounding areas.

UET Taxila is not a for-profit organization. We meet approximately only 20 % of our annual expenses through tuition fees. For the rest of our expenses, both provincial and federal governments are generously supporting us. Over and above, we offer generous merit and need based financial assistance. Last year 18% of our students received some form of financial assistance.

I consider engineering as combination of science, art, and craft. Science part is covered in class rooms by a competent faculty; 25 % of our faculty has PhD degrees. To develop the art of engineering, we frequently invite industry experts to deliver lectures to our students. These practitioners are called as industry professors and industry aces. We are also making linkages with industry and trying to fully capitalize the industrial hubs of Taxila and Hattar. To learn the craft part of engineering, we encourage and facilitate our students to get internship in industry. We have established dedicated Placement and Alumni Offices for helping students in finding jobs and internships. Our faculty is involved in joint projects with industry and making contribution in solving problems of local industry. In sum, we can claim that the education we are imparting is relevant to the needs of our industry, country, and society. We have recently added new courses of social sciences to make the soul and character of our students, to make them socially and politically responsible and active citizens. In sum, we are imparting education in diverse disciplines of engineering and technology, which has high quality, affordable, relevant for student, industry and society.

Prof. Dr. Niaz Ahmad Akhtar (SI)

CONTENTS

Organizational Setup, Services and Common Facilities, Important Telephones, Code of Ethics, Introduction, Academic Programs, Profile of the University Faculties, Services and Common Facilities, Rules and Regulations, Admission Procedures

About the University

Introduction

The antique name 'Takshasila' means the city of cut stones. Taxila has gained worldwide eminence for its archaeological sites. Once a province of the powerful Achaemenian empire, Taxila was conquered by Alexander in 327 BC. It later came under the Mauryan dynasty and attained a remarkably mature level of development under the great Ashoka. Then appeared the Indo- Greek descendants of Alexander's warriors and finally came the most creative period of Gandhara. The great Kushan dynasty was established some where near 50 AD. During the next 200 years Taxila became a renowned centre of learning, philosophy, art and religion, Jaulian being a centre of excellence or a university of that age. Pilgrims and travelers were attracted to it from as far away as China and Greece. History took a new turn around 1950 when Ordnance Factories were founded at Wah, adjacent to Taxila. The country's largest Mechanical Complex and Foundry were established at Taxila in mid sixties. In early seventies, the industrial progress attained a new dimension when Taxila was chosen to have Heavy Industries Taxila near its world famous museum. At the same time Pakistan's largest Aeronautical Complex was established at Kamra which is about 45 km from Taxila. In mid seventies, government of the Punjab found the city ideally suitable for establishing the constituent college of University of Engineering and T echnology, Lahore. Industrial progress in and around Taxila is gaining a newer pace. The neighboring industrial organizations are in the process of rapid expansion. A new industrial zone has emerged in Hattar area, which is about 20 km away from Taxila. Taxila is emerging as a leading industrial region at the national level. The strategic location is paving way for the city to act as a gateway to historical “Silk Route”.

The University

With phenomenal increase in students' enrollment in 1970's, a plan to establish additional campuses of the University of Engineering and Technology Lahore was conceived. As a result of that, the University College of Engineering Taxila was established in 1975. For three years it functioned at Sahiwal. In 1978 it was shifted to its permanent location at Taxila. The College continued its working under the administrative control of the University of Engineering and T echnology, Lahore till October 1993. During this month it received its charter as an independent university under the University of Engineering and Technology Taxila Ordinance 1993. At present total enrollment of undergraduate and postgraduate students is above 5500.

Administration

The Governor of Punjab is the Chancellor and the Education Minister of Punjab is the Pro-Chancellor of the University. The Syndicate is the governing/legislative body and the Academic Council is the highest academic body of the University. The Vice-Chancellor is the Chief Executive and Academic Officer of the University. He is assisted by Deans of Faculties, Chairmen of Departments, Directors and Principal Officers of the University – the Registrar, the Treasurer, the Controller of Examinations and the Project Director, to ensure that the provisions of the University Act, the Statutes and the Regulations are faithfully observed and implemented.

Location

The University campus is located on the outskirts of Taxila at a distance of 5 km from the city. It is situated near railway station Mohra Shah Wali Shah on Taxila-Havelian branch line. The city of Taxila is 35 km from the twincities of Islamabad and Rawalpindi on the main Rawalpindi-Peshawar highway. The University buses commute daily between the campus and the cities of Islamabad, Rawalpindi and Wah Cantt. The campus covers an area of 163 acres. All the teaching departments, residential colony for teachers/ employees, student hostels, guest house, post office and bank are housed on campus.

ORGANIZATIONAL SETUP

Chancellor
Malik Muhammad Rafique Rajwana
(Governor of the Punjab)

Pro-Chancellor
Rana Mashhood Ahmad Khan
(Minister for Education, Punjab)

Vice Chancellor
Prof. Dr. Niaz Ahmad Akhtar (SI)

Registrar
Engr. Mansoor A. Baluch

Controller of Examinations
Engr. Comdr. (R) Mubashir Nawaz, TI

Treasurer
Lt. Col. (R) Syed Muhammad Ali

Deans of Faculties

Faculty of Civil and Environmental Engineering	Prof. Dr. Mumtaz Ahmad Kamal
Faculty of Electronic and Electrical Engineering	Prof. Dr. Mohammad Ahmad Choudhry
Faculty of Mechanical and Aeronautical Engineering	Prof. Dr. Shahab Khushnood
Faculty of Telecommunication and Information Engineering	Prof. Dr. Adeel Akram
Faculty of Industrial Engineering	Prof. Dr. Mukhtar Hussain Sahir
Faculty of Basic Sciences and Humanities	Prof. Dr. Mukhtar Hussain Sahir

Chairmen of Academic Departments

Department of Civil Engineering	Prof. Dr. Hashim Nisar Hashmi
Department of Computer Engineering	Prof. Dr. Muhammad Iram Baig
Department of Electrical Engineering	Prof. Dr. Tahir Nadeem Malik
Department of Mechanical Engineering	Prof. Dr. Riffat Asim Pasha
Department of Software Engineering	Dr. Tabassam Nawaz
Department of Telecommunication Engineering	Dr. Yasar Amin
Department of Electronic Engineering	Prof. Dr. Gulistan Raja
Department of Industrial Engineering	Prof. Dr. Mirza Jahanzeb
Department of Environmental Engineering	Prof. Dr. Liaqat Ali Qureshi
Department of Computer Science	Dr. Adnan Habib
Department of Basic Sciences	Dr. Muhammad Sultan

Sub Campus Chakwal

Director Chakwal Campus	Prof. Dr. Aftab Ahmad
Chairman Department of Electronic Engineering	Dr. Yaseer Arafat Durrani
Chairman Department of Mechatronics Engineering	Dr. Amir Sultan

CHAIRPERSONS OF NON TEACHING DEPARTMENTS

Director Student Affairs
Prof. Dr. Tahir Nadeem Malik

Directror ASR & TD
Prof. Dr. Muhammad Yaqub

Director Undergraduate Studies
Prof. Dr. Mumtaz Ahmad Kamal

Director Information Technology Centre /Networks
Prof. Dr. Adeel Akram

Project Director (B&W)
Engr. Muhammad Tahir Ali

Director Telephone Exchange
Engr. Ghulam Shabbir

Director Digital Library
Dr. Nadeem Majeed Choudhary

Director Admin & Security
Lt. Col (R) Syed Muhammad Ali

Director Academics
Engr. Comdr. (R) Mubashir Nawaz, TI

Director ORIC
Dr. Muhammad Shehryar

Director Procurement
Mr. Gul Aziz Awan

Chief Editor Technical Journal
Dr. Hafiz Adnan Habib

Director Staff Development
Dr. Muzaffar Ali

Director International Linkages
Dr. Sarmad Sohaib

Director Social Entrepreneurship
Dr. Waseem Ahmad

Incharge Scholarships
Dr. Muhammad Ali Nasir

SERVICES AND COMMON FACILITIES

Chairmen of Committees

Health	Engr. Comdr. (R) Mubashir Nawaz (TI)
Library	Prof. Dr. Tahir Mahmood
Transport	Prof. Dr. Mohammad Ahmad Choudhry
Sports	Dr. Obaidullah
Masajid	Prof. Dr. Muhammad Iram Baig
Discipline	Prof. Dr. Mumtaz Ahmad Kamal
Affiliation Committee	Prof. Dr. Mumtaz Ahmad Kamal
House Allotment Committee	Prof. Dr. Mukhtar Hussain Sahir

Deputy Registrars

Establishment/Affiliation	Mr. Khalid Mehmood
Academic & Regulation	Syed Ali Hussain Naqvi
Dues & Scholarships	Mr. Muhammad Ilyas Khan
Accounts/Transport	Mr. Muhammad Nawaz

Deputy Directors

Placement/Alumni	Engr. Tauqeer Ahmad
Planning & Development	Ms. Amna Arshad
Quality Enhancment Cell	Mr. Iftikhar Ahmad
Security	Major (R) Jahangir Khan

Audit

Resident Auditor	Mr. Sher Ali

Assistant Registrars

Accounts	Mr. Shahid Saleem
Audit	Mr. Abid Mehmood Qureshi
Establishment	Mr. Ehsan Ahmad
Procurement	Mr. Usama Khalid

Health Clinic

Chief Medical Officer	Dr. Muhammad Arif Nadeem
Medical Officer	Dr. Sabahat Qudus
Medical Officer	Dr. Sadia Tanveer

Library

Librarian	Mr. Muhammad Anwar (Gold Medallist)
Dy. Librarian (Morning)	Mr. Muhammad Irfan Aslam
Asstt. Librarian (Morning)	Mr. Muhammad Mushtaq Khan
Asst. Librarian (Evening)	Mr. Malik Muhammd Safdar
Asst. Librarian	Mr. Muhammad Bashir

Sports

Director Physical Education	Mr . Muhammad Akmal Hussain




Public Information Office

Public Information Officer — Engr. Mansoor A. Baluch

Vice-Chancellor's Office

Secretary to Vice Chancellor — Syed Basharat Abbas Shah

Legal Cell

Legal Advisor — Mr. Farhat Abbas Ch. (Advocate)

Estate Office

Residant Officer/ Estate Officer — Engr. Muhammad Tahir Ali

Examinations Branch

Deputy Controller — Engr. Zakaullah

Assistant Controller — Rana Nadeem Anjum

Hostels

Senior Warden
Prof . Dr. Mohammad Ahmad Choudhary

Foreign Faculty Hostel
Mr. Muhammad Farooq Ahmad

Halls of Residence

Warden (Male)

1. Prof. Dr. Mirza Jahanzaib
2. Dr. Imran Hafeez

Resident Tutors – Iqbal (I) Hall

1. Engr. M. Irshad Yahya
2. Engr. Faisal Shehzad

Resident Tutors – Quaid-e-Azam (Q) Hall

1. Engr. Tanveer Khursheed
2. Engr. Zahid Rasheed
3. Engr. Mansoor Ashraf

Resident Tutors – Abu Bakar (AB) Hall

1. Mr. Usman Rashid
2. Engr. Zaheer Ahmed
3. Syed Zulqarnain Haider

Resident Tutor – Omar & Usman Hall

Engr. Muhammad Zeeshan

Resident Tutors – Ali Hall

1. Engr. Mubashir Ayub
2. Engr. Zaheer Abbbas

Resident Tutor - Ayesha Hall
Engr. Zunaira Huma

IMPORTANT TELEPHONE NUMBERS

Trunk Numbers: 9047 (RWP/IBD PRI port #) 400,500,600 (Operator Extensions), 9314216-23 (Taxila, 8 Lines),
Fax No: 051-9047420
The Intercom extensions are configured as Rawalpindi/Islamabad local numbers. 051-9047ddd (300 lines), where ddd stands for the 3-digit intercom extensions listed below:

	Intercom Ext. (ddd)
Vice-Chancellor	401
Secretary to the Vice-Chancellor	403, 404
Deans of Faculties	
Electrical & Electronics Engineering	533
Mechanical & Aeronautical Engineering	666
Civil & Environmental Engineering	633
Telecom. & Information Engineering	566
Industrial Engineering	825
Chairmen of Academic Departments	
Electrical Engineering	535
Electronic Engineering	720
Computer Engineering	568
Software Engineering	735
Civil Engineering	635
Environmental Engineering	795
Mechanical Engineering	668
Computer Science	573
Industrial Engineering	827
Telecommunication Engineering	765
Basic Sciences	872
Other Establishments	
Registrar	405
Deputy Registrar (Establishment)	407
Assistnat Registrar (Establishment)	408
Establishment Branch	409
Deputy Registrar Academic & Regulation	410
Academic & Regulation Branch	411
Admissions Office (Undergraduate)	412
Treasurer	413
Accounts Branch	417
Deputy Registrar (Dues & Scholarship)	421
Student Section	422
Resident Auditor	423
Controller of Examinations	428
Examination Branch	432, 433
Project Director (Building & Works)	434
Executive Engineer	436
Director Academics/QEC	492
Deputy Director QEC	493
Director Admin & Security	476
Director Physical Education	473
Director P&D	442
Deputy Director Placement	444
Legal Advisor	445
University Library	455
University Health Clinic	460
Network Centre	468
Transport Office	470
Directorate Students Affairs	472
Post Office	474
Habib Bank Ltd.	475
Senior Warden	533
Quaid-e-Azam Hall	267,277
Iqbal Hall	270,279
Ali Hall	271,280
Abubakar Hall	269,278
Umer Hall	272,281
Usman Hall	272,282
Ayesha Hall	283,274
Chakwal Campus	0543-602003, 0543-602004

CODE OF ETHICS

For the seekers and practitioners of the magnificent science of engineering

IN THE NAME OF ALLAH, THE BENEFICENT, THE MERCIFUL

- You shall be honest, faithful and just, and shall not act in any manner derogatory to the honor , in tegrity and dignity of the engineering profession.
- You shall not injure, malici-ously, directly or indirectly , the reputation or employment of another engineer, nor shall you fail to act equitably while performing professional duty .
- You shall use your knowledge and skill of engineering for human welfare, and render professional service and advance, which reflects your best professional service and advance, which reflects your best professional judgment.
- You shall not abuse your position or power , nor accept illegal gratification of any sort.
- You shall faithfully observe and fulfill all your obligations.
- You shall express your opinion on engineering or other matters in a frank, open and straight forward manner .
- Y ou shall not criticize another engineer's work without his knowledge nor malign, or injure his professional reputation.
- You shall not ridicule fellow engineers nor let one discipline of engineering derides other disciplines or professions.
- You shall not directly or indirectly discredit other engineers nor assign (derogatory) epithets to their persons or work.
- Your professional advice shall be based on full knowledge of the facts and honest conviction, and you shall not write articles or adver tise in self-laudatory or in any manner derogatory to the dignity of the profession.
- You shall ascertain facts before accepting them and shall not encourage or cause others to carry tales. Credulity is no credit.
- You shall help one another in upholding and doing that is right, and shall not associate with those who transgress and those who indulge in unethical practices.
- You shall be kind and considerate to others and shall not fail to be cooperative and accommodating.
- You shall decide matters of common professional interest by mutual consultation.

ACADEMIC PROGRAMS

The University offers B.Sc. Degree courses in Civil Engineering, Computer Engineering, Electrical Engineering, Mechanical Engineering, Software Engineering, Telecommunication Engineering, Environmental Engineering, Electronic Engineering, Industrial Engineering and Computer Science at Main Campus, Taxila.
Sub Campus Chakwal offers B.Sc. degree courses in Mechatronics and Electronic Engineering.

Exisiting Faculties & Departments

Faculty of Civil and Environmental Engineering
- Department of Civil Engineering
- Department of Environmental Engineering

Faculty of Electronics and Electrical Engineering
- Department of Electrical Engineering
- Department of Electronic Engineering

Faculty of Mechanical and Aeronautical Engineering
- Department of Mechanical Engineering

Faculty of Industrial Engineering
- Department of Industrial Engineering

Faculty of Telecommunication and Information Engineering
- Department of Computer Engineering
- Department of Software Engineering
- Department of Telecommunication Engineering
- Department of Computer Science

Faculty of Basic Sciences and Humanities
- Department of Basic Sciences

Future Programs

The Following new departments will be established under the respective faculties in near future:

Faculty of Mechanical and Aeronautical Engineering
- Department of Aeronautical Engineering
- Department of Metallurgy & Material Engineering

Faculty of Industrial Engineering
- Departmen t of Engineering Economic & Management

Faculty of Civil and Environmental Engineering
- Department of City & Regional Planning

PROFILE OF UNIVERSITY FACULTIES

FACULTY OF CIVIL AND ENVIRONMENTAL ENGINEERING 1

Dean

Prof. Dr. Mumtaz Ahmed Kamal

DEPARTMENT OF CIVIL ENGINEERING

Chairman

Prof. Dr. Hashim Nisar Hashmi

Professors

Dr. Abdul Razzaq Ghumman
BSc Engg (Lahore), MPhil (CEWRE Lahore)
PhD (Univ. of London, UK)

Dr. Mumtaz Ahmed Kamal
BSc Engg (Lahore), PhD (Queen's Univ. UK)

Dr. Hashim Nisar Hashmi
BSc Engg (Hons) (Gold Medalist) (Lahore)
PhD (Queen's Univ. UK)

Dr. Qaiser uz Zaman Khan
BSc Engg (Hons) (Gold Medalist) (Lahore)
MSc Engg (University of Leeds, UK)
PhD (Saitama University, Japan)

Dr. Liaqat Ali Qureshi
BSc Engg (Lahore)
MSc Engg (Taxila), PhD (Taxila)

Dr. Muhammad Yaqub
BSc Engg (Taxila)
MSc Engg (Taxila),
PhD (University of Manchester, UK)

Dr. Ayub Elahi
BSc Engg (Taxila), MSc Engg (Taxila)
PhD (Taxila & Queen's Univ. UK)
Post Doc. (Queen's Univ. of Belfast, UK)

Associate Professors

Dr. Imran Hafeez
BSc Engg (Lahore)
MSc Engg (Taxila)
PhD (Taxila)
Post Doc (USA)

Dr. Usman Ghani
BSc Engg (Hons) (Gold Medalist, Taxila)
MSc Engg (Taxila), PhD (Taxila & Queen Mery Univ. UK)
Post Doc (Univ. of Birmingham, UK)

Dr. Naeem Ejaz
BSc Engg (Taxila)
MSc Engg (Lahore), PhD (Taxila)

Dr. Usman Ali Naeem
BSc Engg (Taxila), MSc Engg (Taxila)
PhD (Taxila)

Dr. Jawad Hussain
BSc Engg (Taxila)
MSc Engg (Taxila)
PhD (The Univ. of Auckland, NZ)

Dr. Muhammad Fiaz Tahir
BSc Engg (Taxila)
MSc Engg (Lahore)
PhD (Taxila)

Assistant Professors

Engr. Muhammad Salman
BSc Engg (Taxila)
MSc Engg (NUST)

Dr. Faheem Butt
BSc Engg (Lahore), MSc Engg (Taxila)
PhD (The Univ. of Auckland, NZ)

Dr. Naveed Ahmad
BSc Engg (Taxila)
MSc Engg (Taxila)
PhD (Univ. of Nottingham, UK)

Dr. Faisal Shabbir
BSc Engg (Hons, Taxila),
MSc Engg (Taxila)
PhD (The Univ.of Auckland, NZ)

Engr. Shahzad Saleem
BSc Engg (Hons, Taxila)
MSc Engg (Taxila)
(On higher studies abroad)

Engr. Syed Bilal Ahmed Zaidi
BSc Engg (Hons, Taxila)
M.Sc. Engg (Taxila)
(On higher studies abroad)

Engr. Muhammad Usman Arshid
BSc Engg (Taxila)
MSc Engg (Taxila)

Engr. Mehwish Asad
BSc Engg (Taxila)
MSc Engg (Taxila)

Engr. Saqib Mehboob
BSc Engg (Taxila)
MSc Engg (Taxila)

Engr. Muhammad Saad
BSc Engg (Taxila)
MSc Engg (Taxila)

Dr. Naveed Ahmad,
BSc Engg (Hons, Taxila)
MSc Engg (Taxila)
PhD (Tokyo University)

Engr. Afaq Ahmad
BSc Engg (Hons, Taxila)
MSc Engg (Taxila)
(On higher studies abroad)

Lecturers

Engr. Qadeer Hussain
BSc Engg (Taxila)
MSc Engg (Taxila) (On higher studies abroad)

Engr. Ghufran Ahmad Pasha,
BSc Engg (Hons, Taxila)
MSc Engg (Taxila),(On higher studies abroad)

Engr. Imran Khan
BSc Engg (Taxila), MSc Engg (Taxila)

Engr. Muhammad Irslan Yaqub
BSc Engg (Taxila), MSc Engg (Taxila)

Engr. Muhammad Rameez Sohail
BSc Engg,(MP, Risalpur),MSc Engg (NUST)

Engr. Afzal Ahmed
BSc Engg (Taxila), MSc Engg (Taxila)

Engr. Usman Muhammad
BSc Engg (Taxila), MSc Engg (Taxila)

Engr. Zulfiqar Ali
BSc Engg (Taxila), MSc Engg (Taxila)

Lab Engineers

Engr. Kashif Riaz
BSc Engg (Taxila)
MSc Engg (Taxila)

Engr. Usman Rashid
BSc Engg (Taxila),

Engr. Muhammad Arshad
BSc Engg (NUST)

Engr. Syeda Ammara Asif
BSc Engg (Taxila),
MSc Engg (Taxila).

The Department

Department of Civil Engineering is actively engaged in disseminating civil engineering education for the last thirty eight years. The Department has produced several eminent engineers who have made significant contributions in the planning and execution of Civil Engineering projects at national and international level.

The Department of Civil Engineering has an approved staff strength of 37, nearly 70% contribute to postgraduate teaching and are involved in PhD research work. Approximately 745 undergraduate and 131 postgraduate (MSc Engg) students are registered in the department.

Civil engineers cater to the national needs for buildings, highways, dams, bridges, irrigation network and water supply systems, and are the world's largest users of building materials.

Courses of Study

The Department offers full-time course of four years duration leading to the Bachelors Degree in Civil Engineering. The department also offers graduate courses of study leading to the MSc and PhD degrees in Civil Engineering.

In the bachelor's course, emphasis is laid on the fundamental concepts and principles, which inbuilt the basis of civil engineering practice. To foster their creative abilities, the students are assigned projects on design, construction or laboratory investigation for self directed execution. The classroom and laboratory work is supplemented by the instructional tours to acquaint students with civil engineering projects of national importance. Survey camp is held to impart intensive field training, where the students plan and execute survey of large areas, independently.

Laboratories

The department has the following well-equipped laboratories to meet the academic requirements of students and teachers as well as the professional needs of the government and private organizations:

a. Geo- Tech Engineering
b. Concrete Technology
c. Strength of Materials
d. Transportation Engineering
e. Hydraulics/Fluid Mechanics
f. Theory of Structures/ Structural Engineering
g. Surveying
h. Public Health Engineering
i. CAD laboratory
j. Postgraduate Research Laboratory

Department upgrades the laboratories from time to time through the funds being provided by the Higher Education Commission (HEC) and its own resources. Consequently, the Transportation & Structural Engineering Laboratories have been upgraded with the state of the art equipment. Hydraulics/Fluid Mechanics Laboratory is working in new building and equipped with latest research facilities. Department is also equipped with Postgraduate Research Laboratory which has latest ample units of computers along with civil engineering software and research tools.

Taxila Institute of Transportation Engineering (TITE)

Department of Civil Engineering has established a new institute by the name of "Taxila Institute of Transportation Engineering (TITE)". It is a unique institute of its own kind in Pakistan and has proved to be a focal point for providing education and research facilities in the field of Transportation Engineering.

The institute provides facilities like research laboratories, lecture rooms for postgraduate students, conference room, computer laboratory and a library. A wide range of state of the art equipment had been procured to facilitate high tech research work.

The mission of the institute is to develop and implement innovative methods, materials, and the technologies for improving transportation efficiency, safety and reliability as well as improving the learning and innovative environment for students, faculty and staff in transportation related areas.

Postgraduate Studies & Research

In order to satisfy the increasing demand for relevant advanced technological education, the department offers full time and part time MSc degree courses in Structural Engineering, Water Resources & Irrigation Engineering and Transportation Engineering covering the most recent developments. The courses contain a balance of analytical and professional aspects and are designed to suit the needs of fresh graduates and those with professional experience.

The faculty has completed a number of research projects funded by HEC through the Directorate of Advanced Studies, Research and Technological Development. Research papers addressing applied research have been published in journals and conferences of national and international repute.

Most of the postgraduate students attached with the Construction industry and act as a bridge for university–industry linkage that makes research in the department to be practical and useful for the country. The introduction of PhD program has further enriched the research activities in the department. Twenty One students have been awarded PhD degrees in various fields. Presently about 52 PhD scholars are pursuing their PhD research work.

Research is being carried out in the following areas:

a. Structural Engineering
b. Geo Technical Engineering
c. Transportation Engineering
d. Water Resources and Irrigation Engineering

Numerical modeling and computer-application in all the research activities are being given special attention. The courses of studies have been designed on the basis of present needs of the Industry. The students are also trained to work independently for solving complex real world problems.

Courses Under Semester System
BSc Civil Engineering

1st Semester			
Course	**Course Title**	**Credit Hours**	
		Part I	**Part II**
CE-101	Civil Engineering Drawing	1	2
CE-102	Engineering Mechanics	2	1
CE-103	Engineering Geology	2	1
CE-104	Surveying-I	2	2
MA-105	Mathematics-I	3	0
	Total:	**10**	**6**
	Semester Total for Part-I & II	**16**	

2nd Semester			
Course	**Course Title**	**Credit Hours**	
		Part I	**Part II**
CE-106	Surveying-II	2	2
CE-107	Civil Engineering Materials	2	1
CE-108	Communication Skills & Technical Report Writing	1	1
CE-111	Professional English	0	2
MA-109	Mathematics-II	3	0
HU-110	Pakistan Studies	2	0
	Total:	**10**	**6**
	Semester Total for Part-I & II	**16**	
	Total for 1st Year	**32**	

3rd Semester			
Course	**Course Title**	**Credit Hours**	
		Part I	**Part II**
CE-201	Fluid Mechanics-I	2	1
CE-202	Properties of Concrete	2	1
CE-203	Civil Engineering Practice	2	1
MA-204	Mathematics and Computer Programming	2	2
HU-205	Islamic Studies	2	0
	Total:	**10**	**05**
	Semester Total for Part-I & II	**15**	

4th Semester			
Course	**Course Title**	**Credit Hours**	
		Part I	**Part II**
CE-206	Theory of Structures-I	3	1
CE-207	Strength of Materials-I	2	1
CE-208	Soil Mechanics-I	2	1
CE-209	Drawing, Estimation & Construction	1	3
HU-210	Computer Applications	2	2
	Total:	**10**	**8**
	Semester Total for Part-I & II	**18**	
	Total for 2nd Year	**33**	

5th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
CE-301	Theory of Structures-II	3	1
CE-302	Strength of Materials-II	3	1
CE-303	Soil Mechanics-II	2	2
CE-304	Construction Planning & Management	2	1
CE-305	Hydrology and Water Resources	2	1
	Total:	**12**	**6**
	Semester Total for Part-I & II	**18**	

6th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
CE-306	Environmental Engineering-I	2	1
CE-307	Reinforced Concrete-I	3	1
CE-308	Design of Steel Structures	2	1
CE-309	Fluid Mechanics-II	2	1
CE-310	Transportation Engineering-I	2	2
	Total:	**11**	**6**
	Semester Total for Part-I & II	**17**	
	Total for 3rd Year	**35**	

7th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
CE-401	Environmental Engineering-II	2	1
CE-402	Reinforced Concrete-II	3	1
CE-403	Hydraulics Engineering	2	1
CE-404	Transportation Engineering-II	2	1
CE-405	Foundation Engineering	2	1
CE-406(A)	Project	0	2
	Total:	**11**	**7**
	Semester Total for Part-I & II	**18**	

8th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
CE-407	Structural Engineering	2	1
CE-408	Irrigation Engineering	2	1
CE-409	Design of Structures	1	3
CE-410	Computer Aided Analysis & Design	1	2
CE-406(B)	Project	0	2
	Total:	**06**	**09**
	Semester Total for Part-I & II	**15**	
	Total for Final Year	**33**	
	Grand Total for Four Years	**133**	

DEPARTMENT OF ENVIRONMENTAL ENGINEERING

Chairman

Prof. Dr. Liaqat Ali Qureshi

Professor

Dr. Liaqat Ali Qureshi
BSc Engg (UET, Lahore)
MSc Engg (UET, Taxila)
PhD (UET, Taxila)

Associate Professors

Dr. Naeem Ejaz
BSc Engg (Taxila)
MSc Engg (Lahore)
PhD (Taxila)

Assistant Professors

Engr. Sidra Iftikhar
BSc Environmental Engg (UET, Lahore)
MSc Environmental Engg (UET, Lahore)
(On higher studies abroad)

Dr. Sadia Nasreen
MSc Environmental Chemistry (FJWU,Rwp)
MS Environmental Sciences (COMSATS,Abbotabad)
PhD Environmental Engg (China)

Engr. Shamas Tabraiz
BSc Environmental Engg (UET, Lahore)
MSc Environmental Engg (UET, Lahore)

Lecturers

Engr. Rasikh Habib
BSc Environmental Engg (NUST, Islamabad)
MSc Environmental Engg (NUST, Islamabad)

Engr. Sadia Fida
BSc Environmental Engg (UET, Lahore)

Engr. Babar Abbass
BSc Environmental Engg (NUST, Islamabad)

Engr. Muhammad Zeeshan
BSc Environmental Engg (UET, Lahore)

Engr. Abaid Ullah
BSc Environmental Engg (UET, Taxila)
MSc Engg Management (UET, Taxila)

Engr. Bilal Asif
BSc Environmental Engg (UET, Taxila)

Lab Engineers

Engr. Nayaab Zahra
BSc Environmental Engg (UET, Lahore)

Engr. Aasma Imam Kahn
BSc Environmental Engg (UET, Taxila)

Engr. Arfa Iqbal
BSc Environmental Engg (UET, Lahore)

Shared Faculty

Prof. Dr. Niaz Ahmad
PhD Chemical Engg (Leads, UK)

Dr. Mumtaz Ahmad Kamal
(Professor, CED)

Dr. Tahir Mehmood
(Professor, EED)

Dr. Muhammad Tauqeer
(Assistant Professor, BSD)

Dr. Azeem Shahzad
(Assistant Professor, BSD)

Engr. Muhammad Saad
(Assistant Professor, CED)

MS. Freeha Zaheer
(Lecturer, BSD)

Engr. Haji Bahader Kahn
(Lecturer, IED)

Engr. Muhammad Usman
(Lecturer, MED)

Engr. Muhammad Wasim
(Lab Engg, EED)

Engr. Muhammad Arshad
(Lab Engg, CED)

The Department

The Department of Environmental Engineering was started in 2010 with an enrollment of 45 undergraduate students per year. The department is working under the Faculty of Civil & Environmental Engineering. The department is equipped with laboratories including Environmental Analytical techniques Lab, Environmental Microbiology Lab, Water & Waste Water Engineering Lab, Air & Noise Pollution Lab, Environmental Chemistry Lab and Advance Analytical Lab which cater for the experimental and project works. The department employs highly qualified faculty with diverse backgrounds and research interests.

Courses of Study

The Department of Environmental Engineering offers fulltime course of four years duration, leading to the bachelor degree in Environmental Engineering. The courses are built on a strong foundation of mathematical, physical, computing sciences and civil engineering. Emphasis is laid on the fundamental concepts and principles, which constitute the basis of environmental engineering practice. The curriculum is designed to cover a broad range of areas. The department offers a series of courses in the following areas:

- Environmental Engineering Lab. Techniques
- Geo Graphical information Systems
- Water Supply and Sewerage Network Design
- Environmental Management Systems
- Membrane Based Treatment Technologies
- Solid & Industrial Waste Management
- Air & Noise Pollution Control
- Environmental Impact Assessment and Management
- Water & Waste water Treatment and Design

The provided course contents are highly professional and well arranged. The designed course content will support the graduates to enhance their knowledge up to the international standards.

Future Plans

The Department will offer Master and Doctoral Programmes in the field of Environmental Engineering in near future.

Courses Under Semester System
BSc Environmental Engineering

1st Semester			
Course	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EN-111	Introduction to Environmental Engineering	3	0
EN-112	Environmental Chemistry	2	1
BH-113	Engineering Calculus	3	0
CE-114	Engineering Drawing	1	2
CS-115	Introduction to Computer Programming	1	2
BH-116	Islamic Studies	2	0
	Total:	**12**	**5**
	Semester Total for Part-I & II	**17**	

2nd Semester			
Course	**Course Title**	**Credit Hours**	
		Part I	**Part II**
CE-121	Engineering Mechanics	2	1
CE-122	Surveying and Leveling	2	2
BH-123	Introduction to Microbiology	3	0
BH-124	Linear Algebra and Differential Equations	3	0
BH-125	Communication Skills	2	0
EE-126	Electrical Technology	2	1
	Total:	**14**	**4**
	Semester Total for Part-I & II	**18**	
	Total for 1st Year	**35**	

3rd Semester			
Course	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EN-211	Environmental Microbiology	2	1
CE-212	Strength of Materials	2	1
CE-213	Soil Mechanics	2	1
BH-214	Environment and Human Interaction	2	0
BH-215	Numerical Analysis	3	0
BH-216	Pakistan Studies	2	0
	Total:	**13**	**03**
	Semester Total for Part-I & II	**16**	

4th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EN-221	Environmental Engineering Lab. Techniques	1	2
EN-222	Environmental Ecology	3	0
CE-223	Transportation Engineering	2	1
BH-224	Probability and Statistics	3	0
CE-225	Fluid Mechanics	2	1
CE-226	Introduction to GIS and RS	2	1
	Total:	**13**	**05**
	Semester Total for Part-I & II	**18**	
	Total for 2nd Year	**34**	

5th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EN-311	Water Supply and Sewerage Network Design	2	2
MA-312	Thermodynamics	2	1
CE-313	Structural Analysis	2	1
CE-314	Hydrology and Water Resource Management	3	0
EN-315	Environmental Management System	3	0
CE-316	Project Planning and Management	2	0
	Total:	**14**	**04**
	Semester Total for Part-I & II	**18**	

6th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EN-321	Water Treatment and Design	3	1
BH-322	Engineering Economics	2	0
EN-323	Environmental Impact Assessment and Management	3	0
EN-324	Solid Waste Management	3	0
EN-325	Air & Noise Pollution Control	3	1
BH-326	Technical Report Writing	2	0
	Total:	**16**	**2**
	Semester Total for Part-I & II	**18**	
	Total for 3rd Year	**36**	

7th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EN-411	Environmental Modeling	3	0
EN-412	Wastewater Treatment and Design	3	1
EN-413	Occupational Health and Safety	3	0
EN-414	Contaminated Site Remediation	3	0
MS-415	Professional Ethics	2	0
EN-416	Final Year Project-I	0	3
	Total:	**14**	**04**
	Semester Total for Part-I & II	**18**	

8th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EN-421	Industrial Waste Management	3	0
MS-422	Entrepreneurship	2	0
EN-423	Renewable Energy Resources	3	0
EN-424	Membrane based treatment technologies	2	0
EN-425	Final Year Project-II	0	3
	Total	**10**	**03**
	Grand Total Part I & II	**13**	
	Grand Total for Final Year	**31**	
	Grand Total for Four Years	**136**	

FACULTY OF ELETRONICS AND ELECTRICAL ENGINEERING 2

Dean

Prof. Dr. Mohammad Ahmad Choudhry

DEPARTMENT OF ELECTRICAL ENGINEERING

Chairman

Prof. Dr. Tahir Nadeem Malik

Professors

Dr. Mohammad Ahmad Choudhry
BSc Engg (Lahore)
MSc Engg (GWU, USA)
PhD Engg (Virgina Tech, USA)

Dr. Ahmad Khalil Khan
BSc Engg (Lahore)
MSc Engg(USA), PhD (Taxila)
MIEP, MIEEP, MIEEE (USA)

Dr. Tahir Nadeem Malik
BSc Engg (Lahore)
MSc Engg (Lahore) , PhD (Taxila)
MIEEE (USA)

Dr. Aftab Ahmad
BSc Engg (Lahore)
MSc Engg (Lahore), PhD (Taxila)

Dr. Tahir Mahmood
BSc Engg (Hons) (Lahore)
MSc Engg (Lahore) , PhD (Taxila)
MIEE (UK)

Associate Professors

Dr. Salman Amin
BSc Engg (Hons) (Taxila)
MSc Engg (Taxila)
PhD (Taxila)

Assistant Professors

Engr. Ilyas Ahmad
BSc Engg (Peshawar), MSc Engg(Taxila)

Dr. Inamul Hasan Shaikh
BSc Engg. (Hons) (Lahore)
MSc Engg.(Taxila)
PhD (UK)

Dr. Shabbir Majeed Chaudhry
BSc Engg (Taxila)
MSc Engg (Taxila), PhD (Taxila)
MIEEE (USA), MIEE (UK), MIEP

Dr. M. Irfan Arshad
BSc Engg (Taxila)
MSc Engg (Taxila), PhD (Taxila)

Dr. Sarmad Sohaib
BSc Engg (GIKI)
PhD (UK)

Engr. Sh. Saaqib Haroon
BSc Engg (Lahore)
MSc Engg (Taxila)

Engr. Tahir Muhammad
BSc Engg (Canada)
MSc Engg (Taxila),(on Higher Studies Abroad)

Engr. Junaid Mir
BSc Engg (Taxila)
MSc Engg (Taxila) (on Higher Studies Abroad)

Engr. Ghulam Ali
BSc Engg (Taxila)
MSc Engg (NUST)

Engr. Faisal Nadeem
BSc Engg (Islamabad)
MSc Engg (Taxila)

Dr. Intisar Ali Sajjad
BSc Engg (Lahore)
MSc Engg (Taxila), PhD (Italy)

Dr. Syed Azhar Ali Zaidi
BSc Engg (Taxila)
MSc Engg (Taxila), PhD (Italy)

Lecturers

Engr. Hammad Shaukat
BSc Engg (Taxila)
MSc Engg (Taxila)

Engr. Syed M. Bilal
BSc Engg (Taxila)
MSc Engg (Taxila) (on Higher Studies Abroad)

Engr. Mamoona Khalid
BSc Engg (Hons) (Taxila)
MSc Engg (Taxila)

Engr. Munira Batool
BSc Engg (Multan)
MSc Engg (Taxila),(on Higher Studies Abroad)

Engr. Mehroz Iqbal
BSc Engg (Taxila)
MSc Engg (Taxila)

Engr. Mansoor Ashraf
BSc Engg (Taxila)
MSc Engg (Taxila)

Engr. Faisal Siddiq
BSc Engg (Taxila)
MSc Engg (Taxila)

Engr. Abubakar Waqas
BSc Engg (Taxila)
MSc Engg (Taxila)

Engr. Nouman Qamar
BSc Engg (Taxila)
MSc Engg (Taxila)

Engr. Tanveer Khursheed
BSc Engg (PU, Lahore)
MSc Engg (Taxila)

Engr. Huma Iqbal
BSc Engg (Lahore)
MSc Engg (Lahore)

Lab Engineers

Engr. Zunaira Huma
BSc Engg (Taxila)
MSc Engg (Taxila)

Engr. Farzana Kousar
BSc Engg (Taxila)

Engr. Habib ur Rehman Habib
BSc Engg (Taxila)
MSc Engg (Taxila)

Engr. Wasif Tabbassum
BSc Engg (IU Bahawalpur)

Engr. Usama Ashfaq
BSc Engg (Taxila)

Engr. Muhammad Waseem
BSc Engg (Taxila)

Engr. Komal Munir
BSc Engg (Taxila)

Engr. Muhammad Aleem Zahid
BSc Engg (Islamabad)

Engr. Hafiz Mehboob Riaz
BSc Engg (Taxila)

The Department

Vision

- Aspiring for a better world for next generation

Objectives

- To Strive for Excellence in Electrical Engineering with Values.
- To address the challenges of market / industry.
- To prepare the students for advance learning & research in the field of Electrical Engineering.

Core Values

- Integrity
- Self Discipline
- Cognition
- Team Spirit

The Department of Electrical Engineering was established in 1975 with creation of University College of Engineering & Technology, Taxila at Sahiwal. In 1978, the college was shifted to its permanent location at Taxila. The Electrical Engineering program provides basic preparation for a career in the discipline of Electrical Engineering. The department aims to develop abilities in the students for the application of the knowledge of Electrical Engineering. The students are provided with an educational foundation that prepares them for leadership roles along diverse career paths in the fields concerned with Electronics, Communications, Energy & Power Systems, and Industrial IT: Control & Automation. Presently 200 undergraduate students are enrolled annually. The department has produced more than 2500 graduate students so far.

The undergraduate program offers degree in “Bachelor of Science in Electrical Engineering” with following streams:

- Power
- Communication

An independent and spacious building with a covered area of 66,100 sq.ft is available for the department. The department has three blocks namely: Main Block, Extension Block and Laboratory Block.

Laboratories and other Facilities

The Electrical Engineering Department has following fourteen well equipped laboratories::

a. Basic Electrical Engineering Lab
b. Computer Lab
c. Computer Simulation Lab
d. Control Lab
e. Digital Systems Lab
f. Electrical Machines Lab
g. Electronics Lab
h. Instrumentation and Measurements Lab
i. Microwave & Communication Lab
j. Multimedia & Vision Lab
k. Optoelectronics Lab
l. Power Systems Lab
m. Power Electronic Lab
n. Workshop & Projects Lab

These laboratories are upgraded as and when required.

Courses of Study

The Electrical Engineering curriculum develops a thorough understanding of the physical and mathematical principles underlying basic electrical processes and devices and provides students with a foundation in basic science, mathematics and the humanities. Written and oral communication skills are emphasized and developed. The computer as a tool for mathematical analysis, design, data analysis and instrumentation is extensively used.

Most of the courses have an integrated laboratory component which is supported by modern laboratories and state-of-the-art equipment and computers. Strong emphasis is placed on “hands-on” experience. Laboratory projects are encouraged in second and third years whereas final year projects are assigned keeping in view the industrial problems and in most of the cases in consultation with industrial experts. The campus is located in an industrial environment and the students have a fair chance of industrial visits.

The courses in Electrical Engineering include core

and elective courses. The Elective Courses are included in the program to provide more breadth to the knowledge. In 3rd and 4th years, the students have to register for the Elective Courses according to their interests. Our degree is highly regarded by industry and independent assessors. The program is accredited by the Pakistan Engineering Council as satisfying the academic requirements for Registred Engineer (RE) status.

Postgraduate Studies & Research

The department started its postgraduate program in 1984 and doctoral study program in 2001. Until now 356 MSc and 28 PhDs have been produced. The postgraduate program offers a degree in "Master of Science in Electrical Engineering" with specializations in

- Electrical Power Systems
- Communication Systems
- Energy Systems
- Control Systems
- Electro Magnetics
- Power Electronics

The master degree courses are aimed at bringing the students abreast with the most recent developments in their fields of specialization. These courses are offered both for the part time as well as the full-time students. At present 26% students are enrolled in full-time and 74% students are enrolled in the part time program. Most of the part time students are working with major engineering organizations of the country.

The faculty members and postgraduate students are actively involved in research.

The Department regularly arranges conferences, seminars and workshop in various areas of electrical engineering. The faculty members, postgraduate students and prominent researchers from Pakistan and abroad participate in these seminars. The department has a well-stocked and up to date library for use of the teachers and postgraduate students.

Courses of Study for Undergraduate Program
BSc Electrical Engineering (Power/Communication)

1st Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EE-111	Linear Circuit Analysis	3	1
EE-112	Engineering Drawing	0	1
NS-113	Calculus and Analytic Geometry	3	0
CS-114	Introduction to Programming	3	1
NS-115	Applied Physis	3	0
HU-116	Communication Skills	3	0
	Total:	**15**	**3**
	Semester Total for Part-I & II	**18**	

2nd Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EE-121	Digital Logic Design	3	1
EE-122	Electronic Devices & Circuits	3	1
EE-123	Workshop Practice	0	1
CS-124	Data Structures and Algorithms	3	1
NS-125	Linear Algebra	3	0
HU-126	Islamic Studies	2	0
	Total:	**14**	**4**
	Semester Total for Part-I & II	**18**	
	Total for First Year	**36**	

3rd Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EE-211	Microprocessor Systems	3	1
EE-212	Electrical Machines	3	1
HU-213	Technical Writing	3	0
NS-214	Differential Equations	3	0
IDE-215	Engineering Mechanics	3	0
	Total:	**15**	**2**
	Semester Total for Part-I & II	**17**	

4th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EE-221	Eletrical Network Analysis	3	1
EE-222	Probability Methods in Engineering	3	0
NS-223	Multivariable Calculus	3	0
NS-224	Numerical Analysis	3	0
IDE-225	Thermodynamics	3	0
	Total:	**15**	**1**
	Semester Total for Part-I & II	**16**	
	Total for Second Year	**33**	

5th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EE-311	Signals and Systems	3	1
EE-312 / EE-313	Power Distribution and Utilization / Computer Communication Networks	3	1
EE-314	Electromagnetic Field Theory	3	0
EE-315 / EE-316	Instrumentation & Measurements / Electronic Circuit Design	3	1
HU-317	Pakistan Studies	2	0
	Total:	14	3
	Semester Total for Part-I & II	**17**	

6th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EE-321	Linear Control Systems	3	1
EE-322	Communication Systems	3	1
MS-323	Engineering Economics and Management	3	0
EE-324	Depth Elective-I	3	1
EE-32##	Depth Elective-II	3	1
	Total:	**15**	**4**
	Semester Total for Part-I & II	**19**	
	Total for Third Year	**36**	

7th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
MS-411	Entrepreneurship	3	0
HU-412	Critical Thinking	3	0
EE-413	Senior Design Project-I	0	3
EE-41##	Depth Elective-III	3	1
	Total	**9**	**4**
	Semester Total for part- I & II	**13**	

8th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
HU-421	Organizational Behavior	3	0
EE-422	Senior Design Project-II	0	3
EE-42##	Depth Elective -IV	3	1
EE-42##	Depth Elective -V	3	1
	Total:	**9**	**5**
	Semester Total for Part-I & II	**14**	
	Total for Forth Year	**27**	
	Total Credit Hours	**132**	

List of Electives

Power (EE ##3#)

A. Power Generation
B. Powr Transmission
C. Power System Protection
D. Power System Planning
E. Power System Analysis
F. Power system Economics and Management
G. Power System Operation and Control
H. Artificial Intelligence Tools
I. Fundamentals of High Voltage Engineering
J. Electrical Estaimation Installation and Planning
K. Distributed Generation
L. Alternate Energy Systems
M. Energy Storage Systems
N. Automotive Electrical Systems
O. Hybrid Energy Systems
P. Illumination Engineering
Q. Electrical Machine Modeling
R. Electrical Traction System
S. Digital Signal Processing

Communication (EE ##4#)

A. Optical Fiber Communication
B. Satellite Communication
C. Information Theory & Coding
D. Wrieless Communication
E. Digital Commuication
F. Cellular Mobile Communication Systems
G. Multi Media Communication
H. RF Communication System Design
I. Microwave Communication System Design
J. Microwave Devices and Systems
K. Microwave Transmission Lines & Wave guides
L. Microwave Integrated Circuit Design
M. RF Circuit Design
N. Radar Systems
O. Broad Band Digital Networks
P. Radiating systems and Antennas
Q. RF Transceiver Design
R. Communication Electronics
S. Communication System Design & Performance Analysis
T. Introducation to Wavelets
U. Digital Signal Processing

Note:

I. Choice of Electives in 6th, 7th & 8th semester will be dependent on Elective chosen in 5th semester. No student can change the specialization area after choosing any of two areas above in his 5th Semester.

II. The Elective courses offered by the Department in a semester can be changed depending on the availability of teachers and related facilities and will be notified one week before the start of the semester.

DEPARTMENT OF ELECTRONIC ENGINEERING

Chairman

Prof. Dr. Gulistan Raja

Professors

Dr. Muhammad Javed Mirza
BSc Engg (PAF CAE, Karachi)
MSc Engineering (KFUMPM, KSA), PhD (OSU, USA)

Dr. Gulistan Raja
BSc Engg (Taxila)
MSc Engineering (Osaka Uni.Japan)
PhD (Taxila)

Assistant Professors

Dr. Muhammad Obaid Ullah
BSc Engg (Taxila)
MSc Engg (Taxila)
PhD (UM, UK)

Dr. Ahsan Ali
BSc Engg (Taxila)
MSc Engg (Taxila)
PhD (TUH, Germany)

Dr. Nadeem Anjum
MCS (IIU, Islamabad)
MSc Engg (QMU, London)
PhD (QMU, London)

Dr. Muhammad Imran Khan
BSc Engg (NUST)
MSc Engg (Chalmers Uni. of Tech.,Sweden)
PhD Engg (USTC, Hefei, China)

Lecturers

Engr. Adil Usman
BSc Engg (Air Univ, islamabad)
MSc Engg (Air Univ, Islamabad)

Engr. Syed Zohaib Hassan Naqvi
BSc Engg (IIUI)
MSc Engg (IIUI)
MBA (VU)

Engr. Qummar Zaman
BSc Engg (IIUI)
MSc Engg (UET, Taxila)

Engr. Muhammad Faraz
BSc Engg (IIUI)
MSc Engg (UET, Taxila)

Engr. Kamran Javed
BSc Engg (UET,Taxila)
MSc Engg (UET, Taxila)

Lab Engineers

Engr. Muhammad Atif Imtiaz
BSc Engg Engg (MAJU)
MSc Engg (UET, Taxila)

Engr. Muhammad Umar Khan
BSc Engg (COMSATS)

Engr. Shujaat Hussain Shah
BSc Engg (UET,Peshawar)

Engr. Soma Qureshi
BSc Engg (UET,Taxila)

Engr. Hafiza Misbah Younis
BSc Engg (UET,Taxila)

Engr. Sumair Aziz
BS Engg (IIUI)

The Department

The Department of Electronic Engineering started in 2010 with an enrollment of 60 undergraduate students per year. The department is housed in the historic building of laboratory block. Laboratory block is the first building of this campus constructed in 1977. The building is recently renovated to accomodate Electronic Engineering Department. The current enrolment of the department is 45 undergraduate sutdents per year.

The department is equipped with laboratories including Electronics Lab, Digital Systems Lab, Computer Lab, Control Lab, Automation Lab and ASIC & DSP Lab which cater for the experimental and project works. The department employs highly qualified faculty with diverse background and research interests.

The objective of the program is to produce skillful engineers to meet the technological challenges of the modern age. The degree program is aimed to meet the following education objectives:

- *To produce gradutes capable of developing innovatiove solutions, analysis, and design of electronic systems with their applications.*
- *To produce graduates exhibiting leadership with effective contribution towards the uplift of their profession and society through awareness abut professional ethics.*
- *To produce graduates who are willing to pursue continuous professional development for updating and expanding their knowledge base.*

Courses of Study

In all matters regarding courses of study and others, the department strictly follows the policies and guidelines of Higher Education Commission and Pakistan Engineering Council .

Courses of Study for Undergraduate Program
BSc Electronic Engineering

1st Semester			
Code	**Course Title**	**Credit Hours**	
		part-I	**Part-II**
BH-111	Functional Engilish	3	0
BH-112	Calculus and Analytical Geometry	3	0
BH-113	Applied Physics	3	0
CS-114	Introduction to Computers	2	1
EN-115	Basic Electronic Engineering	3	1
	Total	**14**	**2**
	Semester Total for Part -I & II	**16**	

2nd Semester			
Code	**Course Title**	**Credit Hours**	
		part-I	**Part-II**
BH-121	Communication Skills	3	0
BH-122	Pakistan Studies	2	0
BH-123	linear Algebra	3	0
BH-124	Chemistry	3	0
CS-125	Computer Programming	2	1
EN-126	Circuit Analysis-I	3	1
	Total	**16**	**2**
	Semester Total for Part -I & II	**18**	
	Total for 1st Year	**34**	

3rd Semester			
Code	**Course Title**	**Credit Hours**	
		part-I	**Part-II**
BH-211	Differential Equations	3	0
EN-212	Computer - Aided Engineering Design	0	1
EN-213	Electronic Circuit Design	3	1
EN-214	Circuit Analysis-II	3	1
EN-215	Digital Logic Design	3	1
	Total:	**12**	**4**
	Semester Total for Part -I & II	**16**	

4th Semester			
Code	**Course Title**	**Credit Hours**	
		part-I	**Part-II**
BH-221	Complex Variables and Transforms	3	0
EN-222	Proability and Random Variables	3	0
EN-223	Electric Machines	3	1
EN-224	Electromgnetic Field Theory	3	0
EN-225	Microprocessors & Microcontrollers	3	1
	Total:	**15**	**2**
	Semester Total for Part -I & II	**17**	
	Total for 2nd Year	**33**	

5th Semester			
Code	**Course Title**	**Credit Hours**	
		Part-I	**Part-II**
BH-311	Technical Report Writting & Presentation Skills	3	0
BH-312	Sociology	3	0
EN-313	Integrated Electronic	3	1
EN-314	Signal Processing	3	1
EN-315	Instrumentation and Measurements	3	1
	Total:	**15**	**3**
	Semester Total for Part-I & II	**18**	

6th Semester			
Code	**Course Title**	**Credit Hours**	
		Part-I	**Part-II**
BH-321	Islamic Studies	2	0
BH-322	Psychology	3	0
BH-323	Engineering Economics	3	0
EN-324	Analog & Digital Commincations	3	1
EN-325	Control Systems	3	1
	Total:	**14**	**2**
	Semester Total for Part-I & II	**16**	
	Total for 3rd Year	**34**	

7th Semester			
Code	**Course Title**	**Credit Hours**	
		Part-I	**Part-II**
MS-411	Engineering Management	3	0
EN/CS-4xx	Elective-I	3	1
EN/CS-4xx	Elective-II	3	0/1
EN/CS-4xx	Elective III	3	0/1
EN-499A	Electronic Engineering Project	0	3
	Total:	**12**	**4/6**
	Semester Total for Part-I & II	**16/18**	

8th Semester			
Code	**Course Title**	**Credit Hours**	
		Part-I	**Part-II**
MS-421	Professional and Social Ethics	3	0
EN/CS-4xx	Elective-IV	3	1
EN/CS-4xx	Elective-V	3	0/1
EN-499-B	Electronic Engineering Project	0	3
	Total	**9**	**4/5**
	Semester Total for Part-I & II	**13/14**	
	Total For Final Year	**29 ~ 32**	
	Grand Total for Four Year	**130 ~133**	

Abbreviations Used:
BH: Basics Sciences & Humanities
CS: Computer Sciences
EN: Electronic Engineering
MS: Management Sciences

List of Elective Courses

BH-426 Numerical Methods	(3+0)
EN-427 Power Electronics	(3+1)
EN-428Industrial Electronics	(3+1)
EN-429 Linear Control System	(3+1)
EN-430 Digital Control System	(3+1)
EN-431 Industrial Control System	(3+1)
EN-432 Industrial Automation	(3+1)
EN-433 Introduction to Robotics	(3+1)
EN-434 Process Measurement Engineering	(3+1)
EN/CS-435 Introduction to Neural Networks	(3+0)
EN/CS-436 Artificial Intelligence	(3+1)
EN-437 Mechatronic Applications	(3+0)
EN/CS-438 Fuzzy Logic and Simulation	(3+0)
EN-439 Biomedical Instrumentation	(3+1)
EN-440 Biomedical Signal Analysis	(3+1)
EN-441 Medical Imaging	(3+1)
EN-442 Digital System Design	(3+1)
EN-443 Microelectronic Technology	(3+0)
EN-444 VLSI Design	(3+1)
EN-445 FPGA Based System Design	(3+1)
EN-446 Embedded System Design	(3+1)
EN-447 Computer Architecture	(3+1)
EN-448 Microcomputer Systems	(3+1)
EN-449 Hardware Software Codesign Techniques	(3+0)
EN-450 Digital Instrumentation Systems	(3+1)
EN-451 Laser and Fiber Optics	(3+0)
EN-452 Wireless Sensor Networks	(3+0)
EN-453 Filter Design	(3+1)
EN-454 Digital Signal Processing	(3+1)
EN/CS-455 Digital Image Processing	(3+1)
EN-456 Digital Speech Processing	(3+1)
EN/CS-457 Pattern Recognition and Matching	(3+0)

FACULTY OF MECHANICAL AND AERONAUTICAL ENGINEERING 3

Dean
Prof. Dr. Shahab Khushnood

DEPARTMENT OF MECHANICAL ENGINEERING

Chairman
Prof. Dr. Riffat Asim Pasha

Professors

Dr. Shahab Khushnood
BSc Engg (Hons) (Gold Medalist) (UET Lahore)
MSc Engg (UET Lahore)
PhD (NUST)
MBA (Marketing) (AIOU)

Dr. M. Shahid Khalil
BSc Engg (UET Lahore)
PhD (Sheffield, UK)
PGD(Quality), PGD(HRM)

Dr. Khawaja Sajid Bashir
BSc Engg (UET Lahore)
MSc Engg (UET Lahore)
PhD (UET Taxila)
MBA (Marketing) (AIOU)

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MSc Engg (UET Taxila)
PhD (UET Taxila)

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BSc Engg (UET Taxila)
MSc Engg (UET Taxila)
PhD (UET Taxila)

Dr. Muhammad Ali Nasir
BSc Engg (UET Taxila)
MSc Engg (UET Taxila)
PhD (UET Taxila)

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Engr. Khalid Masood Khan
BSc Engg (UET Lahore)
MSc Engg (Birmingham, UK)

Engr. Zahid Suleman Butt
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MSc Engg (UET Taxila)

Engr. Muhammad Kashif Iqbal
BSc Engg (Hons) (UET Taxila)

Dr. Tanzeel-ur- Rashid
BSc Engg (UET Taxila)
MSc Engg (UET Lahore)
PhD (UET Taxila)

Engr. Muddasar Khan
BSc Engg (UET Taxila)
MSc Engg (NUST)
(on higher studies abroad)

Engr. Abdul Mobeen
BSc Engg (UET Lahore)
MSc Engg (Germany)

Dr. Muhammad Shehryar
BSc Engg (NUST)
MSc Engg (France)
PhD (France)

Dr. Masood ur Rahman
BSc Engg (UET Taxila)
MSc Engg (France), PhD (France)

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MSc Engg (UET Taxila)

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BSc Engg (NED)

Engr. Aneela Anum
BSc Engg (UET Taxila)
MSc Engg (UET Taxila)

Engr. M. Sajjad Sabir
BSc Engg (NUST)
MSc Engg (NUST)

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Engr. Waqas Asghar
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Engr. Muhammad Usman
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Engr. Najam ul Hasan
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Engr. Rubab Arshad
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MSc Engg (Taxila)

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MSc Engg (PIEAS, Islamabad)

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MSc Engg (UET Lahore)

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MSc Engg (NUST ,Islamabad)

Engr. Muhammad Adnan
BSc Engg (UET, Taxila)

Lab Engineers

Engr. Muhammad Ahmed
BSc Engg (UET Taxila)

Engr. Muhammad Imran
BSc Engg (UET Taxila)

Engr. Ishaq Ahmad
BSc Engg (UET Taxila)

Engr. Hafiz Muhammad Habib
BSc Engg (UET Taxila)

Engr. Sullah ud Din
BSc Engg (UET Taxila)

Engr. Rehan Saghir
BSc Engg (UET, Taxila)

The Department

Vision

Society services through advancement and brilliance in teaching and research.

Mission

Develop engineering students for prosperous professions

Program Educational Objectives (PEOs)

1. To introduce mechanical engineers who can meet the challenges of emerging and international trends in science, engineering and technology (be able to use up to date tools/methods);
2. To provide technical and research skills to the students;
3. To equip the younger generation with managerial qualities;
4. To provide career guidance;
5. To help the students in character building (Professional ethics and responsibility).

Mechanical Engineering is a highly versatile and diversified engineering discipline. On one hand it is concerned with the design of machines and equipment that use energy and convert it into useful work. On the other hand it deals with the design and development of those machines that are used for manufacturing, production and process equipment.

The department offers four years degree program leading to BSc in Mechanical Engineering. At present, around 771 students in BSc, 94 students in MSc and 44 students in PhD are enrolled in the program.

Courses of Study

The Mechanical Engineering courses are built on a strong foundation of mathematical, physical and computing sciences. Emphasis is laid on the fundamental concepts and principles, which constitute the basis of mechanical engineering practice. The curriculum is designed to cover a broad range of areas. The department offers a series of courses in the following areas:

- Thermo-Fluid Engineering
- Applied Mechanics and Design
- Manufacturing Processes Engineering
- Computer based Mechanical Engineering
- Applied Mathematics & Statistics
- Engineering Management

The courses in Thermo-Fluid Engineering include applied Thermodynamics, Refrigeration and Air Conditioning, Heat and Mass Transfer, Power Plant, Fluid Mechanics and Gas Dynamics. The department offers a wide range of courses in Applied Mechanics and Design. Starting from a basic course in Engineering Statics, a series of courses is offered in Mechanics of Materials and Mechanics of Machines. These theoretical concepts are fostered in a series of Machine Design courses enabling the students to try their skills and design small mechanical equipment. Product design is of no use without product development studies. Manufacturing Processes Engineering deals with the smart and economical product development methodologies. Students start with Workshop Technology in this area. Successive courses in Engineering Materials, Manufacturing Processes and Production Automation provide the students further insight to this area. Additional courses like Engineering Management and Economics in senior year introduce students to the efficient management of the productive resources. Computer based mechanical engineering concepts have been embedded in various courses like Computer Programming, Machine Design, CAD and Thermo-Fluids Engineering etc.

The University has a rich industrial neighborhood. The students have the opportunity to make maximum use of this industrial environment by engaging themselves in short term as well as long term training. These industries include HIT, HMC, POF, PAF complex at Kamra, HEC, KSB, TIP, CTI, ARL, OGTI, Railway Carriage Factory, Research Establishments of PAEC, NESCOM and a large number of units in the Hattar area. The students pick real world problems either for their semester papers or as final year project from these organizations and brush their skills.

The department is offering Masters Degree program since 1983. A large number of engineering graduates have made use of this program in a variety of areas. The program involves two years of part-time as well as full time study and consists of lectures, design, office work, laboratory investigation, software usage & application of computational methods and research. The emphasis is on introducing students to modern trends and techniques and advanced knowledge in their fields of specialization. The department has adequate research facilities including licensed software, state of the art laboratories and access to published literature to meet the needs of postgraduate students to do their Masters program. The department is also offering PhD Program since 2001.Uptill now 23 students have completed their PhD degrees. By the end of year 2016 it is expected that the tally of completed PhDs from the MED would be 30 and quite a few are nearing the mature stage of their research.

Laboratories & other Facilities

The department has the following well-equipped laboratories to meet the academic requirements of students and teachers as well as the professional needs of the government and private organizations:a. Applied Thermodynamics
b. Mechanics of Materials
c. Refrigeration & Air Conditioning
d. Fluid Mechanics and Hydraulics
e. Heat and Mass Transfer
f. Mechanics of Machines
g. Power Plants
h. Internal combustion Engines
i. Engineering Materials
j. Modelling and Simulation
k. Statics & Dynamics
l. Drawing Hall
m. Stress Analysis
n. Mechanical Vibrations
o. Fracture Mechanics & Fatigue
p. Renewable Energy Research & Development Center (RERDC)
q. Composite Materials and Smart Structures
r. Fluid Structure Interaction

Mechanical Engineering Department (MED) is continuously upgrading and strengthening its laboratories in terms of modern research equipment at both undergraduate and postgraduate levels. The strengthening of the laboratories in the Mechanical Engineering Department is being carried out through the grant of Rs. 74.9 M received from the planning commission under the central project of UET Taxila titled “STRENGTHENING AND UPGRADATION (SAUG)” of Labs. In this project the equipment include the wide range of design and thermal fields of mechanical engineering such as supersonic wind tunnel, advanced spectrum analyzer, tribo tester, thermal chamber for thermal analysis, scanning electron microscope (SEM), buckling tester, gyroscope apparatus etc. The bulk of the equipment is already installed and under operation in various relevant labs of MED i.e. Mechanics of Machines, Mechanics of Materials, Fracture Mechanics and Fatigue, Thermodynamics, Fluid Mechanics and Fluid Structure Interaction Labs.

The scope of research in the field of material science remains always a challenging job. The testing of materials; their analysis is always helpful for the new researcher to explore the various properties and characteristics of materials. The Fracture Mechanics & Fatigue laboratory is established in the extension block of Mechanical Engineering Department at ground floor comprising a covered area of 3500 ft2. The idea to establish this advance laboratory was to enhance the research and development activities in the field of fatigue and fracture. The laboratory is equipped with many state of art highly precise testing equipment along with related specimen preparation facility.

The laboratory is equipped with experimental facilities capable to satisfy the needs of postgraduate and undergraduate studies as well as industry R&D. Furthermore this laboratory is potentially able to produce internationally scaled research work in the field of fracture mechanics, fatigue of engineering materials and structures and failure analysis of engineering components and related equipments, particularly defense organizations. Scanning Electron Microscope is an addition to the Fracture Mechanics and Fatigue Lab. It is capable of delivering micrographs at 1 million time magnification, principally used to see material phases, fracture morphology and other properties of materials.

The Composite Materials and Smart Structures laboratory is a state of the art lab which constitutes of latest manufacturing techniques for Advanced Composite Materials, Nanocomposites, and Smart Structures. It has diversified facility of synthesis of different Nanomaterials like Graphene Nanoplatelets, Silver Nanoparticles, Gold Nanoparticles, Carbon Nanotubes, and Polymer based Composites. These sensors developed here are being used for different mechanical applications like structural health monitoring of composite structures and mechanical characterization of advanced materials. Fiber Metal Laminates (FMLs) like ARALL, CARALL, GLARE, and Hybrid Al-Fabric composites are also developed and characterized.

Fluid Structure Interaction is a newly established lab comprising of Supersonic Wind Tunnel, a Subsonic Wind Tunnel and a FIV Monitoring Test Rig. This lab will provide an opportunity to the graduate/undergraduate students to perform wind tunnel experiments over a wide range of wind velocities ranging from low subsonic to supersonic i.e. Mach No. of 1.8.

The Fluid Mechanics lab in the department was renovated and brought up to the state of the art under the “strengthening of labs project” of HEC. A considerable amount was spent under the project to procure new experimental equipment. The Fluid Mechanics Lab today boosts twelve state of the art experimental equipments, including sub-sonic wind tunnel, forced and free vortex generator and parallel and series pump test bed.

A Modelling and Simulation Laboratory has been established to provide facilities for 2D/3D automated drafting, C++ programming and

Digital Simulation. Computer based design and optimization techniques are being employed for teaching various courses in the networking environment and considerable number of modern computers is available in the Department.

The Department shares AMS Lab with Department of Industrial Engineering, which include the state of the art manufacturing facilities with CNC (M100), computer Integrated manufacturing with AGVs/ASRS and virtual prototyping models.

The department has also established a new Renewable Energy Research & Development Center (RERDC). The purpose of the RERDC is to reduce the existing deficiency in research facilities in the Pakistani universities especially in energy sector to support the Pakistani energy policy and departmental priorities for increasing the viability and deployment of renewable energy through system design and prototype development and optimization that enhance domestic benefit from renewable energy development.

Courses Under Semester System
BSc Mechanical Engineering

1st Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
GS-101	Calculus and Analyticla Geometry	3	0
HS-101	Functional English	2	0
CS-101	Computer System & Programing	2	1
GS-102	Applied Physics	2	1
ME-111	Engineering Drawing & Graphics	2	2
GS-103	Applied Chemistry	2	0
	Total:	**13**	**4**
	Semester Total for Part-I & II	**17**	

2nd Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
IS-101	Islamic Studies / Ethics	2	0
EE-101	Electrical Engineering	2	1
HS-102	Communication Skills	2	0
GS-104	Lienear Algebra and Ordrinary Differential Equations	3	0
ME-112	Workshop Practice	1	1
ME-113	Engineering Statics	2	1
ME-121	Thermodynamics-I	3	0
	Total:	**15**	**3**
	Semester Total for Part-I & II	**18**	
	Total for 1st Year	**35**	

3rd Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
IS-201	Pakistan Studies	2	0
ME-211	Engineering Dynamics	2	1
ME-212	Mechanics of Materials-I	3	1
ME-213	Engineering Materials	2	1
ME-221	Thermodynamics-II	2	1
ME-222	Fluid Mechanics-I	3	1
	Total:	**14**	**5**
	Semester Total for Part-I & II	**19**	

4th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EE-201	Electronics Engineering	2	1
GS-201	Complex Varibles and Transforms	2	0
ME-214	Machine Design & CAD-I	2	1
ME-215	Machanics of Materials-II	3	1
ME-223	Fluid Mechanics-II	3	1
GS-202	Social Sciences	2	0
	Total:	**14**	**4**
	Semester Total for Part-I & II	**18**	
	Total for Second Year	**37**	

5th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
HS-301	Technical Report Writing and Presentation Skills	2	0
GS-301	Numerical Analysis	3	0
ME-311	Machine Design & CAD-II	3	1
ME-312	Precision Engineering & Metrology	2	1
ME-313	Manufacturing Processes	3	1
	Total	**13**	**3**
	Semester Total for Part-I & II	**16**	

6th Semester			
Course No.	**Course Title**	**Credit Hours**	
GS-302	Applied Statistics	2	0
ME-314	Control Engineering	2	1
ME-315	Mechanics of Machines	3	1
ME-321	Power Plants	2	1
ME-322	Heat and Mass Transfer	3	1
	Total:	**12**	**4**
	Semester Total for Part-I & I	**16**	
	Total for Third Year	**32**	

7th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
MS-401	Engineering Economics	2	0
ME-411	Mechanical Vibrations	3	1
ME-421	Internal Combustion Engines	2	1
ME-422	Refrigeration and Air Conditioning	3	1
ME-499	Design Project	0	3
	Total:	**10**	**6**
	Semester Total for Part-I & II	**16**	

8th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
ME-412	Advanced Manufaturing Systems	2	1
ME-413	Finite Element Methods	2	1
ME-4XY	Technical Elective Course	2	1
ME-4XY	Management Electives	2	0
ME-499	Design Project	0	3
	Total:	**8**	**6**
	Semester Total for Part-I & II	**14**	
	Total for Final Year	**30**	
	Grand Total for Four Years	**134**	

List of Elective Courses

Technical Electives: (ME-4XY)

a. ME-414 Maintenance Engineering
b. ME-415 Introduction to Mechatronics
c. ME-416 Tribology
d. ME-417 Mechanical Engineering Design Analysis
e. ME-423 Renewable Energy Technology
f. ME-424 Gas Dynamics
g. ME-425 Aerodynamics
h. ME-426 Computational Fluid Dynamics (CFD)
i. ME-427 Nuclear Engineering
j. ME-428 Stress Analysis

Management Electives: (ME-4XY)

a. MS-402 Operations Management
b. MS-403 Total Quality Management
c. MS-404 Project Management
d. MS-405 Operations Research
e. MS-406 Engineering Law
f. MS-407 Business and Entrepreneurship
g. MS-408 Safety Health and Environment
h. MS-409 Environment and Health

FACULTY OF INDUSTRIAL ENGINEERING 4

Dean
Prof. Dr. Mukhtar Hussain Sahir

DEPARTMENT OF INDUSTRIAL ENGINEERING

Chairman
Prof. Dr. Mirza Jahanzaib

Professors

Dr. Mukhtar Hussain Sahir
BSc Engg (Lahore)
MSc Engg (Lahore)
PhD (Taxila)

Dr. Mirza Jahanzaib
BSc Engg (Lahore)
MSc Engg (Taxila),
PhD (Taxila, IRSIP,UK)

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MSc Engg (Taxila)
PhD Engg (UK)

Dr. Salman Hussain
BSc Engg (Taxila)
MSc Engg (UK)
PhD Engg (UK)

Dr. Haris Aziz
BSc Engg (Lahore)
MSc Engg (AIT Thailand)
PhD (AIT Thailand)

Dr. Saifullah
BSc Engg (Taxila)
MSc Engg (HUST, China)
PhD Engg (HUST, China), (on post doc leave)

Dr. Muhammad Shafiq
BSc Engg (NTU,Faisalabad
MSc Engg (AIT, Thailand)
PhD Engg (AIT, Thailand)

Engr. Syed Turab Haider
BSc Engg (Taxila)
MSc Engg (UK) (On Higher Studies Abroad)

Engr. Abdul Aleem
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MSc Engg (Taxila)

Lecturers

Engr. Abid Ali
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MScEngg (Taxila)

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BSc Engg (Lahore)

Engr. Zaheer Ahmad
BSc Engg (Lahore)

Engr. Haji Bahader Khan
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Engr. Aisha Tayyab
BSc Engg (Lahore), MSc Engg (Taxila)

Engr. Muhammad Awais Islam
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Lab Engineers

Engr. Muhammad Jawad
BSc Engg (Lahore)

Engr. Muhammad Usman
BSc Engg (PU, Lahore)

Engr. Neelum Iqbal
BSc Engg (PU, Lahore), MSc Engg (Taxila)

Introduction

Industrial Engineering is the branch of engineering that is concerned with the Design, Analysis, and Operation of Systems. These can range from a consumer product or single piece of equipment to large business, social, and environmental systems. Industrial Engineers determine the most effective ways to utilize the basic factors of ProductionPeople, Machines, Materials, Information, and Energyto make a product or provide a service. The Industrial Engineer's interest lies in modeling system functions and determining how best to achieve the objectives of the system. The methods employed in Industrial Engineering provide an excellent vehicle for considering both private and public costs and benefits.

Industrial Engineers by virtue of education and training have the opportunity to work in a variety of departments and businesses. The most distinctive aspect of industrial engineering is the flexibility that it offers. Whether it's shortening a rollercoaster line, streamlining an operating room, distributing products worldwide, or manufacturing superior automobiles, all share the common goal of saving money and increasing efficiencies. The need for Industrial Engineers is growing. Industrial Engineers are the only engineering professionals trained as productivity and quality improvement specialists. Industrial Engineers figure out how to do things better. They engineer processes and systems that improve quality and productivity.

The Department

Industrial Engineering with Production and Manufacturing majors was the first MSc degree program offered at the university way back in 1983. Industrial Engineering had assumed a distinctive place as sub-discipline in Mechanical Engineering Department since then. With the creation of Industrial Engineering Department, this program has been shifted to the department. Apart from BSc Engineering program, department is also offering MSc and PhD degree programs in the field of Industrial Engineering and Engineering Management. An independent four-year program leading to BSc degree in Industrial Engineering is being introduced with 2010-entry at the university.

Courses of Study

The Industrial Engineering courses are built on fundamentals of Mathematical, Physical and Computing Sciences. The curriculum is designed to educate students in diverse areas of theory and practices in engineering and management domains. The following areas are specifically enriched for disseminating state-of-the-art knowledge to future builders of the nation;

1. *Computational Industrial Engineering*
2. *Human Resource's Skill Development*
3. *Managerial Capabilities Inculcation*
4. *Hightech Manufacturing Technology & Management*
5. *Quality, Productivity and Cost Effectiveness*

On the core technology side, BSc in Industrial Engineering offers students a unique opportunity to learn classical production technologies in courses like Workshop Technology, Manufacturing Processes, Metrology and Tool Engineering. The high-tech courses embed in students the capabilities to learn and acquire modern production systems in courses like CAD/CAM, Robotics, Automation and CIM.

Soft technologies encompassing Statistical Analysis, Economics Optimization and Simulation Modeling courses prepare students to design and build large and complex systems for efficiency and effectiveness. Also, strong emphasis has been ensured to inculcate managerial capabilities in industrial engineering students by including a host of courses in management electives.

Rich industrial neighourhood around the University offers prospective industrial engineering students an ideal environment to groom their professional skills. These industries include HMC, HIT, POF, KSB, TIP, PAF complex at Kamra, BESTWAY and a host of SME's in nearby Hattar Industrial Estate. The department has Seven Laboratories and a fully functional workshop. A large Machine Tools Laboratory and a state-of-the-art Advanced Manufacturing System (AMS) with CIM (Intellitek) equipment is available in the department. CAD/CAM lab consists of Denford machining suit, Boxford, Intellitek milling centers ZCorp Rapid Prototyping and automation modules. Metrology and QC lab equipped with the basic to intermediate level equipment taught to students. Human Factors and Safety lab consisting of treadmill, weighing scale, pin boards, sound meters, light meter spectra light meter and various analysis tools with RULA software. Management System, Modeling and Simulation lab is equipped with modern software like TORA, LINGO, SIMU, ARENA (student version), and Expert Choice, Primavera, Pro Engineer, Minitab, CATIA and related software.

Courses Under Semester System
BSc Industrial Engineering

1st Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
HU-111	English I (Communication skills/Business Skills)	3	0
IE-101	Problem Solving for Industrial Engineers	2	0
IE- 102	Workshop Practice	1	1
ME-191	Engineering Drawing & Graphics	2	1
CS-192	Introduction to Computing	2	1
MA-191	Calculus	3	0
	Total:	**13**	**3**
	Semester Total for Part-I & II	**16**	

2nd Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
HU-291	Logic & Critical Thinking	2	0
MA-192	Differential Equations	3	0
ME-292	Mechanical Technology	2	1
HU-112	Islamic Studies / Ethics	2	0
IE-121	Probability and Statistics	3	0
IE-122	Computer Aided Design & Modeling	2	1
	Total:	**14**	**2**
	Semester Total for Part-I & II	**16**	
	Total for 1st Year	**32**	

3rd Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
IE-231	Engineering Management	2	1
HU-292	Technical Writing Skills	2	0
ME-221	Engineering Mechanics	2	1
HU-101	Applied Physics	3	0
ME-293	Materials Engineering	2	1
MA-193	Applied Linear Algebra	**3**	**0**
	Total:	**14**	**3**
	Semester Total for Part-I & II	**17**	

4th Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
IE-241	Engineering Economics	3	0
IE-243	Operations Research	3	1
IE-242	Manufacturing Process	3	1
HU-113	Pakistan Studies	2	0
ME-294	Mechanics of Materials	2	1
EE-301	Industrial Electronics	**2**	**1**
	Total:	**15**	**4**
	Semester Total for Part-I & II	**19**	
	Total for 2nd Year	**36**	

5th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
IE-311	Operations of Manufacturing Systems	2	1
ME-311	Applied Machine Design & FEM	2	1
IE-312	Metrology & Statistical Quality Control	3	1
IE-313	Optimization Techniques	2	0
IE-314	Work Study & Methods Engineering	3	1
	Total:	**12**	**4**
	Semester Total for Part-I & II	**16**	

6th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
IE-321	Industrial Simulation	2	1
IE-322	Human Factors Engineering	2	1
IE-323	Management of Engineering Projects	3	0
MA-391	Numerical Analysis	3	0
IE-324	Planning & Scheduling in Manufacturing	2	0
IE-325	Industrial Automation and Robotics	2	1
	Total:	**14**	**3**
	Semester Total for Part-I & II	**17**	
	Total for 3rd Year	**33**	

7th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
IE-411	Design of Experiments	3	1
IE-412	Industrial Facilities Design	2	1
IE-XXX	Elective I	3	1
IE-XXX	Elective II	3	0
IE-491	Project Phase I	0	3
	Total:	**11**	**6**
	Semester Total for Part-I & II	**17**	

8th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
IE-XXX	Elective I	2	1
IE-XXX	Elective I	2	1
IE-XXX	Elective II	3	0
IE-XXX	Elective II	3	0
IE-492	**Project Phase II**	**10**	**5**
	Semester Total for Part-I & II	**15**	
	Total for Final Year	**32**	
	Total Credit Hours	**133**	

List of Elective Courses

(Elective I) Manufacturing Track

Course No.	Course Title	Credit Hours	
		Part I	Part II
IE-413	CAD/CAM	2	1
IE-414	Process Planning and Lean Systems	3	0
IE-415	Computer Integrated Manufacturing	2	1
IE-416	Metal Forming & Cutting Analysis	3	1
IE-417	Tool & Die Design	2	1
IE-418	Feed Back & Control	2	1
IE-419	Total Quality Management	2	1
IE-420	Optimization via Simulation	2	1
IE-421	Maintenance and Reliability Analysis	3	0
IE-422	Special Topics	3	0
IE-423	Productivity Improvement Tools and Techniques	3	0
IE-424	Product Development and Concurrent Engineering	3	0
IE-425	Modeling & Analysis of Manufacturing Systems	3	0

(Elective II) Management Track

Course No.	Course Title	Credit Hours	
		Part I	Part II
IE-426	Marketing Management	3	0
IE-427	Human Resource Management	3	0
IE-428	Financial Management	2	1
IE-429	Quantitative and Qualitative Decision Making	3	0
IE-430	Knowledge Management	3	0
IE-431	Management Information System	2	1
IE-432	Organizational Behavior	3	0
IE-433	Soft Computing & Data Mining	2	1
IE-434	Production & Operation Management	3	0
IE-435	Special Topics	3	0
IE-436	Supply Chain & Logistics Management	3	0
IE-437	Expert System Applications	3	0
IE-438	Occupational Health & Safety	2	1

FACULTY OF TELECOMMUNICATION & INFORMATION ENGINEERING 5

Dean

Prof. Dr. Adeel Akram

This faculty consists of four degree awarding departments.

- Department of Computer Engineering
- Department of Software Engineering
- Department of Telecommunication Engineering
- Department of Computer Science

DEPARTMENT OF COMPUTER ENGINEERING

Chairman

Prof. Dr. Muhammad Iram Baig

Professor

Dr. Muhammad Iram Baig
BSc Engg (Lahore), MSc Engg (Lahore), PhD (Taxila)

Associate Professor

Dr. Muhammad Haroon Yousaf
BSc Engg (Taxila), MSc Engg (Taxila), PhD (Taxila)

Assistant Professors

Engr. Muhammad Rizwan
BSc Engg (Taxila), MSc Engg (Taxila)

Engr. Malik Muhammad Asim
BSc Engg (Taxila), MSc Engg (Taxila)

Dr. Fawad Hussain
BSc Engg (Taxila), MSc Engg (Taxila), PhD (Taxila)

Dr. Khalid Bashir Bajwa
BSc Engg (NUST), MSc Engg (UK), PhD (UK)

Dr. Muhammad Majid
BSc Engg (Taxila) , MSc Engg (UK), PhD (UK)

Engr. Sana Ziafat
BSc Engg (Taxila), MSc Engg (Taxila)

Dr. Muhammad Awais Azam
BSc Engg (Taxila), MSc Engg (UK), PhD (UK)

Engr. Afshan Jamil
BSc Engg (Taxila) (Gold Medalist), MSc Engg (Taxila)

Engr. Naveed Khan Baloach
BSc Engg (Taxila), MSc Engg (Taxila)

Engr. Abdul Rehman Chaudhry
BSc Engg (Taxila) , MSc Engg (LUMS)

Engr. Romana Shahzadi
BSc Engg (Taxila), MSc Engg (Taxila)

Engr. Waqar Ahmed
BSc Engg (CIIT, Abd), MSc Engg (Taxila)
(On Higher Studies Abroad)

Lecturers

Engr. Mona Zafar
BSc Engg (Taxila), MSc Engg (Taxila)

Engr. Noshina Ishaque
BSc Engg (Taxila), MSc Engg (Taxila)

Engr. Asim Raheel
BSc Engg (Taxila), MSc Engg (Taxila)

Engr. Asim Raza
BSc Engg (CIIT,Wah), MSc Engg (Taxila)

Lab Engineers

Engr. Sanay Muhammad Umar Saeed
BSc Engg (Taxila), MSc Engg (Taxila)

Engr. Malik Amir Arsalan Awan
BSc Engg (Taxila), MSc Engg (NUST)

Engr. Sharoon Saleem
BSc Engg (Taxila), MSc Engg (Taxila)

Message from Chairman

Computer Engineering has emerged tremendously in the last two decades and found position among the four most degrees awarded globally. Computer Engineers have tremendous job potential due to computing equipment utilization in almost every industry ranging from medical to aerospace. Students are advised to gain hands-on experience in their professional degree of Computer Engineering at UET Taxila. Department is equipped with state of the art laboratories to facilitate experimentation and gain hand-on experience. Technical societies are also formed to provide a suitable platform for additional learning.

The Department

Computer engineering degree program was started in 2001 with an intake of fifty students. Initially, it was setup in the building of Electrical Engineering Department and classes were conducted in evening session only. In the meantime, construction of a separate building for department worth Rs. 40 million with funding from HEC (Higher Education Commission) was started, which completed in year 2006. Building comprised of two floors out of which ground floor is for CPED. This floor has four class rooms, six labs, one examination halls, nearly twenty five offices and some other rooms. Department has laboratories with sufficient hardware and computing facilities. Each computing lab is equipped with at least twenty five PCs and each hardware lab is equipped with fifteen workstations. All computing labs are also networked and department has wireless networked coverage as well.

Computer Engineering department also arrange different sort of events in order to encourage students to take part in those events and groom their technical as well as non-technical skills. The events that we have been arranging so far are; computing and engineering competition in which fast wiring, e-gaming, speed programming and project competition events arranged.

Program Objectives

- To produce Graduates who are able to practice computer engineering to serve state and regional industries, government agencies, or national and international industries.
- To produce Graduates with the necessary background and technical skills to work professionally in one or more of the following areas: computer hardware and software design, embedded systems, computer network design, system integration, electronic design automation.
- To produce Graduates for personal and professional success with awareness and commitment to their ethical and social responsibilities, both as individuals and in team environments.
- To produce Graduates who are capable of maintaining and improving their technical competence through lifelong learning, including entering and succeeding in an advanced degree program in a field such as engineering, science, or business.

Laboratories

1. Electronic System Lab

Electronic system lab contains specialized hardware in the area of electrical and electronics engineering. Lab offers services in the areas of electronic circuit, circuit analysis and digital logic design.

2. Data Communication & Networking Lab

Data Communication and networking lab is equppied with CISCO sponsored network relataied hardware alongwith computing machines. Lab is also providing vibrant services as CISCO local acadmy. Lab offers services in the areas of computer communication and networks.

3. Computing Lab

Computing lab is equipped with latest forty Dell 760 Computing machines. Lab offers services for core computing areas e.g computer fundamentals, programing, data base management systems, algorithms and object oriented programming etc.

4. Digital Systems Lab

Digital systems lab contains specialized hardware in the domain of digital system design. Lab is equppied with micro controller kits (80C51 and PIC 18 series) micro processor kits and FPGA Kits. Lab offers in area of embedded system design, micro processor, computer architecure and digital system desgin.

5. Video & Image Processing Lab

Video and image processing lab was established in 2006 as a project funded by Higher Education Commission Pakistan. Lab is equipped with

state of the art equipment for video and image processing. This lab offers services in the areas of signals and image processing and computer vision. This Lab is dedicated for postgraduate and final year students.

Technical Societies in the Department:

Technical societies are established in the department that serves guideline for the students to choose their profession after their degree. Students entering in first semester are given orientation about these societies so that they can later on join these societies to have technical grooming. The major objective of these technical societies is to develop strong interaction among the scholars and faculty in their corresponding field of interests. Computer Engineering students have been divided into three categories for this reason. Scholars from undergraduate and postgraduate programs and members from the faculty share their work with each other. Each society is headed by specialist of respective field from the faculty. Other faculty members also coordinate. One student is also selected as student chair for each society. URL:http://web.uettaxila.edu.pk/uett/CPED/techSociety.htm

URL: http://web.uettaxila.edu.pk/uett/CPED/techSociety.htm

Taxalian Robotics & Automation Club (TRAC)

This Society is a group of people who are committed to the advancement of robotics in the university through innovation and sharing of expertise, information and experience. Society arranges seminars, workshops and conferences on Micro-controllers, FPGAs and Processors. It hopes to serve as a catalyst for preparing students for the competencies required by industries today and in the near future. This society also aims to organize a national level competition in the university.

Society Counselor:
Engr. Naveed Khan Baloch
Society Coordinator:
Engr. Abdul Rehman Choudhry

Online Course Management System:

All the courses which are currently being taught in all the semesters are managed online. The purpose of this online management of courses is to provide access to the students to all the informative material regarding the subject anywhere all the time so that they can be updated. informative material regarding the subject anywhere all the time so that they can be updated.
URL: http://web.uettaxila.edu.pk/uett/CPED/cms.htm

Directorate of Undergraduate Studies:

Directorate of undergraduate studies works as a facilitation office for undergraduate students. All students related activites: semester registration, class scheduling, attendance record, placement of students in different industries for internship, examinations and study trips are managed here. This office also manages onsite interview arrangements to facilitate various employers like AWC, PMO, PAEC and many others. Industrial liaison and industry - academia collaboration is also a function of this office.

Courses Under Semester System
BSc Computer Engineering

1st Semester		
Course No.	**Course Title**	**Credit Hours**
CP-101	Computing Fundamentals	2
CP-101L	Computing Fundamentals Lab	1
EE-102	Basic Electrical Engineering	3
EE-102L	Basic Electrical Engineering Lab	1
NS-103	Applied Physics	3
NS-103L	Applied Physics Lab	1
MA-104	Calculus & Analytical Geometry	**3**
HU-105	English Language Proficiency	**3**
	Total	**17**

2nd Semester		
Course No.	**Course Title**	**Credit Hours**
CP-106	Digital Logic Design	**3**
CP-106L	Digital Logic Design Lab	1
CP-107	Computer Programming	3
CP-107L	Computer Programming Lab	1
EE-108	Circuit Analysis	3
EE-108L	Circuit Analysis Lab	1
MA-109	Linear Algebra & Differential Equations	**3**
HU-110	Islamic Studies	**2**
	Total	**17**
	Grand Total for First Year	**34**

3rd Semester		
Course No.	**Course Title**	**Credit Hours**
CP-201	Computer Organization & Architecture	**3**
CP-202	Data Structures & Algorithms	3
CP-202L	Data Structures & Algorithms Lab	1
CP-203	Computer Applications in Engineering Design	2
CP-203L	Computer Applications in Engineering Design Lab	1
EE-204	Electronic Circuits	3
EE-204L	Electronic Circuits Lab	**1**
MA-205	Complex Analysis & Transform Methods	**3**
	Total	**17**

4th Semester		
Course No.	**Course Title**	**Credit Hours**
CP-206	Object Oriented Programming	**2**
CP-206L	Object Oriented Programming Lab	1
CP-207	Operating Systems	3
CP-207L	Operating Systems Lab	1
CP-208	Microprocessor & Interfacing	3
CP-208L	Microprocessor & Interfacing Lab	1
CP-209	Signals & Systems	**3**
MA-210	Discrete Structures	**3**
	Total	**17**
	Grand Total for Second Year	**34**

5th Semester		
Course No.	**Course Title**	**Credit Hours**
CP-301	Digital Signal Processing	**3**
CP-301L	Digital Signal Processing Lab	1
CP-302	Computer Communication and Networks	3
CP-302L	Computer Communication and Networks Lab	1
CP-303	Microcomputer Systems	3
CP-303L	Microcomputer Systems Lab	1
MA-304	Numerical Methods & Probability	**3**
HU-305	Business Communication & Report Writing	**2**
	Total	**17**

6th Semester		
Course No.	**Course Title**	**Credit Hours**
CP-306	Digital System Design	**3**
CP-306 L	Digital System Design Lab	1
SE-307	Database Management Systems	3
SE-307 L	Database Management Systems Lab	1
HU-308	Pakistan Studies	2
CP-309	CEDE-I	3
CP-309 L	CEDE-I Lab	**1**
CP-310	IDEE-I	**3**
	Total	**17**
	Grand Total for Third Year	**34**

7th Semester		
Course No.	**Course Title**	**Credit Hours**
CP-401	Preliminary Project Studies	**2**
MS-402	Project Management	3
CP-403	CEDE-II	3
CP-403L	CEDE-II Lab	1
CP-404	IDEE-II	3
CP-404L	IDEE-II Lab	1
HU-405	Engineering Economics	2
HU-406	Professional Ethics	**2**
	Total	**17**

8th Semester		
Course No.	**Course Title**	**Credit Hours**
CP-407	Design Project	**4**
MS-408	Management Information System	3
MS-409	Entrepreneurship & Leadership	2
CP-410	CEDE-III	3
CP-410L	CEDE-III Lab	1
CP-411	IDEE-III	3
CP-411L	IDEE-III Lab	**1**
	Total	**17**
	Grand Total for Final Year	**34**
	Total Degree Credit Hours	**136**

Elective Courses for Computer Engineering

Computer Engineering Depth Electives (CEDE)

Course Code	Course Title	Credit Hours
	Computer Graphics	3
	Computer Graphics Lab	1
	VLSI System Design	3
	VLSI System Design Lab	1
	Control Engineering	3
	Control Engineering Lab	1
	Advance Topics in Computer Engineering	3
	Advance Topics in Computer Engineering Lab	1
	System Programming	3
	System Programming Lab	1

Inter-Disciplinary Engineering Electives (IDEE)

Course Code	Course Title	Credit Hours
	Artificial Intelligence	3
	Neural Networks and Fuzzy Logic	3
	Parallel & Distributed Computing	3
	Network Security	3
	Advanced Algorithms	3
	Wireless Networks	3
	Wireless Networks Lab	1
	Digital Image Processing	3
	Digital Image Processing Lab	1
	Digital Communication	3
	Digital Communication Lab	1
	Communication Systems	3
	Communication Systems Lab	1
	Digital Image Processing	3
	Digital Image Processing Lab	1
	Applied Electronics	3
	Applied Electronics Lab	1
	Robotics	3
	Robotics Lab	1

DEPARTMENT OF SOFTWARE ENGINEERING

Chairman

Dr. Tabassam Nawaz

Associate Professor

Dr. Tabassam Nawaz
BSc Engg (Taxila)
MCS (BIIT), MSc Engg (Taxila), PhD (Taxila)

Assistant Professors

Dr. Mustansar Ali Ghazanfar
BSc Engg (Hons) Gold Medalist (Taxila)
MSc Engg (UK), PhD (UK)

Dr. Nadeem Majeed Chaudhry
MS (CASE), MCS (Hamdard University Karachi)
PhD (Taxila)

Dr. Syed Muhammad Anwar
BSc Engg (Taxila) , MSc Engg (UK), PhD (UK)

Dr. Hussain Dawood
BSc Engg (CIIT,Wah) ME (BNU, China)
PhD (BNU,China)

Dr. Hassan Dawood
BSc Engg (CIIT,Wah) ME (BNU, China)
PhD (BNU,China)

Engr. Raja Muhammad Asjad Saleem
BSc Engg (Hons) (Taxila)
MSc Engg(Taxila)

Mrs. Huma Ayub Vine
MCS (QAU) , MS (NUST)

Engr. Ali Javed
BSc Engg (Hons) (Taxila) 3rd postion overall
MSc Engg (Taxila) Gold Medalist

Engr. Mubashir Ayub
BSc Engg (Hons) (Taxila)
MSc Engg (UK)

Engr. Saima Zareen
BSc Engg (Hons) (Taxila)
MSc Engg (NUST)

Engr. Wajahat Abbas
BSc Engg (Hons) (Taxila)
MSc Engg (Taxila) (On Higher Studies Abroad)

Engr. Fawad Riasat Raja
BSc Engg (Taxila)
MSc Engg(Taxila) (On Higher Studies Abroad)

Engr. Madiha Liaqat
BSc Engg (Hons) (Taxila)
MSc Engg (Taxila)

Engr. Wajeeha Batool
BSc Engg (Hons) (Taxila)
MSc Engg (Taxila)

Lecturers

Engr. Tasawer Khan
BSc Engg (Hons) (Taxila)
MSc Engg (UK)

Engr. Sehar Javed
BSc Engg (Hons) (Taxila)
MSc Engg (NUST)

Engr. Zahid Mehmood
BSc Engg (Hons) (COMSATS)
MSc Engg (IIUI)

Engr. Arta Iftikhar
BSc Engg (Hons) (Taxila)
MSc Engg (Taxila)

Engr. Kanwal Yousaf
BSc Engg (Hons) (Taxila)
MSc Engg (Taxila)

Lab Engineers

Engr. Nazia Bibi
BSc Engg (Hons) (Taxila)

Engr. Sidra Shafi
BSc Engg (Hons) (Taxila)

Engr. Rabia Arshad
BSc Engg (Hons) (Taxila)

Engr. Saba Awan
BSc Engg (Hons) (Taxila)

The Department

Software Engineering degree Program was started in 2002. Initially, it was setup in Electrical Engineering Department and classes were conducted for evening session only. In the mean time, the construction of separate building for department worth Rs. 40 million with funding from HEC (Higher Education Commission) was completed in year 2006. Building comprises of seven class rooms, nine labs, one girl's common room, two examination halls and twenty offices. Department has laboratories with sufficient hardware and software facilities. Each lab is equipped with thirty PCs. The labs are networked and the department has wireless network coverage as well.

Software engineering department organizes different events to encourage student's participation and groom their technical as well as non technical skills. The events that have been arranged so far are; programming exhibition (Term projects exhibition in JAVA, C# etc), Database exhibitions, annual students day, seminars and workshops related to Software Engineering topics.

Program Objectives

Software Program Objectives:

Graduates of Software Engineering Program shall be able to:

a. Apply proper theoretical, technical, and practical knowledge of software requirements, analysis, design, implementation, verification and validation, and documentation.

b. Develop appropriate solutions to a given problem using software engineering approaches that integrate ethical, social, legal, and economic concerns.

c. Design, synthesize, and analyze, software systems of increasing size and complexity at various abstraction levels i.e. from the individual component to the entire system architecture.

d. An ability to define, assess, and apply software quality practices for appropriate application on software development projects in a variety of domain areas.

e. Be an effective member of a multi-disciplinary software-intensive product development team.

f. Able to communicate, to varied stakeholder audiences, technical concepts in a complete, concise, and correct manner in a format appropriate for the audience.

g. Engage in lifelong learning of software engineering theories and technologies through graduate education, participation in professional activities, or the acquisition of new technical proficiencies, or managerial and leadership skills.

Laboratories

a. Software Engineering Lab

The Software Engineering Laboratory provides general purpose computing facilities to the students of Software Engineering discipline. The lab is equipped with thirty computers with latest specifications and the state of the art software tools and applications. This lab is fulfilling the requirements of courses related to software technologies, computer networks and internet technologies.

b. Computer Graphics Lab

The purpose of this lab is to provide students a facility to conduct experiments related to Computer Graphics and visual programming courses.

c. DOT IT Lab

This lab was solely constructed for research and development in the field of Databases, Web Engineering, Artificial Intelligence and Data mining.

d. Elementary Computer Lab

This lab is dedicated for introductory courses including basic programming and computing. The lab is equipped with latest equipment and softwares to facilitate students.

e. Final Year Project Lab

This lab is used by the students of final year to work on their final year project; the lab is equipped with all the necessary facilities that help the students.

Placement Bureau & Industrial Liaison Office at Software Engineering Department

A placement bureau has been established by the department to facilitate the placement of students in the industry. The Bureau communicates with public and private sector organizations and broadcast opportunities among the students. Interview arrangements are also made to facilitate employers. Industrial liaison officer has been designated at departmental level who co-ordinates the process of internships for students and hence serves the purpose of industry-university linkage.

Societies

Societies are developed in order to bring out potential qualities of students and enhance their skills. The major objective of these societies is to develop strong interaction among the students and faculty in their corresponding field of interests.

a. Soft Desk

Domain of software development is touching new heights for the past few years and software technologies are rapidly being developed and become obsure within months. There is every need to keep an eye on changing trends in the field of Software Engineering. For the above stated purpose a society has been established in the Department of Software engineering named **SOFTDESK**. The major achievement of **SOFTDESK** is to organize UET Taxila Olympiad at National leve where universites from aal over Pakistan participates every year.
Society Advisor: Ali Javed

b. Society for Extra-Mural Activities

It has been the tradition of Software Department to arrange the Annual Student Day since 2007. Society provides the students a platform to exhibit their co-curricular and extracurricular talent. It organizes competations of different categories like drama, signing, gaming and technical quizzes extra.
Society Advisor: Engr. Fahad Khan

c. Mobile Application Development wing

This Research and Development group actively working on Mobile Applications in the area of Windows Phone Development and Android Development. Engr. Ali Jave is Incharge Windows Phone 8 and Store apps Development. Dr.Nadeem Majeed Chaudry is Incharge of Android Application Development. This group also organizes seminars, training and workshops in all areas of Mobile Application Development.
Wing Advisor: Engr. Ali Javed, Dr.Nadeem Majeed Chaudry.

d. Software Technologies Incubation Centre (STIC)

Due to technological advancements in Software industry and to reduce the gap between academia and industry, Department of Software Engineering, UET Taxila established Softwar Technologies Incubation Centre (STIC). STIC offered different workshops in networking field like Microsoft Certified System Engineer (MCSE-Microsoft Windows Server 2003), Microsoft Certified Information Technology Professional (MCITP-Microsoft Windows Server 2008), Microsoft Certified Solutions Associate (MCSA- Microsoft Windows Server 2012), LINUX Redhat Certified Engineer (RHCE), Cloud Computing/Virtualization, Cisco Certified Network Associate (CCNA) and workshops in Software field like PHP, Wordpress, joomla, Magento, Andriod and Search Engine Optimization (SEO). After successful completion of these workshops, students are able to get best jobs either in Software field or in networking field.

Courses Under Semester System
BSc Software Engineering

1st Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
SE-101	Introduction to Computing	3	1
ME-102	Discrete Structures	3	0
HU-103	Applied Physics	3	1
HU-104	English I (Functional English)	3	0
MA-105	Calculus and Analytical Geometry	3	0
	Total:	**15**	**2**
	Semester Total for Part-I & II	**17**	

2nd Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
SE-106	Introduction to Software Engineering	3	0
EE-107	Digital Logical Design	3	1
SE-108	Programming Fundamentals	3	1
MA-109	Linear Algebra	3	0
HU-110	Communication Skills	3	0
	Total	**15**	**2**
	Semester Total for Part-I & II	**17**	
	Total for 1st Year	**34**	

3rd Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
MA-201	Numerical and Symbolic Computing	2	1
SE-202	Software Requirement and Specification	2	1
SE-203	Data Structures & Algorithm	3	1
HU-204	Pakistan Studies & Islamiyat	3	0
HU-205	Technical Report Writing	3	0
	Total	**13**	**3**
	Semester Total for Part-I & II	**16**	

4th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
SE-206	Operating Systems	3	1
SE-207	Software Architecture Design	3	0
SE-208	Object Oriented Programming	3	1
SE-209	Introduction to Database System	3	1
MG-210	Principles of Management	3	0
	Total	**15**	**3**
	Semester Total for Part-I & II	**18**	
	Total for 2nd Year	**34**	

5th Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
SE-301	Software Verfication & Validation	2	1
SE-302	Object Oriented Software Engineering	2	1
SE-303	Software Engineering Economics	3	0
MA-304	Probability & Statistics	3	0
SE-305	Web Engineering	3	1
	Total	**13**	**3**
	Semester Total for Part-I & II	**16**	

6th Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
SE-306	Digital Image Processing	3	1
SE-307	Computer Communication & Networks	3	1
SE-308	Elective General*	3	1
SE-309	Artificial Intelligence	3	0
SE-310	Domain Specific Elective*	3	0
	Total	**15**	**3**
	Semester Total for Part-I & II	**18**	
	Total for 3rd Year	**34**	

7th Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
SE-401	Software Testing	2	1
SE-402	Preliminary of Project Studies	0	2
SE-403	Elective General*	3	1
SE-404	Domain Specific Elective *	3	0
CS-405	Software Project Management	2	1
HU-406	Human Resource Management	3	0
	Total	**13**	**5**
	Semester Total for Part-I & II	**18**	

8th Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
SE-407	Human Computer Interaction	3	0
SE-408	Design Project	0	4
SE-409	Elective General *	3	0
SE-410	Professional Practices	3	0
MG-411	Marketing	**3**	**0**
	Total	**12**	**4**
	Semester Total for Part-I & II	**16**	
	Total for Final Year	**34**	
	Grand Total for Four Years	**136**	

Elective Courses for Software Engineering

Domain Specific Elective Courses

Course No.	Course Title
	System for Small & Mobile Platforms
	Safety Critical Systems
	Net-Centric Systems
	Information Systems and Data Processing
	Bio Medical System
	Mobile Application Development
	Enterprise Security Architecture
	Enterprise Systems Engineering
	Fault Tolerant and Survivable Systems
	Financial and E-commerce Systems
	Multimedia, Game and Entertainment Systems
	Embedded and Real Time Systems
	Visual Programming

Elective General Courses

Course No.	Course Title
	Data Authentication and Security
	Network Security and Data Encryetion
	Analysis of Algorithms
	Advance Operating Systems
	Data Warehousing & Data Mining
	Software Metrics
	Advanced Programming Techniques
	Web Application and Design
	System & Network Programming
	Advanced Database Management System
	Formal Methods in Software Engineering
	Introduction to Bio Informatics
	Computer Vision
	Simulation and Modelling
	Advance Software Technologies
	Semantic Web
	Wireless Networks

Elective General Courses

Course No.	Course Title
	Advance Topics in Software Engineering
	Theory of Intelligent Systems
	Mobile & Pervasive Computing
	Open Source Systems
	Computer Forensic
	Compiler Construction
	Advanced JAVA with Emphasis on Internet Applications
	Distributed Computing
	Enterprise System Engineering
	Automata Theory & Formal Languages
	Design Patterns
	Artificial Neural Networks
	Machine Learing
	Internet of Things
	Cloud Computing
	Business Process Engineering

DEPARTMENT OF TELECOMMUNICATION ENGINEERING

Chairman

Engr. Dr. Yasar Amin

Professor

Engr. Dr. Adeel Akram
BSc Engg (Lahore)
MSc Engg (Nust), PhD (Taxila)

Associate Professor

Engr. Dr. Yasar Amin
BSc Engg (Taxila)
MSc Engg (KTH, Sweden),
PhD (KTH, Sweden)
MBA (UTU, Finland)

Assistant Professors

Engr. Muhammad Jamil Khan
BSc Engg (Taxila) , MSc Engg (Taxila)

Engr. Syeda Iffat Naqvi
BSc Engg (Taxila), MSc Engg (Taxila)

Engr. Farzana Kulsoom
BSc Engg (Taxila). MSc Engg (Taxila)
(on higher studies abroad)

Engr. Farzana Arshad
BSc Engg (Taxila)
MSc Engg (Taxila)

Engr. Humayun Shahid
BSc Engg (IST, IBA) , MSc Engg (NTU, Singapore)

Engr. Farhan Qamar
BSc Engg (Taxila) MSc (Taxila)

Engr. Mudassar Ali
BSc (Taxila) MSc (Taxila)

Engr. Ali Riaz
BSc Engg (IOWA State, USA)
MSc Engg (IOWA State, USA)

Engr. Mohsin Niaz
BSc Engg (Taxila), MSc Engg (CUT, Sweden)

Engr. Dr. Rashid Saleem
BSc Engg (GIKI)
MSc Engg (Taxila), PhD (Univ. of Manchester, UK)

Engr. Ghulam Shabbir
BSc (Taxila), MSc Engg (UMT LHR)
MS Telecom Management (INT France)

Lecturers

Engr. Faisal Ali
BSc Engg (COMSATS, IBD)
MSc Engg (UK)

Engr. M. Zeshan Sarwar
BSc Engg (Taxila)
MSc Engg (Iqra Uni IBA)

Engr. Lubna Nadeem
BSc Engg (Taxila)
MSc Engg (Taxila)

Engr. Rizwana Shahzadi
BSc Engg (Taxila)
MSc Engg (Taxila)

Engr. Salman Azam
BSc Engg (COMSATS)
MSc Engg (Taxila)
(on higher studies abroad)

Engr. Syeda Irum Jafri
BSc Engg (Taxila) MSc Engg (Taxila)

Lab Engineers

Engr. Aasma Shafi Randhawa
BSc Engg (GC Uni, FSD)

Engr. Faisal Shehzad
BSc Engg (FAST)

Engr. Asma Ejaz
BSc Engg (Taxila), MSc Engg (Taxila)

The Department

Established in 2007, Department of Tecommunication is concerned with the theory, development and application of telecommunication systems, their design and integration. The objective of the program is to provide students with a strong theoretical and practical background in the field of telecommunication, along with the engineering analysis, design and implementation skills necessary to work between the two. The program involves study of complete telecommunication systems, technologies running on it and how these technologies can be developed. After successful completion of the Telecommunication Engineering degree, the graduates will gain a broad range of skills in the area of telecommunication with strong analytical and critical abilities. These graduates are ready to embark upon an exciting career in a diverse range of telecommunication technology-rich companies and industries. The department offers 4 years degree program of BSc in Telecommunication Engineering.

Program Objectives

With the immense increase in the demand of telecommunication engineers, growth of global telecommunication industry, deregulation, privatization and rapid technological changes, UET Taxila established Telecommunication Engineering Department under the Faculty of Telecommunication and Information Engineering.
The department aims in imparting high quality education to the students with hands on training on the latest and emerging telecommunication technologies. For their engineers to measure up to international standards, the Telecommunication Engineering Department is inducting the cutting edge technologies in the form of equipment and expertise in the form of faculty and professional training experts. This will help in achieving the University goals to produce engineers that are capable to take up any challenge in the industry and are able to perform their tasks efficiently with high precision.
The department offers undergraduate programs with the following objectives:

- Allow R&D and Professional Trainings in relevant technologies and areas including Information technology, Optical Fiber Systems, Digital Switching, Digital Subscriber Loop, Digital Radio systems, ISDN and Broadband Networks, Digital and Broadband Switching, Voice over IP, as well as Mobile and Wireless Communication Systems.
- Provide a pool of expertise for defining optimal technology paths for the evolution of telecommunication networks and services these experts will be able to design the future telecommunication networks in our country. They also provide consultancy services to the industry.
- To provide much needed technical manpower that are well versed with the myriad of new telecommunication products being floated in the world market today.

Program Outcomes

Upon successful completion of the Telecom Engineering program, graduate will:

- Understand and be able to apply principles of Telecom Engineering practice and process subject to realistic constraints.
- be able to analyze, document and track system requirements.
- be able to design, implement and maintain telecom systems.
- be able to verify and validate telecom systems.
- have an awareness of current industry standards and practices.
- be able to work in one or more application domains.
- understand and apply principles of team process and project management.
- be capable of independent learning.
- understand professional responsibility and the application of ethical principles.

Laboratories

a. Electronic System and measurements Lab

This lab is basically developed for the experiment of subjects like basic electronic, digital logic design. circut analysis and amplifiers and oscillators, ect. This lab is equppied with latest equipment and all required software packeges used for simulation purposes.

b. Antenna and RF Lab

This lab is bascillay developed for the experiments of subjects like antenna and Wave Propagation and Antenna, RF, Microwave Engineering, moblie and wireless communication and saltellite communication. The lab is equipped with latest equipment and all required software packages used for simulation purposes.

c. Computing Labs

The purposes of this lab is to conduct the practical work for various subjects like introduction to computer,object oriented programming and numerical medthos etc. This lab is equipped with all the necessary hardware and software facilities.

d. Communication Systems Lab

The purpose of this lab is to conduct the simulation work for various subjects like computer communication network , Digital Communication, Antenna and wave propagation , etc. This lab is equipped with all the necessary hardwar and software facilities.

e. Telecommunication Innovation Center:

This lab has been established with collaboration of Telecom industry to equip the TED with state of the art equipment and infrastrructure. The equipment donated by industry is in pracitce and functional.

Courses Under Semester System
BSc Telecommunication Engineering

1st Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
TE -101	Communication Skills	3	0
TE -102	Introduction to Computing	2	1
TE -103	Calculus & Analytical Geometry	3	0
TE-104	Introduction to Telecommunications	3	0
TE -105	Linear Algebra	3	0
	Total:	**14**	**1**
	Semester Total for Part-I & II	**15**	

2nd Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
TE-106	Critical Reading & Writing	3	0
TE-107	Object Oriented Programming	2	1
TE-108	Islamic Studies	2	0
TE-109	Applied Physis	2	1
TE-110	Multivariable Calculus	3	0
TE-111	Pakistan Studies	2	0
	Total	**15**	**2**
	Semester Total for Part-I & II	**17**	
	Total for 1st Year	**32**	

3rd Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
TE-201	Technical Report Writing	3	0
	ID Elective I	2	1
TE-202	Differential Equations	3	0
TE-203	Circuit Analysis	3	1
TE-204	Computer Aided Engineering Drawing	0	1
TE-205	Basic Electronics	3	1
	Total	**14**	**4**
	Semester Total for Part-I & II	**18**	

4th Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
TE-206	Computer Communication & Networks	3	1
TE-207	Amplifiers & Oscillators	3	1
TE-208	Signals & Systems	3	0
TE-209	Digital Logic Design	3	1
TE-210	Probability Methods in Engineering	3	0
	Total	**15**	**3**
	Semester Total for Part-I & II	**18**	
	Total for 2nd Year	**36**	

5th Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
TE-301	Electromagnetic Theory	3	0
TE-302	Control Systems	3	1
TE-303	Communication Systems	3	1
TE-304	Digital Signal Processing	3	1
TE-305	Engineering Economics	3	0
	Total	**15**	**3**
	Semester Total for Part-I & II	**18**	

6th Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
TE-306	Digital Communication	3	1
TE-307	Wave Propagation & Antennas	3	1
TE-308	Wireless & Mobile Communication	3	0
TE-309	Microprocessors & Interfacing Techniques	3	1
TE-310	Professional Practices	3	0
	Total	**15**	**3**
	Semester Total for Part-I & II	**18**	
	Total for 3rd Year	**36**	

7th Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
TE-401	Engineering Management	3	0
TE-402	RF & Microwave Engineering	3	1
	ID Elective-I	2	1
	MBC Depth Elective-I	3	1
TE-404	Final Year Design Project-I	0	3
	Total	**11**	**6**
	Semester Total for Part-I & II	**17**	

8th Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
TE-403	Transmission & Switching Systems	3	1
	MBC Depth Elective-I	3	1
	Social Sciences Elective-II	3	0
TE-405	Final Year Design Project-II	0	3
	Total	**9**	**5**
	Semester Total for Part-I & II	**14**	
	Total for Final Year	**31**	
	Grand Total for Four Years	**135**	

Elective Courses for Telecommunication Engineering

Major Based Core (MBC) Depth Electives

Course No.	Course Title
TE-405	Multimedia System
TE-405	Digital Electronics
TE-407	Digital Image Processing
TE-408	Satellite Communication
TE-409	Optical Fiber Communications
TE-410	Telecom Policies and Protocols
TE-411	Telecom Traffic Engineering
TE-412	Spread Spectrum Communications
TE-413	Speech Processing
TE-414	Next Generation Networks
TE-415	Network Security
TE-416	Broadband Communication Networks
TE-417	Radar System Engineering
TE-418	Telecommunication Management Networks
TE-419	Compression Techniques
TE-420	Telecommunication Systems

IDE Electives

Course No.	Course Title
TE-211	Numerical Methods in Engineering
TE-212	Operating Systems
TE-213	Data Structure and Algorithms
TE-214	Database Management systems
TE-420	Embedded Systems
TE-421	Artificial Intelligence
TE-422	Reliability in Telecommunication Systems
TE-423	VLSI Systems

Social Sciences

Course No.	Course Title
TE-424	Organizational Behavior
TE-425	Psychology
TE-426	Public Policy
TE-427	Sociology
TE-428	Political Science
TE-429	Pakistani Culture and Society

DEPARTMENT OF COPMUTER SCIENCE

Chairman
Dr. Hafiz Adnan Habib
PhD (Taxila)

Professor
Dr. Adeel Akram
PhD Electrical Engineering (Taxila)

Associate Professor
Dr. Hafiz Adnan Habib
PhD Electrical Engineering (Taxila)

Assistant Professors
Dr. Khurram Shehzad
PhD Data Mining (UK)
Dr. Syed Aun Irtaza
PhD Computer Science (FAST)
Muhammad Munawar Iqbal
MS Computer Science (COMSATS), MCS (PU)
Dr. Farrukh Zeeshan
PhD Telecommunications (Austria)
Dr. Zeeshan Iqbal
PhD Computer Engineering (Taxila)
Dr. Syed Muhammad Adnan Shah
PhD Computer Engineering (Taxila)
Dr. Javed Iqbal
PhD Information Technology (Malaysia)

Lecturers
Rao Wakeel Ahmad
MS Information Technology (NUST)
MCS (UOS)
Abid Rauf
MS Information Security (China)
Mehmoon Anwar
MS Computer Science (IIUI)
Rashid Amin
MS Computer Science (IIUI)
Ms. Asima Ismail
MS Computer Science (IIUI)

THE DEPARTMENT
TComputer science is the scientific and practical approach to computation and its applications. A computer scientist specializes in the theory of computation and the design of computational systems. Computer science degree provides tremendous career opportunities around the globe with attractive pay packages. Computer science education is being boosted by US government. US government is promoting computer science education at all levels from K-12 to higher education. US government has declared computer science as a basic skill that must be learnt by every individual. This trend is being followed by European countries and India.

Computer science has served human beings from their personal life to all sectors of business. Computer science evolved and produced new mechanisms and services for human beings. Computing is now supporting human being everywhere from personal life to managing businesses. Such involvement has created great number of jobs for computer scientists. Top careers for computer scientists are: software application development, computer systems analyst, computer system engineers, network system administrator, database administrator, business intelligence analyst, web developer, smart phone application development, computer programmer, big data, cloud computing.

Computer science department considers latest job trends for computer scientists in international market. The department has objective to train students with the skills that are high in demand in international job market. Department has particularly focused on training students about big data, data science, cloud computing, android app development, iOS app development and SAP. These are among the most demanded skills for computer scientists.

The department primarily teaches curriculum recommended by National Computing Education Accreditation Council (NCEAC). In addition, the department has introduced subjects required for skills development in big data, cloud computing, android and iOS app development to target international job market.

The department has academic partnerships with leading companies of computer science industry. So far, department has

academic partnership with Cloudera, Oracle, VMWare, Amazon Web Service, SAP and Microsoft. The department has got industry developed curriculum by these academic partnerships. The department has also received software being deployed in industry from these academic partnering companies.

Computer science department has established 2 computing labs, 1 apple lab, 1 data science lab for experimentation of students. Students are provided wireless internet access. Department is planning to bring your own device (BYOD) facility to let students use software on their own laptops. The department is also providing blended learning facility to the students. Video lectures are recorded and students can view these lectures after class to enhance their learning.

PROGRAMME STRUCTURE OF BS COMPUTER SCIENCE

To complete the BS Computer Science degree:

1) The minimum credit hours shall be 132 including computing related courses.
2) The program shall comprise 8 semesters spread over 4 years with two semesters a year.

"It's been a thrilling experience studying here at UET Taxila and it has surpassed all my expectations that I had at the time when I applied, I have had the opportunity to study with my fellow students coming from diverse backgrounds and cultures. The faculty at the Department of Computer Science is definitely second to none when it comes to offering captivating courses by people who know the stuff they're dealing with."

Courses Under Semester System
BS Computer Science

1st Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
CS -101	Introduction to Information and Communication Technologies	3	1
CS -102	Programming Fundamentals	3	1
MT-101	Calculus and analytical geometry	3	0
EG -101	Functional English	3	0
EL -101	Basic Electronics	2	1
	Total:	**14**	**3**
		17	

2nd Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
CS-103	Object Oriented Programming	3	1
CS-104	Discrete Structures	3	0
EG-102	Technical and Business Writing	3	0
MT-102	Probability & Statistics	3	0
PK-101	Islamic and Pak Studies	3	0
	Total	**15**	**1**
		16	

3rd Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
CS-201	Data Structures and Algorithms	2	1
CS-202	Digital Logic and Design	2	1
EG-201	English III (Communication Skills)	2	0
MG-201	University Elective– II (Fininancial Management)	2	1
MT-202	Linear Algebra and Differential Equations	3	0
	Total	**11**	**3**
		14	

4th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
CS-204	Operating Systems	2	1
CS-205	Introduction to Software Engineering	3	0
CS-206	Computer Architecture	2	1
CS-208	CS Elective - I (Data Communication)	3	0
CS-203	Introduction to Database Systems	3	1
MT-301	Numerical Computing	3	0
	Total	**16**	**3**
		19	

5th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
CS-301	Human Computer Interaction	3	0
CS-302	Theory of Automata & Formal Languages	3	0
CS-303	Operations Research	2	1
CS-304	CS Elective-II (Distibutied Computing)	3	0
CS-305	CS Elective-III (Computer Graphics)	3	0
CS-306	Design and Analysis of Algorithms	3	0
	Total	**17**	**1**
		18	

6th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
CS-307	CS Elective- IV (Web Engingeering)	3	0
CS-308	Advanced Data Base Systems	3	0
MG-301	University Elective – III (Marketing)	3	0
CS-309	Computer Communication and Networks	3	0
CS-310	CS Elective- V (Visual Programming)	3	0
CS-311	Smart Application Development	3	0
	Total	**18**	**0**
		18	

7th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
CS-400	Software Design Project-I	3	0
CS-401	CS Elective-VI (System Programming)	3	0
CS-402	Compiler Construction	3	0
CS-403	Data Warehousing	3	0
CS-404	CS Elective- VII (Advanced Software Engineering)	3	0
CS-405	Artificial Intelligence	3	0
	Total	**18**	**0**
		18	

8th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
CS-400	Software Design Project-II	3	0
CS-406	Wireless Networks	3	0
CS-407	Software Quality Assurance	3	0
SS-401	University Elective-IV (Professional Practices)	3	0
	Total	**12**	**0**
		12	
	Total Credit Hours	**132**	

Computer Science Elective courses

Sr. #	Code	Course Title	Credit hours
1	CS	Operations Research	3 (3, 0)
2	CS	Simulation and Modeling	3 (3, 0)
3	CS	Computer Graphics	3 (2, 1)
4	CS	Digital Image Processing	3(2, 1)
5	CS	Digital Signal Processing	3(2, 1)
6	CS	Computer Vision	3(2, 1)
7	CS	Software Engineering	3 (3, 0)
8	CS	Advance Software Engineering	3 (3, 0)
9	CS	Principles of Programming Languages	3 (2, 1)
10	CS	Data Communication	3 (3, 0)
11	CS	Distributed Computing	3 (2, 1)
12	CS	Data and Network Security	3(3, 0)
13	CS	Wireless Networks	3(2, 1)
14	CS	Telecommunication Systems	3 (2, 1)
15	CS	Microprocessor Interfacing	3 (2, 1)
16	CS	Web Engineering	3 (2, 1)
17	CS	System Programming	3 (2, 1)
18	CS	Distributed Database Systems	3 (2, 1)
19	CS	Data Warehousing	3(2, 1)
20	CS	Numerical and Symbolic Computing	3(3, 0)
21	CS	Expert Systems	3(3, 0)
22	CS	Artificial Neural Network	3(3, 0)
23	CS	Fuzzy Logic	3(3, 0)
24	CS	Software Quality Assurance	3(3, 0)
25	CS	Advance Object Oriented Programming(JAVA)	4(3, 1)
26	CS	Network Analysis and Design	3(3, 0)
27	CS	Network Management	3(3, 0)
28	CS	Game Programming	3(3, 0)
29	CS	Cryptography	3(3, 0)
30	CS	Network Programming	3(3, 0)
31	CS	Cloud Computing	3(3, 0)
32	CS	Visual Programming	3(3, 0)
33	CS	Object Oriented Software Engineering	3(3, 0)
34	CS	Computer Law	3(3, 0)
35	CS	Computer Animation	3(3, 0)
36	CS	Modern Programming Language	3(3, 0)

University Elective Courses

Sr#	Code	Course Title	CreditHours
1	MG	Financial Accounting	3 (3, 0)
2	MG	Financial Management	3 (3, 0)
3	MG	Human Resource Management	3 (3, 0)
4	MG	Marketing	3 (3, 0)
5	SS	Economics	3 (3, 0)
6	PS	Psychology	3 (3, 0)
7	SS	International Relations	3 (3, 0)
8	SS	Foreign/Regional Language (French, German, Sindhi, Punjabi, Urdu etc.)	3 (3, 0)
9	SS	Philosophy	3 (3, 0)
10	MG	Introduction to Management	3(3,0)
11	QA	Quality Control & Engineering Standards	3 (3, 0)
12	QA	Quality Assurance and Management System	3 (3, 0)
13	QA	Quality Improvement Tools & Methods	3 (3, 0)

Sr. No	Academic Partnership	
1	Cloudera	cloudera
2	Oracle	ORACLE
3	VMWare	vmware
4	SAP	SAP Partner

Computer Science Department LABS

5	Data Science Lab Data Science Laboratory is involved in research and training of students about the developing solutions for complex and big data problems. Data creation has increased massively in recent past due to social networks and the internet of things. This lab will provide training to students about computing architectures that are specifically designed to store and manipulate this huge amount of data. The lab has an academic partnership with Cloudera, which is a leading solution provider for big data and data science technologies. Students will be provided latest Cloudera software for Hadoop to practice on data science problems. Computer Science is .the only academic partner of Cloudera in Pakistan
6	Software House To enrich students with state-of-the-art Computer Technology and to let them work on real-time industry projects, Department of Computer Science UET Taxila has initiated establishment of Software House in the department. The idea is to engage and get trained our final year students by working under the supervision of top professionals from the Software Industry to work on the real world Projects. Students will also attend presentation/seminar sessions frequently on the cutting edge tool, technologies, and trends in the Software Industry. Currently, the emphasis is for in-house development but we have plans to expand operations for commercial projects as well. Software house has collaboration with PASHA (Pakistan Software House Association), PSEB (Pakistan Software Export Board) and Open SV(Silicon Valley). Software House will also interact with Plan 9 Incubation program to train students about entrepreneurship and setting up their .own companies
7	Cloud Computing LAB Cloud Computing Lab has focus on training students with latest solutions and trends in cloud computing. Lab has setup cloud of 45 nodes. Students will develop apps and will be hosted in the cloud. Lab has academic partnership with Amazon .Web Service, Oracle and SAP
8	Apple LAB iOS developers have great career opportunities. Department has focused on training students about iOS development and to help them building great career. Department has setup Apple lab. The lab is equipped with latest iMac, iPad Pro and Mac Pro. The lab offers development environment to students to create their apps for iOS. Lab is planning collaboration with Plan 9 program to motivate students for .launching their apps on App store and start earnings
9	Internet of Things Lab The Internet of Things Lab is a campus hub focused on learning, research and hands-on experimentation to discover and demonstrate the promise of the Internet of Things. IoT lab will also facilitate the Bring Your Own Device BYOD Architecture to encourage the students. This step improves the quality of education. Student may interact through his or her own devices to connect the department for curriculum-related activities. BYOD is most likely to cost effective and learning affecting for student individually as well as group studies. Computer science .department promote the BYOD culture for student, teacher and staff
10	COMPTECH SOCIETY
11	Advisor: Muhammad Munwar Iqbal Assistant Professor, CPSD Patron: Dr. Hafiz Adnan Habib Chairman CPSD ***Vision*** • ***To groom the talent of the students*** • ***To provide opportunities to arrange lectures, workshops and seminars as well*** ***Mission & Objectives:*** • ***To invite the speakers from all over Pakistan, so they can guide the students in their respective fields.*** • ***To provide the chance to collaborate with international computing and scientific societies*** • ***Through this platform, student will be able to participate in the competitions being held at other institutions.*** • ***To organize Extra Curricular activities and events for the Students in order to foster their intellectual, literary and artistic potentials*** ***Event Organized:*** • ***Web Programming*** • ***Poster Design*** • ***Crypto Challenge/Cryptography 3*** • ***UNO Card Game*** • ***Rubik's Cube*** • ***Minute to Win it*** • ***Closing Ceremony (Bonfire)*** • ***(QUICK CODING)*** • ***(WIN, DRAW or LOSE).***



FACULTY OF BASIC SCIENCES AND HUMANITIES 6

Dean

Prof. Dr. Mukhtar Hussain Sahir

DEPARTMENT OF BASIC SCIENCES AND HUMANITIES

Chairman

Dr. Muhammad Sultan

Assistant Professors

Dr. Nasir Siddiqui
PhD Mathematics (QAU, Islamabad)

Dr. Muhammad Sultan
PhD Chemistry (QAU, Islamabad)

Dr. Malik Sajjad Mehmood
PhD Physics, (PIEAS, Islamabad)

Dr. Azeem Shahzad
PhD Mathematics (QAU, Islamabad)

Dr. Muhammad Arshad Javed
PhD Physics (IU, Bahawalpur)

Ms. Safeera Batool
M. Phil Mathematics (QAU, Islamabad)

Mr. Zaffer Elahi
M. Phil Mathematics (UET, Lahore)
(on Leave for Higher studies)

Ms. Sumaira Nawaz
M. Phil. Islamic Studies (AIOU, Islamabad)

Ms. Naila Maqsood
M. Phil. Pakistan Studies (QAU, Islamabad)

Dr. Muhammad Altaf
PhD Statistics (China)

Dr. Muhammad Touqeer
PhD Mathematics (PU, Lahore)

Lecturer

Ms. Kulsoom Rahim
M.Phil Physics (QAU, Islamabad)
(on Higher Studies Abroad)

Mr. Muhammad Tariq
M.Phil Physics (QAU, Islamabad)

Ms. Andleeb Abbasi
M.Phil Mathematics (QAU, Islamabad)

Ms. Sumaira Rashid
M.Phil Mathematics (QAU, Islamabad)

Mr. Syed Zulqarnain Haider
M.Phil Mathematics (QAU, Islamabad)

Mr. Syed Sabyel Haider
M.Phil Mathematics (NUST, Islamabad)

Ms. Haleema Sadia
M.Phil Mathematics (QAU, Islamabad)

Mr. Jawad Ahmad
M.Phil Mathematics (QAU, Islamabad)

Mr. Syed Muhammad Abdul Rehman Shah
MA Islamiyat (UOS)
MSc Economics (QAU, Islamabad)
MS Islamics Banking and Finance (IIUI)

Ms. Fareeha Zaheer
M.A English (NUML, Islamabad)

Ms. Mariam Batool
M.A English (PU, Lahore)

Ms. Tehmina Farrukh
M.A English (NUML, Islamabad)

Ms. Sabahat Jaleel
M. Phil. Pakistan Studies (QAU, Islamabad)

The Department

The department was established in 1975 as a part of the University College of Engineering, Taxila and is as old as the institution itself. With the inception as an independent Univesity in October, 1993, the department has been placed under the Faculty of Basic Sciences and Humanities.

The department offers courses in Mathematics, Physics, Chemistry, Economics, Statistics, Islamic Studies, Pakistan Studies, Ethics and English. Mathematics is an essential pre-requisite and pivotal element for various fields of engineering and other sciences. In fact it plays a key-role for the comprehension of any subject of engineering and physical sciences. A practical engineer needs an adequate knowledge of modern mathematics to successfully cope with the complex real world problems. Therefore, all the degree programs offered by different engineering departments of the university have courses in applied mathematics, statistics and numerical analysis,etc.

The courses offered in the subjects of Applied Physics and Chemistry are very essential for forming the base of the engineering subjects. Also the essential practical work in these subjects is carried out as a support to the immense forthcoming engineering practical work. The curricula of Physics and Chemistry including the recent development are constituted so as to meet the pre-requisites of the engineering subjects. The contents of the courses are regularly revised so as to keep abreast of the fast progress occurring in the various engineering faculties.

Appropriate courses in Islamic Studies have also been constituted to be taught to the Muslim students of all engineering faculties. The purpose is to englighten the soul and mind of the students and enable them to get appraisal of tenets of Islam so that they may perform their duties with integrity and diligence when the future responsibilities of serving the nation will be bestowed upon them. The Non-Muslims students are offered courses in the subject of Ethics as well.

The subject of Pakistan Studies was introduced at all levels for undergraduate first time during 1982. This course has been designed as a compulsory subject for the sutdents at undergraduate level. The course frame work is issue oriented. It has many dimensions, the historical and ideological background of Pakistan, the process of governance and national development as well as the issue arising in the modern age and posing challenges to Pakistan. The course was desingned with a vision, the Pakistan Studies should open a window to future.

It is an established fact that English is an international language, so proficiency in English language is required to compete with the modern world. Different courses are offered in different departments to enhance student's English language skills for professional purposes. Effective communication skills include everything from facial expression to visual literacy, from anxiety management to verbal skills, from body language to document presentation. Students can become more effective communicators by cultivating competency through these courses. These courses include Technical Report Writing as well which enhances students to write well in professional life.

In future language lab will be established in the department so that students could practice listening and speaking skills. This project of language lab will be helpful to provide students an environment where they can practice language. Along with language lab, the department is planning to start spoken english courses in summers, especially IELTS and TOFEL for University students who want to go abroad for higher studies.

Research Extension and Advisory Services

The faculty members are actively engaged in research work and have produced a number of research publications, which have been published in scientific journals of repute and presented in national and international conferences and seminars. The current research fields of interest in the subject of mathematics are: mathematics in manufacturing, algebraic optimization, numerical analysis, integral equations, linear programming, queuing theory, quantum mechanics and Fluid Mechanics.

The research field interests in the subject of Physics are; Safety and Reliability of Nuclear Industry, Nano Physics, Study Material Properties with X-ray Diffractrometer (XRD), Optical Spectrometer and LCR Meter.

The research in the subject of Islamic Studies is being carried out in the field of "Seerat-un-Nabi and Political System of Islam". Islamic Banking & Finance and Interest Free Islamic Economic System.

MS Programs:

Keeping in view the importance of inter-disciplinary research, Engineers-Scientists effective collaboration, and better utilization of research potential of Basic Sciences Faculty; the department has already started the MS Program in Applied Physis and Mathematics. To facilitate MS students in their research, the department has signed a research agreement with National Institute of Laser and Optoronics (NILOP) on April 30, 2014.

SERVICES & COMMON FACILITIES

LIBRARY 7

1. MAIN LIBRARY

The Central Library of the University plays a vital role in dissemination of knowledge, teaching, research, and extension services. It has a seating capacity for about 400 readers at its different halls, which provide congenial conditions for study. The Library is stocked with encyclopedias, dictionaries, handbooks, standard specifications, yearbooks, almanacs, abstracts, indexes and a big reference collection of text and general technical books.

Library Timings:

Monday – Friday 08:00 am - 10:00 pm
Saturday 01:00 pm - 07:00 pm

2.LIBRARY RESOURCES

Library has 67550 books and huge collection of journals pertaining to engineering and applied sciences. The members have open access to library collections arranged at reference and circulation sections.

3.REFERENCE SECTION

Reference resources are located at the ground floor. They include the following:

(a) Reference Books: This section consists of dictionaries, encyclopedias, manuals, technical/industrial standards, plus one copy of each title pertaining to engineering disciplines etc.

(b) Thesis/ Dissertations: Thesis of MSc. Engineering and PhD students are available in this section.

(c) Periodicals/ Journals: Central Library has a vast variety of research journals, proceedings, coffee table magazines and newspapers.

(d) Computer Lab. This lab consists of 100 computers with free access to internet and electronic resources.

(e) CD/DVD Burn Facility: is also available to library users on providing a writable CD/DVD.

Readers' advisory service, reference services are provided to students, faculty members and research scholars. Library users can contact to the library personnel in the Journal/ Periodical Section OR In-charge Evening Shift regarding their queries. Reference resources are not borrowable/ transferable resources to any library user but one can borrow them conditionally with the permission of Librarian.

4. BOOK BANK

This section consists of textbooks recommended by the faculty. Every faculty member can CHECK OUT (borrow) 10 (ten) books while every undergraduate student is allowed to CHECK OUT (borrow) 08 (eight) textbooks for an academic session from this section.

5.CIRCULATION SECTION

This section plays a key role for providing books to readers. The readers may contact at Circulation Desk OR Assistant Librarian (Circulation) at the first floor regarding the matters relating to library membership, fine and clearance etc. This section consists of the following subjects:

- Engineering and allied sciences
- Social Sciences, Humanities, Literature and Religions
- Basic Sciences like Mathematics, Physics, Chemistry and Computer Sciences etc.

Library users can CHECK OUT (barrow) books under the library rules. Books holding (reservation) facility is also available for library users.

6. CENTRAL LIBRARY AUTOMATION SYSTEM

Central Library has launched its online web OPAC using Koha (an integrated library system). This ILS has been prepared according to international standards. Library users can check their CHECK OUTS, CHECK INs, borrowing status/history and fines. They also can prepare their private as well shared lists and can upload their own documents and much more through internet from anywhere, any time. To access the database please follow the link bellow:

http://web.uettaxila.edu.pk/uet/Library.asp

OR

Main university website >> Life at UET >> Library.

Please email us at: librarian.uett@gmail.com

OR

irfan.mirza@uettaxila.edu.pk

for any support required in this regard.

7. ONLINE RESOURCES

Digital Library

To meet the requirements of students and researchers of UET Taxila, the provision of quality scholarly information based electronic delivery through Pakistan Educational Research Network (PERN) is available in the Library. HEC has given the online access to online books of almost all major international famous publisher on a large number of subjects, hundreds of thousands journals, millions articles, thousands scholarly research thesis and many international databases free of charge through university intranet.

EBRARY

• ebrary offers a wide variety of multidisciplinary content. It acquires large number of titles from leading academic publishers. Users have full access to 142,000 ebooks through this source. This ebrary consists of the following areas.

- o Engineering and Allied Technologies
- o Computers and Information Technology
- o Pure Sciences
- o Life & Physical Sciences
- o Social Sciences & Humanities

ASTM

The ASTM Standards & Engineering Digital Library is a vast collection of industry-leading standards and technical engineering information. It covers a broad range of engineering disciplines, including aerospace, biomedical, chemical, civil, environmental, geological, health and safety, industrial, materials science, mechanical, nuclear, petroleum, soil science and solar engineering.

ONLINE ACCESSIBLE DATABASES

AMERICAN SOCIETY OF CIVIL ENGINEERING (ASCE)

- The ASCE Research Library provides access to more than 18,500 full-text papers from ASCE Journals and Proceedings.

ASSOCIATION OF COMPUTING MACHENERY (ACM)

- The ACM digital library contains full-text from 28 ACM Journals and Transactions, 10 ACM Magazines, over 40 ACM Special Interest Newsletters, 15 non-ACM journal and publications and over 100 annual conference proceedings.
- Content strengths include all areas of Information Technology, with full archival content for all ACM publications.

INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)

- IEEE database provides access to almost a third of the world's current Electrical Engineering and Computer Science literature.
- IEL provides full-text access to 132 IEEE and 45 IEE journals, magazines, transactions and conference proceedings as well as active IEEE standards.

AMERICAN PHYSICAL SOCIETY (APS)

- APS database provides access to 9 prestigious research publications
- Includes the five-specialist Physical Review Publications, and the PROLA archive.

AMERICAN ASSOCIATION OF PHYSICS TEACHERS (AAPT)

- Two AAPT publications provide up to date physics knowledge, at a level comprehensible for many users.
- AAPT publications assist in the learning of new and traditional teaching methodologies and the use of modern technology in Physics.

AMERICAN INSTITUTE OF PHYSICS (AIP)

- AIP database provides access to the full-collection of highly-rated of 11 Journals and conference proceedings.
- Covers developments in Physics, Industrial Applications (Applied Physics), and advances in Scientific Computing.

OPTICAL SOCIETY OF AMERICA (OSA)

- OSA database provides access to 8 peer-reviewed journals that set the publications standard for advanced optics research within each major sector of the field.
- OSA journals cover the full spectrum of optics research, including the fields of Physics, Materials Research, Atmospheric Studies, Visual Psychology, Biomedical Optics, Physiology, and Ophthalmology, as well as Mechanical, Computer, Electrical and Optical Engineering.

JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA (JASA)

- Since 1929 The Journal of the Acoustical Society of America has been the leading source of theoretical and experimental research results in the broad interdisciplinary subject of sound.
- The Journal serves physical scientists, life scientists, engineers, psychologists, physiologists, architects, musicians, and speech communication specialists.

ELSEVIER (Science Direct)

- Science Direct is the world's leading electronic collection of scientific journals.
- Renowned for the high-quality of its content in all branches of science, technology and medicine. Subscribed subject Areas

o Energy
o Engineering
o Computer Science
o Materials Science

ESDU - Engineering Solutions for Academia

- ESDU collection is based on industry standard tools and software as part of teaching and research projects.
- ESDU provide validated design guides, introductions, methods, data and software used in Industry and suitable for simple, rapid inclusion in these engineering programs:

o Aerospace Engineering
o Civil Engineering
o Chemical Engineering
o Material Science
o Mechanical Engineering
o Process Engineering
o Structural Engineering

MCGRAW HILL COLLECTIONS

Following collections of McGraw Hill are accessible in this collection:

- McGraw-Hill's Access Science
- McGraw- Hill's Access Engineering

PROJECT MUSE

- Project MUSE provides access to 430 full-text

journals from 108 publishers in humanities and social science. MUSE pricing meets library needs around the world. It covers almost all subjects like:

- Technology
- Languages & Linguistics
- Economics
- Social Sciences & Humanities
- Art
- Architecture
- Literature
- History & Culture
- Religions
- Philosophy and so on…

SCIENCE ONLINE

- Provides access to the full text of the prestigious Science publication.
- It allows users to search within Science and across a multitude of scientific journals.

SPRINGER LINK

- SpringerLink provides access to 503 full-text Springer-Verlag Journals and 738 full-text journals formerly published by Kluwer Academic Publishing.
- One of the world's leading information services for Science, Technical and Medical journals.

TAYLOR & FRANCIS JOURNALS

- Taylor & Francis has grown rapidly over the last two decades to become a leading international academic publisher.
- More than 1000 journal titles including over 780 journals are listed in the 2010 Thomson Reuters, Journal Citation Reports® in a full range of disciplines like:

- Engineering, Computing & Technology
- Environment & Agriculture
- Business, Management & Economics
- Chemistry
- Mathematics & Statistics
- Physics
- Library & Information Science
- Media, Cultural & Communication Studies
- Social Sciences and more…

WILEY-BLACKWELL JOURNALS

- Since the Blackwell-Synergy merger with Wiley-Interscience, all the journals available to HEC consortium are now available through Wiley-Interscience.
- Online database containing over 1,234 journals in science, technology, medicine, humanities and social sciences.

FREE MEDICAL JOURNALS

- 47 leading international medical Journals available through "Highwire Press", without any registration.

8. VIDEO CONFERENCING FACILITY

Video conferencing facility is available in accreditation with HEC. This facility is used to bring people at different sites together for a meeting. This can be as simple as a conversation between two people in private offices (point-to-point) or involve several sites (multi-point) with more than one person in Videoconferencing Hall at different sites. Besides the audio and visual transmission of meeting activities, videoconferencing can be used to share documents, computer-displayed information, and whiteboards.

LIBRARY MANAGEMENT

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TECHNICAL JOURNAL

Technical Journal is a quarterly publication of UET Taxila recognized by HEC in "Y" category. It is published regularly with a key objective to provide the visionary wisdom to academia and researchers to disseminate novel knowledge and technology for the benefit of society. Technical Journal is indexed with well recognized following international database:

- **AGRIS DATABASE**
- **Aluminum Industry Abstracts**
- **ANTE: Abstracts in New Technology & Engineering**
- **Ceramic Abstracts**
- **Civil Engineering Abstracts**
- **Computer and Information Systems Abstracts (Module)**
- **Copper Technical Reference Library**
- **Corrosion Abstracts**
- **Directory of Research Journals Indexing**
- **Earthquake Engineering Abstracts**
- **EBSCO DATABASES**
- **Electronics & Communications Abstracts**
- **Engineering Research Database**
- **Engineered Materials**
- **Environmental Engineering Abstracts**
- **Environmental Science and Pollution Management**
- **Library of Congress, USA**
- **Materials Research Database**
- **Mechanical & Transportation Engineering Abstracts**
- **Metadex**
- **OCLC World Cat**
- **ProQuest Products**
- **PASTIC SCIENCE ABSTRACTS**
- **Solid State and Superconductivity Abstracts**

Submission of paper remains open round the year. Researchers and Academia can submit their papers at any time which they deem fit. Presently there are no charges for publication of research paper in Technical Journal

Office Bearer of Technical Journal:

1. **Dr. Hafiz Adnan Habib**
   Chief Editor
2. **Engr. Mubashir Nawaz Warraich, TI**
   Managing Editor
3. **Muhammad Anwar**
   Managing Editor
4. **Asif Ali**
   Editor/Secretary Editorial Board
5. **Engr. Tasawer Khan**
   OJMS Coordinator
6. **Khalil Ahmed**
   Composer

NETWORK ADMINISTRATION AND RESEARCH CENTER (NARC) 8

Director Networks

Prof. Dr. Adeel Akram

Web Manager

Engr. Ulfat Hussain

Mission

NARC Research Facilities

Network Administration and Research Center (NARC) was founded to provide better support and services to the University. NARC is an outcome of University Computerization and Network Enhancement Program (UCNEP) project. Under UCNEP project, state of the art equipment was procured and latest technology was introduced to enhance the quality of communication infrastructure, existing Lab facilities and processes of the University.

NARC is responsible for design and development of networking infrastructure within University campus and sub campuses. It also provides 24 hour internet facilities for the university. Wireless hotspots are available in campus of the of the university to use internet and Intranet services for students and researchers.

NARC staff comprises of highly skilled, well qualified and technically competent workers who perform their tasks as a passion of their life.

NARC is not only limited to provide services to the University and its sub campuses, it also helps in providing technical assistance to other projects of national interest. NARC staff is actively involved in providing consultancy services to other universities and educational institutes, thus contributing towards the development of IT infrastructure of Pakistan.

NARC provides 24 hours research facilities to PhD scholars and researchers. All facilities provided by NARC are available round the clock. This includes Digital Library which provides free access to research papers and technical material from leading international forums and organizations around the world. It also provides High Performance Computing (HPC) facilities for students and researchers.

Necessary equipment required to complete the students in their semester and final year projects is provided free of cost to the students. Moreover

technical guidance is also provided to them. NARC hosted the 17th International Conference on Microelectronics (ICM'05) held in December 2005 and ICOCN-07(International Conference on Optical Communication and Networks)

NARC is currently providing support in the following areas:

- Wireless Adhoc Networks
- Wireless Mesh Networks
- Network Routing
- Network Simulation
- Stateful inspection Firewalls
- Optical Fiber
- Secure VoIP communication
- Clusters and Grid Computing
- WiFi
- Blade Server
- Students Email Service using Google Apps
- Central Storage System for Faculty and Students
- Online Course Management System

NARC is working in collaboration with national and international technological leaders to provide state of the art equipment and cutting edge technology to the University.
NARC is also working as Cisco Local academy for CCNA & IT Essential certification courses.

DIRECTORATE OF ADVANCED STUDIES, RESEARCH AND TECHNOLOGICAL DEVELOPMENT (ASR&TD)

9

The Directorate of ASR&TD, which functions under the supervision of the Director, is the secretariat of the Board of Advanced Studies, Research and Technological Development. The Board comprises the Vice-Chancellor (Chairman), all the Pro-Vice-Chancellors, all the Deans, one University Professor from each faculty, one technologist, five members from the Industries and the Director of ASR&TD. The Directorate performs a variety of functions to promote research, extension and advisory services in the University. The purpose of these functions is to:

a. Regulate MSc and PhD programs.
b. Provide funds and monitor faculty research.
c. Provide funds for M.Sc. Engg. and PhD research.
d. Approve thesis titles, supervisors and examiners.
e. Co-ordinate the Split PhD program with foreign Universities, Government of Pakistan.
f. Arrange visits of Pakistani Experts to give Workshops/Seminars in their field of expertise under TOKTEN program.
g. Arrange visits of foreign Professors to the University and vice-versa.
h. Award of Research Assistant-ships.
i. Sponsor collaborative research work in engineering and allied disciplines at the University and promote the research work.
j. Assist the Departments in organizing Post-graduate Programs, extension lectures and seminars.
k. Coordinate advisory services of the University for the benefit of the Government departments and industries.
l. Arrange evaluation of Research publications of faculty members and publishing of Research Journal of the University.
m. Make arrangements for Extension Lectures of Senior Professors from foreign countries, under the proposed British Council Specialists visits to Pakistan and TOKTEN Schemes.
n. Arrange for PhD Programs in the University.
o. Regulate an endowment fund for Higher Education and R&D in IT & Telecom Division at University of Engineering & Technology, Taxila, created for an amount of Rs. 100 million. The main objective for the establishment of endowment fund is to provide a continuous service of funding the University for producing around four PhD and six MSc in the field of Signal Processing every year. Fund would be available for man power development in the following fields:
   (1) Computer/Data communication
   (2) Image Processing
   (3) Simulation and Modelling
   (4) Wireless communication

DIRECTORATE OF STUDENTS AFFAIRS 10

The primary function of the directorate is to organize extra-curricular activities of the students and to foster their intellectual, literary, and artistic potentialities, which remain untapped in the classroom. It functions normally through a large number of clubs and societies; each devoted to some sport or cultural and artistic activity. The students join these clubs and societies according to their inclinations and aptitudes. Another function of the directorate is to maintain liaison with a wide cross-section of students and to be responsive to their needs and problems. The directorate also works to promote, amongst students, respect for the dignified and disciplined behaviors befitting a university student and prospective member of the honored community of engineers of Pakistan. Following are the committees and societies functioning at UET-Taxila.

- **Quaid-e-Azam Debating Society (QDS)**
- **University Art and Culture Society (UACS)**
- **An-Nisa Girls Scholars Society**
- **UET Adventure Club**
- **Environmental & Horticultural Society**
- **Rashid Cheema,Helath & Blood Donor Society (RCHBDS)**
- **Al-Mohandis Literary Society**
- **Character Building Society**
- **Students Counseling and Guidance Bureau**
- **UET Media Club**
- **National Youth Assembly as Student Society**
- **Disaster & Crises Management Cell**
- **Technical Societies***

Technical Societies*

Sr. #	Faculty	Department	Society
1	***Faculty of Electronics & Electrical Engineering***	Electrical	Institute of Electrical & Electronics Engineers (IEEE)
			Society of Innovative Electrical Professionals (SIEP)
			American Institute of Aeronautics and Astronautics (AIAA)
		Electronics	IEEE Consumer Electronics Society
2	***Faculty of Telecom & Information Engineering***	Computer	Taxilian Robotics & Automation Club (TRAC)
		Software	SOFTDESK
		Telecom	Society of Telecom Engineers & Professionals (STEP)
3	***Faculity of Civil & Environmental Engineering***	Civil	Society for Traffic & Road Safety (STARS)
			Institute of Civil Engineers (ICE)
4	***Faculty of Mechanical & Aeronautical Engineering***	Mechanical	American Society of Heating Refrigerating & Air Conditioning Engineers (ASHRAE)
			Institute of Mechanical Engineers (IMECHE)
			American Society of Mechanical Engineers (ASME)
5	***Faculty of Industrial Engineering***	Industrial	Institute of Industrial Engineers (IIE)

DIRECTORATE OF SPORTS 11

The University provides ample facilities to the students for participation in games and sports, both outdoors and indoors. A Sports Committee comprising University teachers supervises the sports activities. Facilities are provided for all the major sports including cricket, hockey, football, tennis, badminton, basketball, squash and athletics. A series of inter-faculty and inter-hostel tournaments are held to provide participation to the maximum number of students. Outstanding sportsmen are encouraged to take part in the inter-university tournaments.

The outstanding players are also participating in National level events likely hockey, volleyball and athletics. The exercise facilities are provided in the Gym in early morning and in the evening. Major types of fitness and exercise machines are available in the university.

HALLS OF RESIDENCES 12

The University has limited provisions for hostel accommodation at the Campus for both male and female students. The halls of residence for male students have an accommodation for about 1350 students and are named as:

- Iqbal Hall
- Quaid-e-Azam Hall
- Abu Bakar Hall
- Umer Hall
- Usman Hall
- Ali Hall
- Bilal Hall
- Ayesha Hall (For Females)

In order to overcome the shortage of hostel accomodation for first year students a new Bilal Hall is ready for 2016 session. A separate hall for international students has been approved and will be constructed in near future. Another Hall for female students has also been approved. It will have an accommodation for 100 students.

The management of the halls is supervised by the Senior Warden. Each hall is looked after by Resident Tutor/s being faculty members.

The students themselves manage many aspects of life in the halls. The halls are provided with common rooms, dining halls, canteens, mosques and other such places of common utility. Each hall has its own mess with adequate messing and dining facilities. The mess is run on a no-profit no-loss basis. A Students Mess Committee under the supervision of a Resident Tutor regulates the weekly menu, finances, billing and quality of the food.
The students are required to abide by the rules and regulations governing residence in the University halls and are encouraged to develop community life conducive to healthy growth of the social aspects of their personalities.

Internet Facilities in the Hostels

The University has 16 Mbps internet bandwidth from PERN (Pakistan Educational Research Network) and provides high speed internet connectivity to all resident students in the hostels. All the rooms of Iqbal Hall are connected with LAN of the University through five switches deployed at RT Room. These switches are connected to the Network Administration and Research Center (NARC) through optical fiber connectivity. The resident students are allowed to use LAN facilities in their rooms to make their assignments and other research work assigned to them. Quaid-e-Azam Hall is also connected through optical fiber with NARC, while the other hostels are connected through UTP cables. The students are provided with Wireless Connectivity in these hostels.

ESTATE OFFICE 13

The University Campus spreads over 163 acres of land, and requires considerable efforts to keep the gardens, lawns, roadside rows of trees and flower-beds in good trim. The efforts of this office give the Campus a pleasing look, which attracts a large number of visitors in the mornings and evenings. For the convenience of the students, a shopping centre is located near the University hostels. This centre has a laundry, a general store, stationery and fruit shop. The office looks after security, sanitation, maintenance of lawns and gardens, and shopping facilities at the campus. It has a large squad of uniformed watchmen who guard the University buildings and property. Its sanitation staff keeps the buildings, roads, lawns, and other spaces clean and tidy.

TRANSPORT 14

Adequate transport facility is provided for students and the buses are plying between Rawalpindi, Islamabad, Hassan Abdal, Wah Cantt. and the campus. This facility is, however, not obligation of the University and it can be reduced or terminated if the policy and/or the financial conditions so demand.

DUES/SCHOLARSHIP SECTION 15

This section deals with all kinds of fee/dues, schlorships, stipends, loans and fee concession under the charge of the Treasurer. The University provides generous financial assistance to the meritorious and needy students. At present following schlorships/stipends are available for the University Students.

LIST OF SCHOLARSHIPS/STIPENDS

sr. #	Nature of Scholarships / Stipends	Funding Agencies / Departments / Donors
1	University Merit Scholarship	UET, Taxila
2	University Welfare Scholarship	UET, Taxila
3	Scholarship/Stipend for Afghan Students	Ministry of The Inter Provincial Coordination Islamabad
4	Scholarship for IOK Students	Ministry of The Inter Provincial Coordination Islamabad
5	Students From Kashmir (AJK)	Kashmir Affair Division, Islamabad
6	ICT Scholarship	Ministry of Information Technology
7	Students From Fata & Baluchistan	Higher Education Commission, Islamabad
8	Need Based Scholarship	Higher Education Commission ,Islamabad
9	Scholarship for Army Children	Fauji Foundation
10	Talent Scholarship	Directorate of Education, Gilgit Baltistan
11	Talent Scholarship	Quetta, Directorate
12	Board Scholarship	FBISE, Islamabad
13	Board Scholarship	Concerned Directorates
14	Scholarship to needy Students	Pakistan Engineering Congress.
15	Scholarship to needy Students	Pakistan Diya Foundation
16	Scholarship to needy Students	Fauji Fertilizer Company
17	Scholarship to needy Students	Punjab Educational Endowment Fund, Lahore
18	Scholarship for Faisalabad Students	Killa Gift Trust

19	Scholarship for Muzaffar Garh Students	Gurmani Foundation Scholarship
20	Semester Fee to Students	Karwan-E-Ilam Foundation
21	Scholarship/Financial Assistance	Punjab Worker Welfare Fund, Organizations
22	Semester Fee to Needy Students	Pakistan Bait-Ul-Mal
23	Semester Fee to Needy Students	Bestway Foundation Scholarship
24	Loan For Needy Students	National Bank Of Pakistan
25	Semester Fee to Student+Mess Charges	(TFP Sch) A. Mateen Ansari Memorial Sch.(AMS)
26	Miscellaneous Finacial Assistance	Concerned Donors, Agencies & Corporations etc.
27	Schlorship For Needy Students	Saudi Arabian Center (IEP-SAC)

HEALTH FACILITIES 16

The University provides medical facilities to its employees and students. Salient features of the existing health policy for students are listed hereunder:

a. Students will be provided free consultation by the Medical Officer.
b. Available medicines will be issued to students through authorized prescription only.
c. Night dispensary service will be available in emergency only.
d. In acute emergency, where a student cannot move, immediate report be made to RT who will make arrangements for further treatment under rules (i.e.ambulance, consultation, admission etc.).The expenditure shall be borne by the student.
e. Boarders will be required to fill in the proforma of previous medical history mentioning the disease he carries.
f. Indoor treatment from unauthorized medical attendants is not allowed.

ADMISSION/REGISTRATION OFFICE 17

The Section deals with matters relating to admission, registration and placement of students at undergraduate level and verification of documents, migration cases and miscellaneous certificates under the charge of Registrar.

PLACEMENT OFFICE 18

The Placement Office at UET Taxila is to search and develop contacts mainly with the national and multinational industries in public as well as in private sectors and R&D organizations with an aim to identify the prospective employers, jobs, scholarships and industrial training for university students.

Office assist current and potential graduating students and alumni in the overall process of self-evaluation, career assessment and job search. In this regard, our objective is to connect our graduating students with meaningful career prospects by strategically aligning their academic qualifications with their goals and interests.

This office offers our Students, Alumni and Employers the following services:

1. Career Advisory Group (CAG)
2. Career Counseling (One-to-One/Group)
3. Resume and Cover Letter Assistance
4. Workshop for Resume writing/skills
5. Interviewing Skills
6. Internship Guidelines
7. Job Search Strategies
8. Letter of Recommendations
9. Career - Development Seminars

It plays the role of a bridge between university graduates and employers, scholarships donors, and to have financial assistance or loans etc. Hence placement office is committed to provide friendly and proficient services to the university students, graduates, employers and scholarship donors.

Facilitating fresh graduates of all degree programs of the university in finding their dream jobs and helps pursuits for lucrative career opportunities for the alumni. So it serves as a platform for linkage of academia and industry and bridges the gap, thus making it possible for real-time industrial input in the engineering curricula.

The office matches the great talent coming out of various engineering departments at the university with highly sought-after Global employers. Placement office advertises the university product i.e. graduating engineers in the job market. For this purpose an annual mega event i.e. Open House and Career Fair is organized in which leading national industries are invited to visit the university to have

- A meeting place to the Institute's senior students and their prospective employers.
- An effective platform for industry-university interaction.
- An opportunity for the industry representatives to acquaint themselves with the academic environment provided to the students.
- Witness Final Year/Term Projects' exhibition
- Interview/evaluate graduating students for employment
- Visit lab facilities
- Discussion for industrial problems with faculty members of various disciplines
- Right possibilities of industry-academia collaboration

It provides career counseling and placement services and arranges an array of activities such as company-profile presentations, on-campus recruitment, organizing workshops on effective CV-writing and interviewing skills, and job exploration seminars etc. The aim is to help the students/alumni and the corporate sector in choosing from the best available options and making the right match.

It also provides information to the students about the recent jobs and scholarships available by displaying the information on the official notice boards frequently. Students get to know the different areas where they can grow as engineers and enhance their natural and technical skills which they developed during their stay as students in the University. It frequently arranges visits of the prospective employers and their discussion with faculty members and students of relevant departments regarding the emerging need and training of the students in the same direction. The placement office facilitates various organizations in the process of pre-selection of students who are about to complete their studies by arranging tests and interviews of prospecting candidates for placement in the industry. As a result, the Placement Office maintains a mailing list of major companies employing engineers who are constantly informed about the graduating classes at appropriate time.

A short list of industries in which our graduates are regularly employed:

- NESPAK
- PTCL
- Lafarge Cement
- Fauji Cement Limited
- WAPDA Academy
- OGDCL
- Attock Refinery Limited
- Nayatel
- ZTE
- Ufone
- Pakistan Ordinance Factories
- Heavy Mechanical Complex
- Heavy Industries Taxila
- Pakistan Aeronautical Complex Kamra
- KSB Pumps
- K-Electric
- Huawei

International Linkages

UETT is a multi-disciplinary university involved in internationally relevant engineering developments. And International study is a very significant part of the educational goals and strategic plan of UET Taxila. Globalization of the campus and the curriculum is specifically part of our core values. Through wide and ambitious portfolio of research capability, UETT is today connected with research institutions, industry and businesses around the globe.

The Directorate of International Linkages (IL) expands the international scope of the University by developing official agreements with universities abroad. International linkages build knowledge and shape new schools of thought and discovery. In addition to this we are increasing the number of exchange institutions and expanding into new countries so that opportunities for connections continue to grow in order to facilitate the exchange of students and faculty.

International Linkages advances internationalization at UETT by:

- Growing the number of UETT students to study abroad and international students to study at UETT;
- Facilitating faculty exchanges both here and abroad for collaborative research and professional development; and
- Providing weekly opportunities for campus- and local-community members to learn about the hottest topics on the global stage today.

Taking Benefit of International Linkages

For students, participating in an exchange programme is an exciting and challenging way of broadening their horizons. It provides an opportunity to gain experience of living and studying in a new culture and environment. During the programme, students are provided a unique chance to:

- Globalize and enhance their educational experience
- Explore career opportunities through networking
- Broaden their personal and educational perspectives
- Explore, appreciate and understand different cultures
- Improve language skills and cultural understanding
- Eliminate fear and prejudice among nations

UETT currently has signed MOUs with the following universities:

Europe

- Hasselt University, Belgium
- Fachhochschule Dusseldorf (FH-D),
- University of Applied Sciences, Germany
- Halmstad University, Sweden
- Lecberac, Czech Republic

Africa

- Alexandria University, Egypt
- Egypt-Japan University of Science and Technology, Egypt

Asia and Asia Pacific

- Peking University, China
- Tsinghua University, China
- Wuhan University, China
- Huazhong University of Science and Technology, China
- Islamic University of Technology, Bangladesh
- Institute for Sustainable Energy Policies (ISEP), Japan
- Seoul National University, Korea
- Universiti Teknologi Malaysia
- Universiti Tunku Abdul Rahman, Malaysia
- Asian Institute of Technology, Thaliand

International Alumni

UETT regularly attracts international students from Middle East and Africa including Palestine, Yemen, Jordan, Afghanistan, Bosnia, Thailand, Syria, India, Sudan, Somalia. Since 2009, about 130+ foreigner students got admission for their Bachelor degree at UETT.

PLANNING AND DEVELOPMENT CELL 19

The planning and development cell at UET Taxila is responsible for preparation, approval and execution of infrastructure development projects with the coordination of Planning and development wing of Higher Education Commission, Islamabad. Furthermore, Monitoring and follow-up of all development projects are conducted with the collaboration of Monitoring and Evaluation wing of HEC in order to ensure the smooth implementation of the projects.

INFRASTRUCTURE DEVELOPMENT PROJECTS

1. Ongoing Projects:

The following projects are ongoing and are expected to be completed within the year 2016:

- Construction of 300-Boys Hostel
- Construction of Combined Academic Block
- Sewerage and Disposal with Primary Treatment

2. Newly Approved Projects:

A new project titled "Commencement of 4-Year Undergraduate Program in Water Resource Egineering and Petroleum Engineering at UET Taxila" has been approved from Federal Ministry Higher Education Commission, Islamabad, in December 2015. The execution of the project has been initiated by the respective Project Director.

3. Projects in approval stage:

UET Taxila is going to establish its Sub Campus at Pind Dadan Khan, District Jhelum in order to promote the quality education and provide access to higher education to the local youth those from disadvantaged backgrounds. The PC-1 of the project is under approval stage from Higher Education Department, Government of Punjab.

CORE TEAM

1. Ms. Amna Arshad
   Acting Deputy Director (P&D)
2. Mr. M. Naeem Bhatti
   Assistant
3. Zia Uddin
   Junior Clerk
4. M. Mubasshar Saleem
   Naib Qasid

Quality Enhancement Cell

QUALITY ENHANCEMENT CELL

The Quality Enhancement Cell was established at UET Taxila on 7th February 2011 in Phase-IV under the directions of Higher Education Commission, Islamabad. It is entrusted with the task to promote education for effective management of standards and quality of programs at all levels. It requires the developing quality assurance processes and methods of evaluation to maintain high educational standards of UET. These academic activities at UET are being regularly monitored by Quality Assurance Agency (QAA), HEC through Quality Enhancement Cell (QEC).

QUALITY ASSURANCE

It is observed that almost all the national universities, have similar scheme of studies for respective degree programs with minor variations, thanks to the information sharing in the age of IT. But the quality of outgoing graduates from these universities is conspicuously variant. We need to accept, that most of the universities here do not meet the international quality criteria. It is this dismal state of affairs, where most of our efforts needs to be focused. This is the only way to achieve value addition, international competitiveness and consequently, socio-economic up gradation. Seemingly, this idea became the founding stone of the Quality Assurance Agency (QAA), formed by the HEC. It has evolved well organized policies with quantifiable parameters of quality, required to enhance the educational standards in Higher Education.

SELF ASSESSMENT OF THE PROGRAMS PROGRAM TEAM

Self Assessment of academic programs is conducted by Program Team (PT), a group of professionals who are nominated by the head of the department. PT is responsible for writing of Self Assessment Report (SAR) and acts as a contact/focal group during the period of assessment process.

ASSESSMENT TEAM

Assessment Team (AT) is a group of professionals who will review the SAR prepared by the PT and give its findings in the form of AT Report. External Members from other Universities have been included in AT. Self Assessment of following departments has been completed:-

- Electrical Engineering Department
- Mechanical Engineering Department
- Civil Engineering Department
- Computer Engineering Department
- Software Engineering Department
- Telecom Engineering Department
- Environmental Engineering Department
- Industrial Engineering Department
- Electronics Engineering Department
- Electrical Engineering Department- 2nd Cycle
- Mechanical Engineering Department-2nd Cycle
- Civil Engineering Department – 2nd Cycle

Sub-Campus Chakwal

- Electronics Engineering Department
- Mechatronics Engineering Department

Self Assessment Process of following departments is under process:-

Electronics Engineering Department
Civil Engineering Department – 2nd Cycle
Software Engineering Department – 2nd Cycle
Computer Engineering Department – 2nd Cycle
Telecom Engineering Department – 2nd Cycle

MEMBERSHIPS

University of Engineering and Technology, Taxila is member of Asia Pacific Quality Network (APQN).

ESTABLISHMENT OF QEC'S AT AFFILIATES

In order to improve quality of education and monitor their academic pursuit, QEC's were established at following affiliated institutes of UET Taxila during 2014. SAR process has also been initiated at these institutes:-

- CASE Islamabad
- APCOMS Rawalpindi
- KICSIT Kahuta
- SCET Wah Cantt
- iUSE Rawalpindi
- OIST Islamabad

QEC TEAM

Mr. Iftikhar Ahmad	Deputy Director
Mr. Faisal Shahzad	Data Analyst
Mr. Tauqeer Ahmed	Lab Engineer
Syed Salman Asif	Computer Operator
Syed Aftar Hussain Shah	Naib Qasid

Teaching and Examinations

Regulations Relating to Semester System of Teaching and Examinations for Bachelor Degree Programmes of the University of Engineering and Technology, Taxila.

a. Short Title, Commencement and Applicability:

i. These Regulations shall be called "The University of Engineering and Technology Taxila Regulations relating to Semester System of Teaching and Examinations for Bachelor Degree Programmes".

ii. These shall come into force with immediate effect for under graduate degree Programmes of the University and will be applicable for all enrolled students.

b. Definitions:

i. "Academic Council" means Academic Council of the University.

ii. "Academic Year" means a year normally consisting of two regular (i.e. Fall and Spring) semesters of 18-20 weeks duration each and one optional (i.e. Summer) semester of 9-10 weeks duration inclusive of examinations, internships or any other academic activity.

iii. "Board of Undergraduate Studies" means the Board of Undergraduate Studies of the concerned Academic Department of the University.

iv. "Candidate" means a student who intends to appear in an Examination.

v. "Casual Student" means a student who is not on the rolls of the University after passing out his session i.e. after completion of his minimum degree duration period but is otherwise eligible to take the courses and to appear in the examination. He shall, however, be governed by the University Examinations and Discipline Rules & Regulations.

vi. Chairman" means the Chairman of the concerned Academic Department of the University.

vii. Controller of Examinations" means the Controller of Examinations of the University.

viii. "Contact Hours" means the total number of lectures, tutorials and laboratory hours per week.

ix. "Course" means separate Theory or Practical part of a subject.

x. "Course Teacher " means a person appointed by the competent authority, who teaches a course and then evaluates the students as per University rules and procedures.

xi. "Credit Hour" means1 hour of theory lecture or 3 hours of practical work in a course per week for the semester.

xii. "Cumulative Grade Point Average (CGPA)" means the credit-hour weighted average of the Grade Points earned for all the courses in all the semestes attended.

xiii. "Dean" means the Dean of the concerned Faculty.

xiv. "Department" means an Academic Department of the University.

xv. "End Semester Examination" means the examination to be held at the end of each semester separately for theory & practical part on such dates as the University may determine.

xvi. "External Examiner" means a person holding suitable qualifications in relevant discipline who is neither a teacher in the University nor has taught the subject to the class/section during the semester for which the examination is being held.

xvii. "Faculty" means the concerned Faculty of the University.

xviii. "Grade" means the letter grade earned by a student in theory & practical part of a course separately depending on his performance in that course.

xix. "Grade Points" means the points (numerical value) associated with each letter grade.

xx. "Internal Examiner" means the teacher/ person appointed by the Competent Authority who has been teaching the subject to the class/section during the semester for which the examination is being conducted.

xxi. "Mid Semester Examination" means the examination to be held after eight (08) weeks of teaching in case of regular semesters and after four (04) weeks of teaching in case of optional semester on such dates as the University may determine.

xxii. "Neutral Examiner" means a teacher of the University holding suitable qualification in the relevant discipline who has not taught the subject to the class/section during the semester for which the examination is being held.

xxiii. "Practical Part" means the Laboratory part of the subject as prescribed in the detailed syllabi approved by the competent

authority, whose successful completion shall be the requirement of the Degree.

xxiv. "Regular Student" means a bonafide student while enrolled during the minimum duration of a degree programme of this University and who does not maintain admission simultaneously in any other degree/diploma programme of this University or any other institution.

xxv. "Semester" means a declared duration covering 18-20 weeks of teaching in case of regular semester and 9-10 weeks of teaching in case of optional semester including examinations.

xxvi. "Semester Grade Point Average (SGPA)" means the credit-hour weighted average of the Grade Points earned for all the courses in a semester.

xxvii. "Subject" means a course of studies as prescribed in the detailed syllabi approved by the competent authority, whose successful completion shall be the requirement of the Degree.

xxviii. "Syndicate" means the Syndicate of the University.

xxix. "Theory Part" means the theoretical part of the subject as prescribed in the detailed syllabi approved by the competent authority, whose successful completion shall be the requirement of the Degree.

xxx. "University" means the University of Engineering and Technology Taxila.

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

c. **Explanations:**

In these regulations: -
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, and vice-versa.

d. **Academic Programmes:**

Bachelor of Science Degree shall be awarded in the following disciplines:

i. Civil Engineering
ii. Computer Engineering
iii. Electrical Engineering
iv. Electronic Engineering
v. Environmental Engineering
vi. Industrial Engineering
vii. Mechanical Engineering
viii. Software Engineering
ix. Telecommunication Engineering
x. Computer Science
xi. Mechatronics Engineering (ChakwalCampus)
xii. Electronic Engineering (Chakwal Campus)
xiii. Any other discipline as and when approved by the University Authorities

e. **Academic Calendar:**

The Bachelor's Degree Programme shall be spread over four academic years (i.e. minimum Eight Regular Semesters). Each academic year shall consist of two regular teaching semesters i.e.; Fall and Spring and an optional Summer semester. In case of regular semesters (i.e. Fall and Spring) there shall be sixteen weeks of teaching.End Semester Examination shall be held in the seventeenth and eighteenth weeks. While in case of Summer semester, ninth week shall be for End Semester Examination. The Director Academics shall notify academic schedule of complete year for its Fall, Spring and Summer Semesters for the convenience of students and faculty members mentioning the following:

i. Semester registration date
ii. Semester starting date
iii. Mid semester examination week
iv. Semester termination date
v. End semester examination weeks

Students shall be responsible to meet the requirements and deadline published for each semester in the academic calendar. Students shall also be expected to know and adhere to the rules, regulations, course loads and policies of the University as well as those of the departments in which they are enrolled.

Part-I. GENERAL

a. **Duration of the Degree Programme:**

- The minimum duration of the degree programme shall be four academic years (i.e. Eight Regular Semesters). While the maximum duration allowed is seven years.
- Notwithstanding anything to the contrary contained in these regulations, no candidate shall be admitted to an examination after the expiry of seven academic years. This period shall be counted from the date of his registration to the first semester in the University. Provided that in case a candidate is admitted directly to a higher class (by migration or transfer of credits), he shall not be admitted to an examination after the expiry of the remaining period for the session to which he is admitted.

b. **Credit Hours for the Award of Degree:**

- The total number of credit hours required for the award of degree shall be 130-136 while the number of credit hours per semester shall be 15-18 (exclusive of additional courses). The courses of study, the credit hours allocated to each subject, the total credit hours offered in a semester and the detailed syllabi shall be as approved by the competent authority.

c. Minimum CGPA for the Award of Degree:

- A minimum CGPA of 2.0 for the total passed semesters of a degree programme shall be required for the award of degree. The student affected by this regulation shall have the option to repeat the courses in which his grade is less than C- within the maximum allowable time period.

d. Medium of Instructions:

- 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 shall be either Urdu or English.

e. Repeateing and Improvement of Courses:

- An academically deficient regular student shall be allowed to repeat / improve the courses during the summer semester if offered as well as during the regular semesters whenever the teaching and examination schedule makes it possible for him to register himself for the courses and to take the mid and end semester examination. While the academically deficient casual student shall be allowed to repeat/ improve the courses either during summer semester or whenever the teaching and examination schedule makes it possible for him to register himself for the courses and to take the mid and end semester examination. In case of repetition/ improvement of a course the student shall have to pay course registration and examination fee as prescribed by the University. It shall be noted that a student can only improve a grade lower than C- (i.e. D & F).

f. Registration of Additional and Summer Semester Courses:

- An academically deficient student (i.e. Regular and Casual) shall be allowed to get himself registered for two courses at maximum irrespective of the credit hours in a summer semester. An academically deficient regular student will also be allowed to get himself registered for two additional courses at maximum with lower semesters if offered with his regular semester. Whereas an academically deficient casual student will also be allowed to get himself registered for five courses at maximum with lower semesters if offered in regular semesters.

g. Summer Semester:

i. Summer semester shall be primarily for those students who want to repeat / improve certain courses to make up for their academic deficiencies.

ii. An academically deficient student (i.e.Regular and Casual) shall beallowed to get himself registered for two courses at maximum irrespective of the credit hours in a summer semester.

iii. The minimum strength to offer a course in Summer Semester will be Five (05) students. However the Chairman of the concerned Academic Department may be empowered to decide the number of students to be registered in the courses offered in summer semester instead of the condition of minimum five (05) students for final year only.

iv. Teaching Shall be mandatory for all offered courses in summer semester.

v. The contact hours during the summer semester shall be doubled to ensure that the course is completely taught in a summer semester with half of the duration compared to regular (Fall or Spring) semester.

vi. Letter Grade awarded during summer semester shall not be more than a “B” grade. Also no “I” grade will be awarded in summer semester.

vii. The registration, attendance, conduct of examination and result display policies etc. during the summer semester shall be same as in regular semester.

viii. It shall be in the best interest of the students to clear their failed courses or the courses where they want to improve their grades by repeating the courses as early as possible. The University will not be responsible to offer failed or improvement courses in the final year unless and until the other conditions of summer semester registration are fullfiled.

Part-II. SEMESTER REGISTRATION

The registration of the students for each semester other than the first semester shall be made by the concerned Academic Department of the University. The registration for the first semester shall be made by the Registrar of the University.

a. The registration of the students for each semester shall be made in accordance with the Academic Calendar notified by the Director Academics. The application forms shall be obtained from the office of the Chairman of the concerned Department. The students shall submit the forms duly filled up to the Chairman of the Department. After necessary verifications, the Chairman of the Department will notify the list of registered students within ten days of the start of regular semester and four days of the start of summer semester. He will also forward these lists to all concerned within a week.

b. In case of a regular semester, if a student misses his registration for cogent reasons, a fine of Rs.10/- per day will be charged for a period of ten days after the last date fixed for payment of fee and charges. After that, the name of the defauter will be removed form the rolls of the University and he will have to pay the readmission fee alongwith the fee and fine before he is readmitted. Application to this affect shall be submitted to the concerned Dean of Faculty. However a student who receives scholaship through the University Treasurer may pay his/her fee and charges without fine with in a week of receipt of the scholarship for the

corresponding period. He shall not claim any other relaxation in the rules governing for teaching, attendance and examinations.

c. If a student fails to get himself registered for a regular semester before the start of end semester examination, his name shall be deemed to have been struck off the University Rolls and he shall not be allowed to appear in any examination.

Part-III. ATTENDANCE EQUIREMENTS

No candidate shall be eligible to appear in an End Semester Examination unless the following conditions are fulfilled:

a. He has been on the rolls of the University during the semester for which the examination is being held, unless allowed by the regulations to take examination in order to repeat/improve a course.
b. He is not debarred from taking the examination under the University rules and regulations in-force for the time being.
c. He has attended a minimum of 75% of the total number of lectures delivered, the laboratory periods held, design and practical work done in a course during the Semester for which the examination is being held. The Dean of the concerned faculty may, for valid reasons, condone this deficiency upto 10% on the recommendations of the Chairman of the department in consultation with the course teacher concerned.
d. If a student does not fulfill the condition of attendance, he shall be awarded an F-grade in that course whether theory or practical and will have to re-register for that course in the summer semester if offered or in a regular semester (as an additional course) in which the course is being offered.
e. The course teacher concerned will prepare the attendance record separately for theory and practical courses and will display and forward the list of such candidates who do not fulfill the condition of attendance to the Controller of Examinations through the Chairman of the Department and the Dean of the concerned Faculty immediately after the completion of the teaching session. Such candidates shall not be allowed to appear in the end semester examination of that course.
f. At the end of each month, the teacher concerned shall send to Chairman of the Department, a statement giving the total number of lectures delivered and practicals conducted by him together with the number of lectures and practicals attended by each student.

Part-IV. CONDUCT OF EXAMINATION

1. Students Evaluation System

The performance of every student shall be continuously monitored and assessed throughout the semester. During the semester a student's performance shall be evaluated by taking quizzes, assignments, mid semester examination, laboratory reports, and project presentations etc. An end semester examination shall also be taken at the end of each semester covering the entire syllabus. Theory and practical parts of a subject will be treated as separate courses. It will be mandatory for the student to pass both the parts. Separate grades will be awarded and will be reflected on the Grade Sheet and Transcript of Awards.

The course teacher shall be responsible for the evaluation of work/performance of the students of his class and for the award of grades to them on the basis of such evaluation.

2. Grading Mechanism

Course grades shall be awarded to the students preferably based on their relative performance in the course with minimum student's strength more than ten (10). Grading shall be usually carried out on the basis of normal distribution curve using statistical methods with preferably B as the class average. Grades shall be indicated by letters. There shall be 4-letter grades i.e. A, B, C & D for individual courses with 9 performance levels e.g

Letter Grades	Performance Levels
2 As	A & A-
3 Bs	B+, B & B-
3 Cs	C+, C & C-
1 D	Simple D
F	Fail
I	Incomplete

The grade points assigned to letter grades shall be indicated as under:

Letter Grade	Grade Points
A	4.00
A-	3.70
B+	3.30
B	3.00
B-	2.70
C+	2.30
C	2.00
C-	1.70
D	1.00
F	0.00

The following guideline for the award of Letter Grades can be followed by the course teachers in case of absolute grading and project evaluation etc.

Marks (%age)	Letter Grade
90-100	A
85-89	A-
80-84	B+
75-79	B
70-74	B-
65-69	C+
60-64	C
55-59	C-
50-54	D
<50	F

3. Semester Grade Point Average (SGPA)

The semester grade point average (SGPA) shall be calculated by multiplying the grade points earned in a course with the number of credit hours of that course, taking the sum of such products for each course taken in that semester and finally dividing the result by the total number of credit hours attempted in that semester.

4. Cumulative Grade Point Average (CGPA)

The cumulative GPA (CGPA) shall be calculated similarly (as that for SGPA) for all the courses taken in all the semesters of the degree programme.

5. Evaluation Components

a. Sessional Awards:

(i) **Quizzes:** There shall be an appropriate number of quizzes (announced/unannounced) per course.

(ii) **Mid Semester Examiniation**
There shall be one mid semester examination of 1.5 to 2.0 hours duration for each theory part of a subject in a semester after eighth week of teaching in case of regular semester and after fourth week in case of optional semester. While for practical part, the mid semester examination wll be conducted during practical/lab hours.

(iii) Home Assignemts/Mini Project:
There shall be an appropriate number of Home Assignment and /or Mini Projects per course in a semester.

(iv) Laboratory Reports:
The students shall submit laboratory reports on each laboratory practical held for the subject having practical part which the course teacher will evaluate during the semester.

b. End-Semester Examination

There shall be separate End-Semester Examination for theory and practical part of a subject. The duration of Theory paper will be from 2.00 to 3.00 hours covering the entire course at the end of each semester. In case of practical part the oral/viva voce examination will be conducted jointly by the Course Teacher (i.e. Internal Examiner) and External/ Neutral Examiner. The examination shall be held in the last two weeks of each regular semester and last one week of summer semester.

6. Weightage of Evaluation Cmponents

The final grades shall depend on the marks obtained in each of the evaluation components listed above.

The weightage given to each component is as follows:

a. Theory Part

Evaluation Component	Weightage
Quizzes/Home Assign-ments/ Mini Projects	20%
Mid Semester Examination	30%
End Semester Examination	50%

b. Practical Part

Evaluation Component	Weightage
Quizzes/Home Assign-ments/ Mini Projects	50%
Mid Semester Examination	
Practicals / Sessional Work	
End Semester Examination	50%
Final Oral Examination	

7. Choice in Question Papers

There shall be no choice of questions in any of the evaluation components.

8. Absence from Examination

Absentees in any of the evaluation components shall be awarded zero marks whereas the absentee of end semester examination shall be awarded an F grade irrespective of sessional marks.

9. Maintenance and Display of Sessional Awards

The teacher concerned shall prepare four copies of the sessional awards. He shall retain onecopy with him: shall send one copy each to the Chairman of the Department concerned and the Controller of Examinations immediately after the completion of the teaching session. He shall also display a copy of the sessional awards on the Notice Board before the start of end semester examination.

10. Showing of Answer Scripts

The marked scripts of each examination component i.e. quizzes, assignments, lab reports, mid and end semester examination shall be shown to the students by the concerned teachers. In case, a student is not satisfied with his awards and /or clarification from the teacher concerned, he may make written complaint to the Chairman of the Department who will refer his case to the Departmental Semester Committee and the decision of the Committee shall be final.

11. Re-mid Examination

A student who fails to take his Mid semester examination due to some unavoidable circumstances (beyond his control) shall apply in writing to the Chairman for retaking mid semester examination before the End Semester Examination. The Chairman will refer his case to the Departmental Semester Committee for consideration and decision. The decision shall be communicated to the Controller of Examinations in writing.In case a student is allowed to retake Mid Semester Examination, the examination will be conducted by the concerned course teacher before the End Semester Examination on the payment of prescribed fee by the student.

12. Place, Conduct of Examination and Date Sheet

The Controller of Examinations shall issue the date sheet of theory papers for each mid and end semester examinations. Mid Semester examinations shall be held on consecutive days excluding holidays which means that no gap shall be allowed between the two papers. While the End Semester examination shall be held on alternate days. The date sheet for Practical/Viva Voce Examination will be issued by the Chairman of the concerned Department.

13. Paper Setting and Marking of Scripts for Mid and End Semester Examination (Theory Part)

The course teacher(s) shall be responsible to set the question paper covering the entire syllabus, mark the answer scripts and prepare the award lists.

a. The course teacher after setting the question paper shall get it photo copied by himself in accordance with the number of students and deliver it to the Centre Superintendent on the date of examination as per date sheet.

b. On receipt of Answer Scripts from the Centre Superintendent on the same day, the course teacher shall mark the scripts for each examination and prepare the award lists on the prescribed form. After the end semester examination, he shall send the award lists (hard and soft copies) along with the marked scripts and question papers of Mid and End Semester examinations to the Controller of Examinations through the Chairman of the concerned department after a departmental faculty meeting under sealed cover within the specified time limit.

c. The course teacher(s) shall be responsible to ensure that there is no discrepancy in the marks entered in the award lists, the marks entered on the cover page of the scripts and the marks awarded to the questions in the scripts. A fraction of half or more shall be counted as one mark and less than half ignored in grand total only.

d. The time limit for marking the scripts shall be ten (10) days.

e. A deduction of Rs. 50/- per day will be liable to be made from the remuneration of the examiners for delayed submission of results after the prescribed time limit.

14. Appointment of Examiners for Practical Part

The Internal and External/Neutral Examiners for a practical paper shall be appointed by the Vice Chancellor on the recommendations of the Board of Undergraduate Studies of the Departments which shall recommend internal examiner and a panel of External/ Neutral examiners to the Controller of Examinations. The practical and viva voce examination shall be conducted jointly by the Internal and External/Neutral Examiners in respective laboratory. The award list shall be submitted under sealed cover by the Internal Examiner to the Controller of Examinations, immediately after the examination. In case of disagreement in respect of the marks between the Internal and External/Neutral Examiners, the Chairman of the department shall act as an arbitrator whose decision shall be final.

In case the Chairman is himself an examiner, the Dean of his Faculty shall act as arbitrator.

15. Summer Internship

Every student shall be required to participate in a six - eight weeks practical training programme during the summer of their second or third year and submit a formal report to the Chairman of the Department. How ever at least four weeks internship will be mandatory for completion of four years BSc Engineering degree program as per PEC requirements.

16. Final Year Project

In the final year, students shall be required to do a project which is assigned four to six credit hours. A list of available projects shall be notified by the concerned department at the start of the academic year. Students shall be required to consult their faculty advisors for the selection of a project. Students shall be required to complete their projects and present their reports (in hard-bounded form) before the end semester examination of their eighth semester. A three members committee nominated by the Chairman of the Department including the project supervisor and approved by the Vice-Chancellor shall evaluate these projects at the end of eighth semester. The eighth semester project evaluation shall be held after the examination weeks and shall be followed by an open presentation

17. Final Award

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

18. Notification of Result

As soon as possible after the completion of the examination and submission of awards by the Academic Department the Controller of Examination shall notify the result after scrutiny from the Scrutineers.

19. Re-Checking of Answer Scripts

There shall be no re-evaluation of answer scripts of the end semester examination. However, a candidate shall be allowed to have his answer scripts rechecked by the

Controller of Examinations on payment of prescribed fee within fifteen days of the declaration of the result. The Dean of the Faculty concerned may condone the delay up to a maximum period of ten days on payment of double fee. The Controller of Examinations shall certify that:-

a) The script has not been changed.
b) No portion of the script has been left unmarked.
c) The marks awarded in the script have been correctly brought out on its cover.
d) The grand total on the cover of the script is correct.
e) The grand total on the cover of the script is correctly transferred to the award list.
f) The result has been correctly posted and notified

20. Academic Deficiencies

A student, who obtains one or more of the following in a semester result, shall be considered academically deficient:

i) One or more "F" grades in a semester.
ii) One or more "I" grades in a semester
iii) SGPA less than 1.00 at the end of 1st semester
iv) CGPA less than 2.00

(a) Academic Dismissal

A student who fails to obtain a minimum GPA of 1.0 at the end of 1st semester of a degree programme shall be placed on academic probation for the 2nd semester being academically deficient. In case, he fails to improve his CGPA to 1.0 at the end of 2nd semester, his name shall be removed from the Rolls of the University. Students dismissed on academic grounds shall, however, be furnished with an official transcript indicating the courses completed along with grades earned in registered courses.

(b) Re-admission

Re-admission in the first year, without going through the admission process, is granted to only those undergraduate students who have been dismissed on academic grounds but only for once. There is no second re-admission.

However the maximum duration of degree program shall remain the same which will be considered from the date of his first semester registration.

c) Relegation to Lower Semester

An academically deficient student can apply to the Chairmen of concerned department for Willing Relegation to lower semester to overcome his academic deficiencies. The Chairman will refer his case to the Departmental Semester Committee for appropriate decision which will be forwarded to the Controller of Examinations through the concerned Dean for Vice Chancellor's approval and subsequent notification. The Willing Relegation to lower semester can only be availed once during the entire degree programme subject to written consent of the parents / guardians. However the maximum duration of degree program shall remain the same which will be considered from the date of his first semester registration.

21. Incomplete (I) Grades

A student may request for the award of an 'I' (Incomplete) grade, if for some genuine reasons (beyond his control), he fails to appear in an end semester examination or final project. 'I' grade will not be awarded for any other deficiency in a course (e.g. shortage in attendance etc). For the award of an 'I' grade, the student will apply on a prescribed form "i.e. 'I' Grade Application Form" to the Chairman of the concerned department, who will refer the case to the Departmental Semester Committee for consideration. The Departmental Semester Committee will make its recommendations based on the genuineness of the case and on the basis of his performance in mid semester examination, lab work, home assignments, quizzes, class participation etc. In case the student is allowed an 'I' grade in a course by the Chairman of the Department on the recommendations of the Departmental Semester Committee, he would be allowed to take only End Semester Examination of that course on payment of prescribed fee. The 'I' grade must be completed before the commencement of the forthcoming End Semester Examination, failing which the 'I' grade will automatically be converted to 'F' Grade. "I" grade will not be awarded in Summer Semester.

22. Repeating Courses / Improving Grades

a) If a student obtains 'F' Grade in any course, he shall have to repeat that or an equivalent course (as determind by the chairman of the department in case of elective courses only). Similarly whenever a student obtains a grade "D", he can repeat that course to improve his grade. A student shall be allowed to repeat a maximum of six courses to improve the grades during the entire degree programme.

b) An academically deficient regular student will be allowed to repeat / improve maximum of two theory and two practical courses during a summer semester if offered as well as during a regular (Fall or Spring) semester whenever the teaching and examination schedule makes it possible for him to register himself for the courses, attend the classes and to take the Mid and End Semester Examinations. While the academically deficient casual student shall be allowed to repeat/ improve the courses if offered either during summer semester or whenever the teaching and examination schedule makes it possible for him to register himself for the courses, attend the classes and to take the Mid and End Semester Examinations.

Casual students can register for a maximum of Two Theory and Two Practical Courses in a Summer Semester and Five (05) Theory Courses and Five (05) Practical Courses in a Post Eighth Regular Semester. In case of repetition / improvement of a course the student shall have to pay course registration and examination fee as prescribed by the University.

c) As soon as a student is registered for a course, his previous grade for that course whether low or high shall be cancelled, and only the latest grade earned by the student shall considered for the computation of CGPA. It shall be noted that a student can only improve a grade D and F.

d) In case a student repeats a course which has already been taken, and in case a student takes a new course in lieu of the elective course in which he failed, both the courses alongwith grades will be reflected on his transcript.

23. Freezing of Semester

Students will be allowed to freeze a semester only once during the entire degree programme owing to some extreme and genuine reason to be determined by the Departmental Semester Committee. Students shall not be allowed to freeze their First and Second Semester(s), in any circumstances. Only those students who have completed their First Academic Year at the University shall be eligible to avail this facility. A student must apply to the Chairman of the Department, in writing, for freezing of one or two consecutive semesters within fifteen days of commencement of the semester. Students can request for freezing of at most two (02) consecutive semesters with Summer Semester not being counted. The Dean of concerned faculty will approve the request on the recommendation of the Departmental Semester Committee and Controller of Examinations shall notify the Freezing of Semester(s) accordingly.

In case of freezing two consecutive semesters the student on his return will be registered in the same semester with next junior class and his courses shall be evaluated by the concerned Chairman of the department to determine their relevance to the changes made in the curriculum (if any). In such a case, the student shall be required to modify the degree plan in order to ensure conformity to the recent curriculum. Also, students will be required to pay the difference of University fee (if any) besides the re-registration fee.

In case of freezing one semester, the student may re-join his own class. The deficiency created by frozen semester shall be made up after completing the remaining courses with his class i.e. after eighth semester by enrolling as a Casual Student. However, the students allowed to freeze their semester for proceeding abroad under Educational Exchange Programs, will be elegible to register themselves for deficient courses in forthcoming Summer and / or Regular Semesters to overcome their academic deficiencies, provided the requirements for registration in Summer and/or in Regular Semesters (as additional courses) are fulfilled as prescribed in the prevailing regulations. The maximum duration of the degree programme shall remain the same which will be counted from the date of his first semester registration including the frozen semesters.

24. Withholding of Comprehensive Result

The comprehensive result of a candidate, who is allowed to appear in the final semester examination while carrying courses of the lower semesters, shall not be declared till he clears the courses of lower semesters as a Casual Student. His Comprehensive result will be declared with the session in which he clears his last course of the degree programme. After the declaration of Final Semester Result, the students with status " Passed " shall be required to submit the " **DEGREE REQUIREMENTS COMPLETION FORM** " complete in all respects within four days of the notification. Failing which Comprehensive Result Notification will be issued and the students will have no claim to improve their grades afterwards. Also, the students with status "Passed" and interested in improving their grades (D grade) and the students with status "Failed" shall be required to submit the "CASUAL STUDENT ENROLLMENT FORM" complete in all respects, for registration as Casual Students.

25. Transfer of Credits

Transfer of credits shall be applicable only for those students who have been migrated to this University. Credits for only those courses shall be transferred which fulfill the following criteria:

- Credits can only be transferred from a PEC (Pakistan Engineering Council) accredited programme in case of Engineering disciplines and from other concerned accredited bodies in case of non engineering disciplines.
- A course with similar title, standard, duration, credit hours and matching course description is available in the relevant academic programme of the University. The course equates in description and laboratories work (if any) with the similar course of the relevant academic programme of the University. The duration of the course must be same or more than the duration of the course in the programme of the University.
- The candidate should have secured at least "B" grade in that course as per the grading system of the University.
- A maximum of 50% of the total credit hours of the relevant academic programme of the University shall be allowed for transfer.
- Transfer fee as prescribed by the University, shall be paid by the candidate.
- Transfer of credits is considered on the basis of course contents and credit hours to be decided by the Departmental Semester Committee of the concerned department.
- Transferred credits shall not be included in CGPA calculation however, will be reflected on the transcript as Transferred Credits.

26. Award of Degree

A candidate shall be admitted to the degree if:

a) He has earned total credit hours required for the degree within the prescribed duration of the degree programme.

b) He has obtained pass grades in all the

courses offered in a semester.

c) He has passed all the semesters in the relevant discipline with at least 2.00 CGPA at the scale of 4.00 upto completion of a degree programme.

d) He has submitted the Degree Requirements Completion Form.

e) In case of the degree in Civil Engineering he has attended and satisfactorily completed annual survey camp organized by the University as certified by the Chairman of the Department.

27. Award of Honours

A candidate shall be declared to have obtained the degree with Honours and the fact shall be recorded on the provisional certificate as well as on the degree, provided that:

a) He has obtained CGPA of 3.7 or more.

b) He has completed the degree programme within the minimum duration as specified in the regulations.

c) He has not obtained 'F' grade in any course during the entire degree programme.

d) He has not improved any grade in the entire degree Programme.

e) He has not transferred any credit from other institutions.

f. He has not availed the facility of freezing of semester(s) during the entire degree programme.

28. Award of Medals

A candidate who fulfills all the requirements for the award of degree with Honours shall be entitled to the award of a medal for best performance on the basis of combined eight semester examinations result in each discipline as detailed below:

1. **University Gold Medal**
   For obtaining 1st Position in a degree programme
2. **University Silver Medal**
   For obtaining 2nd Position in a degree programme
3. **University Bronze Medal**
   For obtaining 3rd Position in a degree programme
4. **Donor Gold Medals**
   For obtaining 1st postion in a degree programme and as per requirements of the Donors.
5. **University Gold Medal for Best Researcher**
   A Gold Medel to best researcher amongst the undergraduate students of the University will be awarded with the below mentioned terms and conditions.

i. The Candidate who fulfills all the requirements for the award of degree with Honors.

ii. The candidate who successfully publishes a research paper in ISI indexed Impact Factor research publication.

iii. The Candidate whose nomination is made by the Research Evaluation Committee constituted for this purpose by the worthy Vice Chancellor.

29. Semester Grade Sheet

Obtaining of Semester Grade Sheets (SGS) at the end of each semester shall be mandatory for all students. Prescribed Fee will be charged at the start of each semester with semester registration fee and SGS will be issued to the students within ten days of their respective result notification. The SGS shall indicate Courses alongwith Letter Grades, Grade Points, SGPA, and CGPA.

30. Transcript of Awards

A Transcript of Awards shall be issued to each student after completion of the degree programme subject to the payment of prescribed fee and clearance certificate. However on the request of the student, an incomplete Transcript of Awards can be issued on the payment of prescribed fee.

31. Provisional Certificate

A candidate who fulfills all the requirements for the degree shall be issued a provisional certificate on the payment of prescribed fee alongwith the clearance certificate before the issuance of the degree. This provisional certificate will not itself confer any right or privilege for admission to the degree.

32. University Degree

The degree shall normally be issued to the graduates at the time of University Convocation without any fee. However, a graduate after obtaining the provisional certificate can apply for issuance of the degree before convocation on payment of the prescribed fee. The graduates who receive the degree in absentia after the convocation shall also be required to pay the prescribed fee.

33. Issuance of Certificates / Degrees

Subject to fulfillment of requirements and submission of application on prescribed forms with fee:

- Degree will normally be issued within two months of the receipt of the application.
- Any other certificate or duplicate copy (other than degree) will be issued within six days of receipt of application.

Note: A candidate shall deposit double the prescribed fee if he requires a certificate or duplicate copy (other than degree) within 24 hours.

34. Certificate Fees

The rates of fee for various certificates shall be as under:

a)	Semester Grade Sheet	Rs. 200
b)	Transcript of Awards	Rs. 1500
c)	Provisional Certificate	Rs. 1000
d)	Degree in Absentia/Degree Before Convocation	Rs. 2000
e)	Any other Certificate	Rs. 250
f)	Duplicate Certificate/ Degree	Double of the normal fee
g)	Verification fee of University Degree/Certificates:	
	Degree/ Transcript of Awards	Rs. 500 each
	S.G. Sheet/ Provisional Certificate/ Any other Certificate etc.	Rs. 250 each

35. Other Fees

a)	Semester Examination Fee	Rs. 1000/- per semester
b)	Summer Semester Registration Fee	Rs. 2000/- per credit hour
*c)	Registration Fee for Improvement of a Course during Regular Semester	Rs. 2000/- per credit hour
d)	Post Eight Semester Registration Fee	Rs. 2000/- per credit hour
e)	Fee for 'I' Grade / Mid Semester Retake Examination	Rs. 1000/- per course
f)	Rechecking of Answer Script Fee	Rs. 500 per script

***C :** *In case a semester contains less than 21 credit hours and a student who is fail in the course or intends to enhance his CGPA shall be allowed in the same fee to take the course (s) ,if the credit hours do not exceed 21 credit hours. A student having 3.5 or above CGPA wants to take additional course(s) of his own discipline or any other discipline shall be extended an opportunity to fulfill the desire in the same semester fee if the credit hours donot exceed 21 credit hours.*

Note: *The rate of fee may be revised by the University Authorities from time to time and will be applicable to the currently enrolled students of provious entries also. Fee will not be refundable in any case.*

36. Disposal of Marked Answer Scripts

The marked answer scripts of a particular mid and end semester examinations shall be retained in the office of the Controller of Examinations for a period of one Year. After this period, the scripts shall be disposed off accordingly.

37. Departmental Semester Committee

a) **Constitution of the Committee**

Each Department shall have a Departmental Semester Committee constituted by the Vice Chancellor comprising the following:-

i) Chairman of the Department
ii) Two/ three senior most faculty members
iii) The teacher concerned may be co-opted in case of complaint of the students.

b) **Functions of the Committee**

- Ensure content coverage of courses by comparing test with the course outlines and work plan provided by the teacher.
- Monitor classroom activities as reflected in the course outlines.
- Examine all problems regarding uniformity before the declaration of results.
- Address and decide student's com plaints/appeals regarding sessional / grade awards.
- Examine & approve students requests for Award of 'I' Grade, and Retake of Mid Semester Examination.
- Examine & approve students requests for freezing of semester and Willing Relegation to Lower Semesters only for the purpose of over coming their Academic Deficiencies.
- Examine & approve Transferred Courses and corresponding credits for Migration Cases.

38. University Semester Committee

a. **Constitution of the Committee**

There shall be a semester implementation committee to be constituted by the Vice-Chancellor. The Committee shall consist of the following:

i) The Deans of all Faculties.
ii) The Director Quality Enhancement.
iii) The Director, Academics
iv) The Controller of Examinations.
v) The Deputy / Assistant Controller of Examinations (Secretary)

b. **Functions of the Committee**

i) Provide consultation to the Academic Departments converting to the semester system from the term system.
ii) Provide support in the implementation of semester system by arranging short courses for the faculty on its various aspects.
iii) Monitor the implementation of semester system.

iv) Address various issues arising with relation to the implementation of the semester system.
v) Recommend necessary amendments in the semester regulations, if needed.
vi) Examine and Approve students requests for Re-admission.

MIGRATION 22

22.1 Subject to the provisions of Regulations, the Vice-Chancellor may admit a student to the University by migration from other universities or institutions accredited by the Pakistan Engineering Council.

22.2 No student shall be admitted to first year and final year classes by migration.

22.3 No student other than regular student shall be allowed admission by migration.

22.4 Admission by migration shall not be allowed ordinarily after the expiry of three weeks from the commencement of the session.

22.5 No student shall be admitted by migration unless he produces a "No Objection Certificate" and good moral character certificate to the effect that:

a. He has obtained not less than 2.8 GPA or equivalent in the examination on the basis of which migration is requested.

b. He has neither been debarred from taking University examinations nor suspended nor expelled nor rusticated, for whatsoever reason, from the University or institution from which he intends to migrate.

c. No disciplinary action is pending against him.

22.6 a. The application shall be accompanied by a detailed marks certificate showing the examination passed by the student including Intermediate (Pre-Engg)/BSc Examination on the basis of which he secured admission in the parent university or institution.

b. No student admitted to any university or institution against seats reserved for special categories shall be eligible for admission by migration.

c. Only those students, who have academic merit at par with the students admitted in this University on open merit in the respective classes, shall be considered for admission by migration.

d. No student shall be migrated to the University who carries any of his papers of previous years.

e. No migration shall be allowed to and from the constituent/affiliated institutions.

f. Subject to eligibility under the regulations, 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.

g. Migration application will be entertained only on the prescribed application form, obtainable from the Student Section, at the cost of Rs.500/-.

h. A migration fee Rs 25,000/- (Twenty five thousand only) per year to be studied will be charged at this university.

22.7 A student desiring to leave this University in order to join another university or institution shall apply to the Dean of the Faculty concerned on the prescribed form.

22.8 The student will be required to clear all the university dues before he applies for migration.

22.9 In case of a student who has been debarred from taking University examination or has been expelled or rusticated, for whatsoever reason, No Objection Certificate shall not be issued so far as the punishment is in force.

22.10 The Registrar shall issue No Objection Certificate, which shall be valid only for sixty days.

22.11 A student who has obtained No Objection Certificate from this University, but has not secured admission in another institution, may be re-admitted to the University in the class to which he can be admitted under the regulations provided that:

a. His absence from the current teaching session of that class does not exceed four weeks, and that

b. He surrenders the No Objection Certificate.

22.12 Any changes/ additions/ modifications, if made in the above regulations, will also be applicable.

STUDENTS DISCIPLINE RULES 23

a. These rules shall be called the "University of Engineering and Technology, Taxila (Students General Discipline) Rules, 1998".

b. These Rules are in effect from 1998.

c. Unless otherwise explained in the context or explicitly expressed, the following terms shall mean as defined in each case:

(1) "Academic Department" means an academic department of the University.

(2) "Committee" means the Students Discipline Committee of the Uniersity constituted by these rules.

(3) "Country" means Pakistan in case of native students and in case of foreign students this term refers to the native country of such foreign students.

(4) "Examination Hall" means a place declared as examination hall or as such.

(5) "Hall of residence" means the hostel of the University or such place as may be declared as

residence hall for students.

(6) "Student" means a bonafide student of the University, both native and foreign, in accordance with the respective rules.

(7) "University" means the University of Engineering and Technology, Taxila

(8) "Vice-Chancellor" and other officers /authorities mean the Vice-Chancellor and other officers / authorities of the University.

Note: The general pronoun "he" and its derivatives shall mean either of the sex, unless otherwise explicitly expressed.

d. Every student must observe the following code of honour:

(1) He must be faithful in his religious duties and respect the conviction of others in matters of religion and custom.

(2) He must be loyal to his country and refrain from doing things, which might lower its honour and prestige.

(3) He must be truthful and honest in his dealings with all people.

(4) He must respect the elders and be polite to all especially to women, children, old people, the weak and the helpless.

(5) He must respect his teachers and others in authority in the University.

(6) He must keep clean in body and mind, standing for clean speech, clean sport and clean 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.

e. No student shall :–

(1) Smoke in his classroom, laboratory, workshop, library, examination hall or convocation hall and during studio work or academic functions.

(2) Consume alcoholic liquor or other intoxicating drugs within the University campus or hall of residence or examination hall or during the instructional, sports or cultural tours or survey-camp; or enter any such place or attend any such tour or camp, while under the influence of such intoxication.

(3) Organize or take part in any function within the University campus or a hall of residence or organize any club or society of students except in accordance with the prescribed rules and regulations.

(4) 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 or any officer authorized by the Vice-Chancellor;

(5) Stage, incite, participate in or indulge in any walkout, strike or other form of agitation against the University or its teachers or officers.

(6) Interfere in the official proceedings of the examination or other University business.

(7) Threat or misbehave with the officers or other employees of the University or try to influence such officers or employees in any way in connection with their official assignments.

(8) Instigate or take part in any boycott of examination or create disturbance in or, around the examination hall.

f. 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 or the University. Should such misconduct occur in room when the student is under the charge of an instructor/supervisor, the latter shall report the matter, without delay, to the Chairman of the Department.

g. The Librarian shall be responsible for maintenance of order of the library. In case of disorderly conduct or any breach of rule he may require the student so offending to withdraw from the library for the remainder of the day and shall immediately report the offense to the Chairman, Library Committee.

h. The Senior Warden/Warden and the Resident Tutor shall be responsible for the maintenance of order among the students in hall of residence or hostels. The Director, Physical Education shall be responsible for the maintenance of order among the students on or near the playground or while otherwise under his charge.

i. (1) There shall be a Students Discipline Committee, to deal with the serious cases of in-discipline, consisting of the following :–

(a) Chairman, to be nominated by the Vice-Chancellor.
(b) One member to be nominated by the Syndicate
(c) One Member to be nominated by the Academic Council.
(d) Two members not below the rank of Associate Professor, to be nominated by the Academic Council.
(e) The Senior Warden, (Ex-Officio Member).
(f) The Director Students Affairs, (Ex-Officio Member/Secretary)

(2) The term of office of the members other than ex-officio members shall be two years.

(3) The quorum for a meeting of the Committee shall be four.

j. The functions of the Committee shall be :–

(1) To propose regulations to the Academic Council, and other authorities, for the conduct of the University students.
(2) To maintain discipline and to guard against the breach of discipline.
(3) To perform such other functions as may be prescribed.

k. A student shall be guilty of an act of in-discipline and shall be liable for each act to one or more of the penalties mentioned in Rule 23l(2), if he :–

(1) Commits a breach of any of the rules of conduct specified in Rule 23e; **or**
(2) Disobeys the lawful order of a teacher or other persons in authority in the University; **or**
(3) Habitually neglects his work or habitually absents himself from his class without reasonable cause; **or**
(4) Willfully damages University property or the property of a fellow student or any teacher or any employee of the University; **or**
(5) Does not pay the fees, fines or other dues leviable under the University Act, Statutes, Rules, Regulations or Instructions; **or**
(6) Does not comply with the rules relating to residences in the hostels or hall of residence or the Rules relating to the University Dress Code; **or**
(7) Uses indecent language, wears immoderate dress, makes indecent remarks or gestures or behaves in a disorderly manner; **or**
(8) Commits any criminal, immoral or dishonorable act (whether committed within the University campus or otherwise) which is prejudicial to the interests of the University; **or**
(9) Humiliates, or causes to humiliate, his fellow student or a teacher or officer or other employees of the University; **or**
(10) Possesses, carries or uses any type of weapons/fire arms or explosive material within the University premises; **or**
(11) Spreads by word, mouth or written material, religious, sectarian, ethnic, regional or linguistic conflicts/hatred; **or**
(12) Uses or takes possession of the University ransport unauthrosidely; **or**
(13) Shows immodest/indecent or contra-Islamic behavior with fellow boy/girl student; **or**

l. (1) The penalty or penalties imposed shall be appropriate and proportioned to the nature and gravity of the act.

(2) The penalties which may be imposed and the authority or authorities competent to impose each kind of penalty are specified in the table given below:

Sr. No.	Penalty	Authority Competent to impose the penalty
(a)	Exclusion from classroom 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.	In charge of the game
(c)	Exclusion from instructional or sports tour or survey camp.	Teacher In charge or Tour In charge/ Chairman
(d)	Exclusion from the Department for a period not more than one year.	Heads of Department/ Chairman
(e)	Exclusion from the Library for not more than two weeks.	The Chairman Library Committee
(f)	Exclusion from all classes or any class in any Faculty for a period not exceeding one year.	Dean of the Faculty
(g)	Exclusion from the Hall of residence for a period not exceeding six months.	Resident Tutor, Warden, Senior Warden
(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, if any	Director, Students Affairs
(k)	Suspension or removal from a position of authority in the University Sports	The Chairman, Sports Committee
(l)	Cancellation or removal from a position of authority in the University Sports	The Chairman, Sports Committee
(m)	Fine up to Rs. 2000/-	Teaching Research Associate/Lecturer, Resident Tutor
(n)	Fine up to Rs. 5000/-	Assistant Professor, Warden
(o)	Fine up to Rs. 10000/-	Associate Professor
(p)	Fine up to Rs. 20000/-	Chairman of a teaching department, Professor, Senior Warden, Director Students Affairs, Chairman Transport Committee
(q)	Fine without any limit	Dean of the Faculty
(r)	Rustication from the University:	Chairman of the Deptt.
	i) for a period not exceeding one year	
(s)	ii) for any period	Discipline Committee, Dean of the Faculty
(t)	Expulsion from the University	Discipline Committee
(u)	Withholding of result/s, certificate of good moral character etc.	Dean of Faculty, Chairman of Deptt. Discipline Committee

Note: The terms "Teaching Research Associate/Lecturer", "Assistant Professor", "Associate Professor" and "Professor" include non-teaching officers, in relation to these rules, holding the posts of corresponding pay scales.

m. (1) When a case against a student is referred to the Committee, the Committee may, if it deems 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) Notwithstanding any thing contained in rule 23m(1), the Vice-Chancellor shall have the powers to impose any of the penalties mentioned in rule 23l(2) or to refer the case to the Committee.

(3) A teacher or officer mentioned in these rules in whose presence or in relation to whom an act of in-discipline 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 severer than that which he is competent to impose is called for in the case; 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 to the appropriate authority.

ii. If he is the Dean of the Faculty, he shall refer the case to the Vice-Chancellor or the Committee.

(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 the penalty of rustication or expulsion is not called for in a case referred to it, it may impose any other penalty or penalties mentioned in the Rule 23l(2).

n. When a teacher or officer has imposed penalty/penalties on a student under sub rule l(2) of rule 23, the latter shall not be liable to a higher or an additional penalty unless the he has been given a reasonable opportunity of showing cause against the proposed action.

o. (1) A review petition against the imposition of penalty may be made within a week's time to the officer who imposed the penalty. *In case the student is not satisfied with his decision/ revision he may appeal to theChairman, Discipline Committee who shall place it before the Committee for its consideration and decision within a maximum of six weeks to dispose off the case. A final appeal against the imposition of penalty may then be made to the Committee as provided in Rule 23o(2) of these Rules.*

(2) An appeal against a decision on imposing a penalty mentioned in Sr. No.(r) and (s) of the table under rule 23l (2) shall lie with a committee comprising as mentioned below:

(a) The Vice-Chancellor
(b) All Deans of Faculties
(c) One member to be nominated by the Syndicate.
(d) The Registrar shall be the Secretary of the Committee.

(3) No appeal shall lie against a decision of an authority imposing a penalty other than that mentioned in Rule 23 o(1) of these rules except on the ground that such authority has imposed a penalty which it was not competent to impose.

(4) 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.

(5) No appeal by a student under sub rule (1) or sub rule (4) of this rule 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 reasons, extend this period up to thirty days.

p. 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, or damage to property belonging to the University or to a 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 time to be specified, the Vice-Chancellor may expel him from the University and loss/damage/compensation be recovered from his parents / guardians through legal proceedings.

q. Code of honour for Bus Routes:

(1) An individual traveling in the bus must respect the elders and be polite to all especially female students, women, children, old people, the weak and the helpless.

(2) All the students must respect the teachers and others in authority in the university.

(3) Cassette Player, singing songs, use of vulgar language, card playing, fooling, passing remarks using nick names and smoking, playing music on the mobiles, are prohibited.

(4) Hanging with door of buses is prohibited.

(5) Forcing driver/cleaner for undue delay, stoppage, changing route is prohibited.

(6) All individuals traveling in the bus must cooperate with the driver/ cleaner.

(7) For complaints / suggestions contact Chairman Transport/ DSA.

r. Policy to deal discipline cases in the bus routes:

(1) Any eventuality occurring in the bus routes will be immediately reported by the concerned driver/ cleaner to the chairman transport through transport officer/office in writing. Failing to do so action will be taken against them as per E&D rules of the university.

(2) Keeping in view the gravity of the problem the Chairman Transport will serve first and second notice to deal the indiscipline during the bus routes. In acute circumstances the discipline committee empowers the following committee to deal the indiscipline problems in bus routes:

(a) Chairman Discipline Committee
(b) Director Student Affairs
(c) Chairman Transport Committee

UNIVERSITY HOSTELS 24

24.1 Limited hostel accommodation is available at campus for male and female students. The rooms in the hostels are allotted on the basis of academic merit. However, a casual student or a student involved in any act of misconduct, indiscipline, violation of rules or involvement in any political and bjectionable activities, shall be ineligible for hostel accommodation. If the attendance of a student is short, his hostel allotment shall be cancelled. He may apply for fresh allotment after the next semester if his attendance is up to the mark at that time.

24.2 A student shall not occupy a room without due allotment. He shall not transfer it to any other person, nor exchange it with another student without permission of the Senior Warden.

24.3 The furniture assigned to a room shall not be shifted from it. A resident shall be responsible for the articles issued to him and shall return them to the hostel authorities when leaving the room or hostel. He shall be responsible for making good, any loss or damage to these articles.

24.4 A resident who breaks or damages any University property shall have to pay the cost of the articles, in addition to any disciplinary action that may be taken against him.

24.5 The residents shall not tamper with the room fittings, nor shall they get the doors fitted with internal locks.

24.6 A room or any part of the hostel premises shall not be used **as an office, reading room, library or for any other similar purpose by a political, religious, regional or sectarian body of the students.**

24.7 The residents shall not leave lights, heaters or fans ON when the rooms are not in use.

24.8 The residents shall not use heaters and air coolers without payment of approved charges and prior permission of the Senior Warden. The use of room heater is restricted to 1000 W. Moreover, the use of electric heaters and air coolers is strictly phrohibited during generator (loadshedding) hours. In case of violation, the appliance/device shall be confiscated.

24.9 The residents are not allowed to use airconditioners, refrigerators, ovens or similar electrical appliances. A student who violates this restriction will be liable to punishment under rules of discipline, and shall also pay the cost of any damages to the wiring or other fittings, which will be determined by the Senior Warden.

24.10 The residents are advised in their own interest, not to keep in their rooms cash or valuable articles like radios, transistors, tape-recorders, TV sets, mobile phones , laptops etc.

24.11 The residents shall be responsible for keeping their rooms tidy and clean. They shall not dispose off litter in the verandahs or other parts of the hostel premises.

Smoking is strictly prohibited in the hostel premises.

24.12 Every part of the hostel shall be opened to the hostel authorities for inspection at any time during day or night.

24.13 The residents are not allowed to wear immodest dress in the hostel.

24.14 The residents shall not keep in the hostel any fire arms or other weapons, even if licensed. Violation of this rule shall render a resident liable to expulsion from the University.

24.15 A resident shall not indulge in any amusement, which is likely to cause nuisance to others. Loud speakers, woofers and other instruments causing disturbance to other resident students are not allowed in the hostel premises.In case of violation, the appliance/device shall be confiscated.

24.16 Any religious ceremony likely to injure the sentiments of other residents shall not be performed in the hostel.

24.17 The residents are not allowed to gamble or to use any intoxicants and narcotics. Violation of this restriction shall render a resident liable to expulsion from the University hostel, in addition to any criminal proceedings that may be instituted against him under the Penal Law of Pakistan.

24.18 The resident students shall not be allowed to accommodate any body else with them. In case an unauthorized person or a non student is found residing in any room of the hostel, strict disciplinary action shall be taken against the resident students concerned which may result into immediate expulsion from the hostel.

24.19 Wall chalking, displaying of un-approved posters, pasting of unauthorized notices etc in the hostels as well as in the university premises is strictly prohibited. The students involved in such activities shall be punished in accordance with the University Discipline Rules.

24.20 The students are not allowed to form and/or join any unauthorized society, association or group etc in the hostels as well as in the university on regional, political and sectarian basis. The students showing affiliation with such associations will be dealt in accordance with the University Students Discipline Rules. Unauthorized gathering, arrangement of parties and tours etc and collection of donations by the students is also strictly prohibited in the hostels as well as in the university premises.

24.21 Guests may visit the male residents in the hostel between 9.00 a.m. to 7.00 p.m. The male residents shall not receive female guests in their rooms, but may see them in the place reserved for the purpose. The guests approved by the Senior Warden may visit the female residents in Girls Hostel between 4.00 p.m. to 7.00 p.m. only. The female residents can receive the guests in Guest Room only.

24.22 Guests are not allowed to stay overnight unless it is permitted by the hostel authorities and accommodation is available in the guest rooms.

24.23 The gates of the female hostel shall remain locked for the following hours:-

Summer:

2200 hours to 0500 hours (April to September)

Winter:

2100 hours to 0600 hours (October to March)

24.24 The female residents shall not meet their male guests in or around the hostel premises. A female resident shall not leave the Campus without the written permission of the Hostel Authorities.

24.25 Students will have to vacate the hostel accommodation within a week of the expiry of the final semester regular examination.

24.26 The Senior Warden may cancel the allotment of a student who violates the Students Discipline Rules of the University.

24.27 The resident students must respect every one specially the elders and the hostel staff. If he/she humiliates or causes to humiliate any one, strict disciplinary action shall be taken against him/her besides cancelltion of hostal allotment.

ALLOTMENT OF ROOMS IN HOSTELS 25

25.1 A student seeking accommodation in a University Hostel shall submit an application to the Senior Warden on the prescribed form. Allotment will be made by the Resident Tutors under the supervision of the Senior Warden. As far as possible international students shall be provided hostel accommodation.

25.2 Students residing within the limits of Taxila, Wah Cantt., Rawalpindi and Islamabad shall not be provided hostel accommodation, unless vacancies are available after accommodating students from outside the above limits.

25.3 The types of accommodation presently available in the hostels are;

(a) Cubicle

(b) Dormitory

25.4 The order of preference for allotment of the accommodation shall be as follows:

a. Final year students
b. Third year students
c. Second year students.
d. First year students

25.5 Within each of the categories mentioned in sub-rule 25.4 except category d, the order of preference shall be as follows:-

a. Students who have passed the next below regular semester examination, taken as a whole
b. Students who have failed in not more than three of the papers of the next below regular semester examination
c. Others

25.6 **Confinements:**

a. Hostel accommodation is not a right but facility provided by the University. It is solely the prerogative of the University to offer a place in the hostel.
b. A student, who fails to fulfill the degree requirements within the minimum prescribed time duration, shall not be allowed to reside in the university hostels.

UNIVERSITY DRESS CODE 26

The students shall wear dress that ensures modesty, sobriety and dignity. The dress must neither be offensive to social norms and ethical values of the society nor injurious to feminine grace and gentleness. Female students shall, preferably, wear a scarf and an overall sufficient to conceal their posture.

MISCELLANEOUS 27

27.1 **Liability for Injury Damage and Loss:** The University teaching programs include training in its workshops and laboratories, places of engineering 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.

27.2 **Modification of Rules and Regulations:** The rules and regulations governing various aspects of students' life at the University (such as discipline, admissions, examination, migrations, fees and charges etc.) are given in this prospectus or elsewhere 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.

ADMISSION PROCEDURES

GENERAL INSTRUCTIONS 28

28.1 The application along with the required documents should be submitted as early as possible. Please do not wait for the last date.

28.2 As soon as the process of selection is complete, the merit list will be notified showing the percentage of the applicants admitted in different disciplines against different categories.

28.3 All documents to be attached with the Application Form (F-I) should be attested by a class-I gazetted officer of the government or a class-A officer of this University.

28.4 Any information regarding admissions can be obtained during working hours by calling Phone No: (051)9047412.
Members of the Admission Committee will also be available for consultation, in person, during admission period.

ELIGIBILITY FOR ADMISSION 29

29.1 Eligibility Requirements

a. An applicant for admission to any of Bachelor degree course offered by the University must fulfill the following requirements:

1. He should have passed the Intermediate (Pre-Engg) Examination with Mathematics, Physics and Chemistry from Board of Intermediate and Secondary Education of Pakistan or an equivalent examination so recognized by the University.
2. Intermediate or an equivalent with Physics, Mathematics and Computer Science shall be acceptable only for Computer, Software, Telecom Engineering and Computer Science.
3. Intermediate or an equivalent with Physics, Mathematics and Statistics shall be acceptable only for Computer Science.
4. He should have passed the examination (up to the latest annual examination) on the basis of which he seeks admission.
5. He should have obtained at least 60% unadjusted marks in examination on the basis of which he seeks admission. Marks of NCC and Hifz-e-Quran, where applicable, shall be added only for determination of merit and not towards eligibility. Rounding off percentage figure to make it 60% will not be considered towards eligiblity.
6. He should be a bonafide resident of the area from where he seeks admission.
7. He should meet standards of physique and eyesight laid down in the medical certificate.
8. He should have appeared in the Entry Test for the respective session arranged by the University with the following combinations:
(English, Mathematics, Physics, Chemistry / Computer Science/Statistics.)

b. **Equivalent Examination:**
The university recognizes the following examinations as equivalent to the Intermediate (Pre-Engg) Examination with Chemistry, Mathematics and Physics of the Pakistan Boards of Intermediate and Secondary Education:

1) Intermediate (Pre-engineering Examination of the Board of Intermediate and Secondary Education, Azad, Kashmir.
2) F.Sc. (Pre-medical) with Mathematics as an additional subject.
3)* Cambridge Overseas Higher School Certificate of Education (Advanced Level) with Physics, Chemistry and Mathematics.
4) British General Certificate of Education (Advanced Level) with Physics, Chemistry and Mathematics.
5) American High School Graduate Diploma (HSG Diploma).
6) Any foreign equivalent certificate or diploma accepted by IBCC (Inter Board Chairmen Committee).

Note:* Applicants (Sr. No. 3 to 6) are required to attach an equivalence certificate (Pre-Engineering) issued by the IBCC, with the application for admission.
The following is the address of the IBCC:
Inter Board Committee of Chairmen, Plot No. 25, Street No. 39, G-10/4, Islamabad, Pakistan.

29.2 **Eligibility for Diploma Holders**

a) For admission against seats reserved for holders of the Diploma of Associate Engineer, he should have passed the diploma examination from the **Punjab Board of Technical Education, Lahore** in the relevant technology, obtaining at least 60% unadjusted marks. Rounding off percentage figure to make it 60% will not be considered towards eligiblity.

b) 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:

Electrical Engineering

- Diploma in Electrical Technology
- Diploma in Electronics Technology
- Diploma in Instrumentation Technology
- Diploma in Telecommunication Technology
- Diploma in Avionics Technology
- Diploma in Information Technology
- Diploma in Precision Mechanical & Instruments Technology
- Diploma in Radar Technology

- Diploma in Automation Technology
- Diploma in Radio Technology
- Diploma in Instrumentation and Process control Technology

Electronics Engineering
- Diploma in Electrical Technology
- Diploma in Electronics Technology
- Diploma in Instrumentation Technology
- Diploma in Instrumentation and Process Control
- Diploma in Bio-Medical Technology
- Diploma in Avionics Technology
- Diploma in Telecommunication Technology
- Diploma in Radar Technology
- Diploma in Automation Technology
- Diploma in Radio Technology

Mechanical Engineering
- Diploma in Mechanical Technology
- Diploma in Refrigeration and Air-conditioning Technology
- Diploma in Mechanical (Power) Technology
- Diploma in Mechanical (Production) Technology
- Diploma in Precision Mechanical & Instruments Technology
- Diploma in Auto and Diesel Technology
- Diploma in Dies and Mould Technology
- Diploma in Automation Technology
- Diploma in Bio-Medical Technology
- Diploma in Mechanical (Contruction Machinery) Technology

Industrial Engineering
- Diploma in Industrial Technology
- Diploma in Mechanical Technology
- Diploma in Cast Metal and Foundry Technology
- Diploma in Mechanical (Production) Technology
- Diploma in Auto and Diesel Technology
- Diploma in Mechanical (Contruction Machinery) Technology
- Diploma in Automation Technology

Civil Engineering
- Diploma in Civil Technology
- Diploma in Land & Mine Surveying Technology
- Diploma in Architecture Technology

Mechatronics Engineering
- Diploma in Mechatronics Technology
- Diploma in Automation Technology
- Diploma in Instruments Technology
- Diploma in Electrical Technology
- Diploma in Electronics Technology
- Diploma in Mechanical Technology
- Diploma in Radar Technology
- Diploma in Radio Technology
- Diploma in Instrumentation and Process control Technology

Computer / Software Engineering
- Diploma in Computer Technology
- Diploma in Computer Information Technology
- Diploma in Telecommunication Technology
- Diploma in Electrical Technology
- Diploma in Electronics Technology
- Diploma in Software Technology
- Diploma in Radar Technology
- Diploma in Automation Technology
- Diploma in Radio Technology
- Diploma in Instrumentation/Instrumentation and Process control Technology

Telecom Engineering
- Diploma in Telecom Technology
- Diploma in Electrical Technology
- Diploma in Electronics Technology
- Diploma in Avionics Technology
- Diploma in Instrumentation Technology
- Diploma in Computer Information Technology
- Diploma in Software Technology
- Diploma in Radar Technology
- Diploma in Automation Technology
- Diploma in Radio Technology
- Diploma in Instrumentation and Process control Technology

Environmental Engineering
- Diploma in Civil Technology
- Diploma in Chemical Technology

Note: Diploma holders are eligible to apply in Category-I and Category-II in their specific field only. They are not eligible to apply in any other category.

29.3 **Provisions about admission on the basis of a BSc Degree**

Given the qualifications and restrictions stated below, a person is eligible for admission to the Bachelor's Degree courses at the University on the basis of a degree of Bachelor of Science.

a. For admission to the BSc courses in any engineering discipline, an applicant must have passed the BSc Examination with Physics and Mathematics.

b. A person possessing a BSc degree is NOT eligible for admission to any Bachelors Degree course at the university unless he has also passed FSc. Pre-Engineering or Pre-Medical Examination.

29.4 **Gender**

Both male and female persons are eligible to apply for seats shown in the Seats Allocation Chart in section 30. The general pronoun "he" and its derivatives imply either of the sex.

SEATS ALLOCATION CHART 2016 ENTRY 30

Number of seats allocated for various categories are tabulated below. Admission is granted in each category on merit, subject to eligibility under relevant Sections.

	CATEGORIES	Civil	Mechanical	Electrical	Computer	Software	Telecom	Electronic	Industrial	Environmental	Computer Science	Total
A	Punjab	120	120	110	80	80	80	43	43	43	50	769
*B.	Sindh	1	1	1	-	-	-	-	-	-	-	3
*C.	Balochistan	2	2	2	-	-	-	-	-	-	-	6
*D.	Khyber Pakhtunkhwa	1	1	1	-	-	-	-	-	-	-	3
*E.	A.J.K. and Gilgit Baltistan											
	(i) Azad Kashmir	2	2	1	-	-	-	-	-	-	-	5
	(ii) Kel Area	1	-	-	-	-	-	-	-	-	-	1
	(iii) Gilgit Baltistan	2	2	2	1	2	3	-	1	-	-	13
F	HEC Nominees from Balochistan and FATA	4	4	4	2	2	2	1	1	1	-	21
G	Disable Persons	-	-	-	-	2	-	-	-	-	-	2
H.	Foreign Nationals											
	(i) Foreign Countries	3	3	3	-	-	-	-	-	-	-	9
	(ii) Afghan Nominee	1	-	-	-	-	-	-	-	-	-	1
	(iii) Bangladesh Nominee	1	1	1	-	-	-	-	-	-	-	3
	(iv) Indian held Kashmir	-	1	-	1	1	1	1	-	-	-	5
I.	Diploma of Associate Engineer	3	3	3	2	2	2	1	1	1	-	18
J.	Children of Armed Forces personnel											
	(i) Army	1	2	1	-	-	-	-	-	-	-	4
	(ii) Air Force	-	1	-	-	-	-	-	-	-	-	1
	(iii) Navy	-	-	1	-	-	-	-	-	-	-	1
K.	Federally Administered Tribal Areas	1	1	1	-	-	-	-	-	-	-	3
**L.	Backward Areas	1	-	1	-	-	-	-	-	-	-	2
M.	Children of University Employees	Maximum 5 seats in one discipline										25
N.	Children of Graduate Engineers/ Architects/ City & Regional Planners	1	1	1	-	-	-	-	-	-	-	3
O.	Children of University Alumni	-	-	1	-	-	-	-	-	-	-	1
Q1.	Tribal Areas of DG Khan District	-	-	1	-	-	-	-	-	-	-	1
Q2.	Tribal Areas of Rajanpur District	1	-	-	-	-	-	-	-	-	-	1
T	Tehsil Taxila	-	1	1	-	-	-	-	-	-	-	2
X	Overseas Pakistanis Students	4	4	4	7	9	11	3	3	4	-	49
	TOTAL											**952**

**** Reciprocal Basis***

***** Following Backward Areas of Punjab:***

1. ATTOCK 2. BAHAWALNAGAR 3. BAHAWALPUR 4. BHAKKAR 5. CHAKWAL 6. D.G.KHAN 7. JHANG 8. JHELUM 9. LAYYAH 10. MUZAFFARGARH 11. MIANWALI 12. RAHIM YAR KHAN 13. RAJANPUR DIRSTRICTS.

SEATS ALLOCATION CHART 2016 ENTRY (SUB- CAMPUS , CHAKWAL)

	Categories	Electronic	Mechatronics	Total
W	Punjab	41	41	82
S	Chakwal Domicile	2	2	4
P	Tribal Areas of DG Khan	1	1	2
R	Federally Administered Tribal Areas	2	1	3
Y	Gilgit Baltistan	2	2	4
Z	Children of Overseas Pakistanis	1	2	3
I(1)	Diploma of Associate Engineer	1	1	2
	TOTAL			**100**

CATEGORIES AND SYMBOLS 31

31.1 **Category A (Punjab Province)**
The applicant should be a bonafide resident of the Punjab province. The selection and allocation of disciplines are made according to merit.

31.2 **Category B (Sindh Province)**
The applicant should be a bonafide resident of the Sindh province. 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. Diploma holders are not eligible to apply in this category. The last date for receipt of nominations at UET Taxila (irrespective of mode of communication or the date of postage) is 7days before date of closing of admission. Unfilled seats (if any) will be cancelled after the prescribed date for receipt of nominations. Nominations and allocation of disciplines are made by the Department of Education, Government of Sind, Karachi.

31.3 **Category C (Balochistan Province)**
The applicant should be a bonafide resident of the Balochistan province. Applications are to be submitted to the Secretary, Department of Education, Government of Balochistan, Quetta. Nominations and allocation of disciplines are made by this Department. Diploma holders are not eligible to apply in this category. The last date for receipt of nominations at UET Taxila (irrespective of mode of communication or the date of postage) is 7 days before date of closing of admission. Unfilled seats (if any) will be cancelled after the prescribed date for receipt of nominations.

31.4 **Category D (Khyber Pakhtunkhwa Province)**
The applicant should be a bonafide resident of the Khyber Pakhtunkhwa Province. Applications are to be submitted to Registrar, Khyber Pakhtunkhwa University of Engineering and Technology, Peshawar. Nominations and allocation of disciplines are made by the Department of Education, Government of Khyber Pakhtunkhwa, Peshawar. Diploma holders are not eligible to apply in this category. The last date for receipt of nominations at UET Taxila (irrespective of mode of communication or the date of postage) is 7 days before date of closing of admission. Unfilled seats (if any) will be cancelled after the prescribed date for receipt of nominations..

31.5 **Category E (AK including KEL Area & Gilgit Baltistan)**
The applicant for the Azad Kashmir & Kel Area seats should be a national of Azad Kashmir, and the applicant for the Gilgit Baltistan seat should be bonafide resident of these Areas. For the seats reserved for Azad Kashmir and Kel Area, applications are to be submitted to the Secretary Education, Azad Jammu & Kashmir Government of Muzaffarabad.
For the seats reserved for the Gilgit Baltistan applications are to be submitted to the Director of Education, Gilgit Baltistan. Nominations and allocation of disciplines are made by the Nomination Board for the Azad Kashmir and Gilgit Baltistan. Diploma holders are not eligible to apply in this category. The last date for receipt of nominations at UET Taxila (irrespective of mode of communication or the date of postage) is 7 days before date of closing of admission. Unfilled seats (if any) will be cancelled after the prescribed date for receipt of nominations.

31.6 **Category F (HEC Nominees from Balochistan and FATA)**
The applicant should be a bonafide resident of the Balochistan province or FATA. Applications are to be submitted to the Higher Education Commission (HEC), Islamabad. Nominations and allocation of disciplines are made by HEC. Diploma holders

are not eligible to apply in this category. The last date for receipt of nominations at UET Taxila (irrespective of mode of communication or the date of postage) is 7 days before date of closing of admission. Unfilled seats (if any) will be cancelled after the prescribed date for receipt of nominations.

31.7 **Category G (Disabled Persons)**

The applicant should be bonafide resident of Punjab Province. The applicants will have to furnish a certificate from concerned social welfare,women Development and Bait ul Maal (Provincial Council for the Rehabilitation of Disabled Persons) Government of the Punjab or Federal Government. Verification of his disability in view of provided certificate in relation to engineering education will be done by the Chief Medical Officer, UET, Taxila. The selections are made by the University according to merit. Diploma holders are not eligible to apply. The blind, deaf & dumb persons are not eligible to apply in this category.

31.8 **Category H (Foreign Countries)**

The applicant is required to get his application sponsored by his government, and sent in triplicate to the Ministry of Finance and Economic Affairs (Economic Affairs Division) Government of Pakistan, Islamabad, through Pakistan's representative accredited to his country. The applications should be accompanied by the following documents:

a. Educational Certificates (attested photocopies) and details of syllabi and courses of study of the examinations passed with English translation if these are in a different language.
b. Domicile/Nationality Certificate
c. Passport
d. Character Certificate
e. Health/Fitness Certificate
f. Information regarding the class and discipline in which admission is required. Nominations/Allocation of disciplines is made by the ***Ministry of Finance and Economics Affairs (Economic Affairs Division) Islamabad.*** The prescribed application forms may be obtained from the ministry. Diploma holders are not eligible to apply in this category.

31.9 **Category I (Diploma Holders)**

The applicant should be a bonafide resident of the Punjab province and should have passed the relevant diploma examination from the Punjab Board of Technical Education, Lahore. Selection and allotment of disciplines are made according to merit.

31.10 **Category J (Children of Armed Forces Personnel)**

Applications are to be submitted to the Headquarters of the Army, Air Force or the Navy (depending upon the service to which the parent belongs) in accordance with the procedure notified by them. Diploma holders are not eligible to apply in this category. The last date for receipt of nominations at UET Taxila (irrespective of mode of communication or the date of postage) is 7 days before date of closing of admission. Unfilled seats (if any) will be cancelled after the prescribed date for receipt of nominations. Nominations and allocation of disciplines are made by the respective Headquarters.

31.11 **Category K (FATA)**

The applicant should be a bonafide resident of the Federally Administered Tribal Areas. The applications are to be submitted to the Secretary, State and Frontier Regions Division, Government of Pakistan, Islamabad. Nominations and allocation of disciplines are also made by this Division. Diploma holders are not eligible to apply in this category. The last date for receipt of nominations at UET Taxila (irrespective of mode of communication or the date of postage) is 7 days before date of closing of admission. Unfilled seats (if any) will be cancelled after the prescribed date for receipt of nominations.

31.12 **Category L (Backward Areas of Punjab)**

The backward areas of Punjab include districts of Bahawalnagar, Bahawalpur, Attock, Rahim Yar Khan, Muzaffargarh, Layyah, Rajanpur, Bhakkar, Jhang, D.G. Khan, Chakwal, Mianwali and Jhelum. The applicant should be a bonafide resident of any of these districts. The selection and allocation of disciplines are made by the university according to merit. Diploma holders are not eligible.

31.13 **Category M (Children of University Employees)**

Real children of those university employees who have completed five years of service being physically present are eligible to apply in the following order of preference. The selection is made by the university according to merit.

1. Real children (having passed F.Sc) of those universityemployees whose services have been transferred to University of Engineering and Technology, Taxila vide office order no. 23, dated 11-11-1993.
2. Real children (having passed F.Sc) of those university employees who have joined UET Taxila after 1993.
3. Real children (having passed DAE examination in relevant field) of those university employees whose services have been transferred to UET, Taxila vide office order no.23, dated 11-11-1993 issued by UET, Lahore in accordance with UET, Taxila ordianance 1993.
4. Real children (having passed DAE examination in relevant field) of those

university employees who have joined UET Taxila, after 1993.

5. However only a maximum one candidate will be admitted in one engineering discipline if the real children (having passed DAE Examination in relevant field) of an employee is eligible for admission subject to fullfilling the conditions as mentioned in subclause 3 & 4.The applicants have to furnish with their applications a certificate from the Registrar of the University on Form F-IX (available in Registrar's office).

Note:

i. Diploma holders will only be considered if any of the seats is vacant of 2 % quota as fixed by PEC in the same order of preference as mentioned above.

ii. The children of those university employees are not eligible to apply under this category who have been dismissed/ terminated/removed from the university on any ground except medical grounds or have left the university other than the retirement.

iii. Candidates once admitted in pervious sessions under this category in university or in its affiliated institutes will only be considered in current session after the exhaustion of fresh candidates subject to the availability of seats and admission will be granted on the merit position of candidates without taking care of 1993 bar.

31.14 **Category N (Children of Graduate Engineers)**
The applicant should be a bonafide resident of the Punjab province. The selection and allocation of disciplines are made by the university according to merit. Applicants should furnish with their applications attested photocopies of their parent's Bachelors Degree in Engineering and renewed PEC Registration card. Other qualifications such as AMIE (Pak) are not recognized for inclusion in this category. Diploma holders are not eligible.

31.15 **Category O (Children of University Alumni)**
The selection and allocation of disciplines are made by the University according to merit. The applicant should furnish with his application an attested photocopy of the Degree/Provisional Certificate 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 University College of Engineering. Diploma holders are not eligible.

31.16 **Category Q1 (Tribal Areas of DG Khan)**
The applicant should be bonafide resident of the area of D.G. Khan Tribal Areas. The selection and allocation of disciplines are made by the University according to merit. Diploma holders are not eligible to apply.
Applicant must furnish a certificate from the District Coordination Officer Dera Ghazi Khan verifying that he/she is a bonafide resident of the Tribal Areas of D.G. Khan District and his domicile should also depict that he is a resident of the tribal area of DG Khan.

31.17 **Category Q2 (Tribal Areas of Rajanpur)**
The applicant should be bonafide resident of the area of Rajanpur Tribal Areas. The selection and allocation of disciplines are made by the University according to merit. Diploma holders are not eligible to apply.
Applicant must furnish a certificate from the District Coordination Officer Rajanpur verifying that he/she is a bonafide resident of the Tribal Areas of Ranajpur District and his domicile should also depict that he is a resident of the tribal area of Rajanpur.

31.18 **Category T (Tehsil Taxila Domicile)**
The applicant should be a bonafide resident of Tehsil Taxila. The selection and allocation of disciplines are made by the university according to merit. Diploma holders are not eligible to apply in this category.

31.19 **Category X (Children of Overseas Pakistanis)**
Applications are to be submitted to the University according to the procedure and requirements laid down in this prospectus. 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 (can be downloaded from university website) regarding his parent's employment in a foreign country issued by the Pakistani Embassy in that country.

ii) A photocopy of his parent's valid resident visa for that country attested by the Pakistani Embassy.

Note:

i) Only real children of overseas Pakistanis are eligible to apply. Diploma holders are not eligible.

ii) Scanned / photocopied / Faxed documents will not be accepted. Only original attested copies from the concerned Pakistani embassy will be accepted.

iii) The residence permit / visa must be valid at least up till the closing date of submission of applications.

Categories and Symbols for (Chakwal Campus)

31.20 **Category W (Punjab Province)**
The applicant should be a bonafide resident of the Punjab province. The selection and allocation of disciplines are made by the university according to merit. Diploma holders are not eligible to apply.

31.21 **Category S (Chakwal Domicile)**
The applicant should be a bonafide resident of district Chakwal. The selection and allocation of disciplines

are made by the university according to merit. Diploma holders are not eligible to apply.

31.22 **Category P (Tribal Areas of D.G. Khan)**
The applicant should be bonafide resident of the area of D.G. Khan Tribal Areas. The selection and allocation of disciplines are made by the university according to merit. Diploma holders are not eligible to apply. Applicant must furnish a certificate from the District Coordinator Officer Dera Ghazi Khan verifying that he/she is a bonafide resident of Tribal Areas of D.G. Khan District and his domicile should also depict that he is resident of the tribal area of D.G. Khan.

31.23 **Category R (FATA)**
The applicant should be a bonafide resident of the Federally Administered Tribal Areas. The applications are to be submitted to the Secretary, State and Frontier Regions Division, Government of Pakistan, Islamabad. Nominations and allocation of disciplines are also made by this Division. Diploma holders are not eligible to apply in this category. The last date for receipt of nominations at UET Taxila (irrespective of mode of communication or the date of postage) is 7 days before date of closing of admission. Unfilled seats (if any) will be cancelled after the prescribed date for receipt of nominations.

31.24 **Category Y (Gilgit Baltistan)**
The applicant should be bonafide resident of Gilgit Baltistan. The applications are to be submitted to the Director of Education, Gilgit Baltistan. Nominations and allocation of disciplines are made by the Nomination Board of the Gilgit Baltistan. Diploma holders are not eligible to apply in this category. The last date for receipt of nominations at UET, Taxila (irrespective of mode of communication or the date of postage) is 7 days before date of closing of admission. Unfilled seats (if any) will be cancelled after the prescribed date for receipt of nominations.

31.25 **Category Z (Children of Overseas Pakistanis)**
Applications are to be submitted to the University according to the procedure and requirements laid down in this prospectus. Selection and allocation of disciplines are made by the University according to merit. The applicant is required to submit along with his application

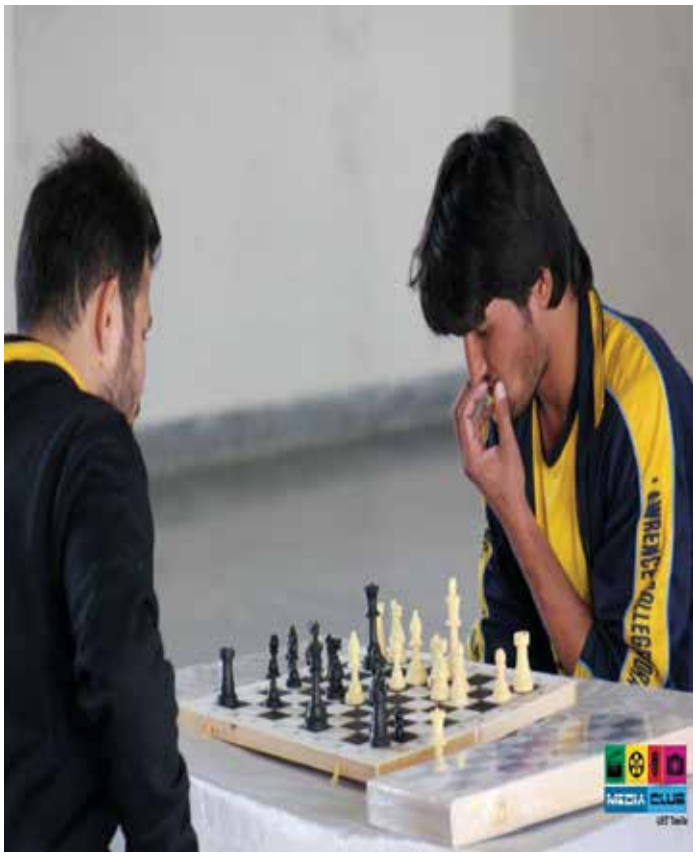
i) A certificate on Form F-VIII (can be downloaded from university website) regarding his parent's employment in a foreign country issued by the Pakistani Embassy in that country.
ii) A photocopy of his parent's resident visa for that country attested by the Pakistani Embassy.

Note:

i) Only real children of overseas Pakistanis are eligible to apply. Diploma holders are not eligible.
ii) Scanned / photocopied / Faxed documents will not be accepted. Only original attested copies from the concerned Pakistani embassy will be accepted.
iii) The residence permit / visa must be valid at least up till the closing date of submission of applications.

31.26 **Category I(1) (Diploma Holders)**
The applicant should be a bonafide resident of the Punjab province and should have passed the relevant diploma examination from the Punjab Board of Technical Education, Lahore. Selection and allotment of disciplines are made according to merit.

Note: Only one F-I is required for all disciplines of Main Campus Taxila and Sub Camups Chakwal. The applicant should precisely and carefully fill the preferences table.



DETERMINATION OF MERIT 32

32.1 Examinations Considered for Merit

For admission to all the Bachelors Degree Courses and determination of merit the following examinations are considered:

i) Higher Secondary School Certificate Examination (HSSC) Pre-Engg or equivalent.
ii) Bachelor of Science (BSc) or BASc.
iii) Diploma of Associate Engineer.
iv) Entry Test.

32.2 Weighted Percentage

The comparative merit of applicants will be determined on the basis of weighted percentage marks obtained by them in these examinations.

A) For Applicants with HSSC (Pre-engineering) as the Highest Qualification

i)	HSSC (Pre-engineering) or Equivalent	70%
ii)	Entry Test	30%

B) For Applicants with BSc OR BASc as the Highest Qualification

i)	BSc or equivalent	35%
ii)	HSSC or equivalent examination	35%
iii)	Entry Test	30%

C) For Applicants Having Diploma of Associate Engineer as the Highest Qualification

i)	Diploma of Associate Engineer	70%
ii)	Entry Test	30%

32.3 Merit of FSc (Pre-medical) with Mathematics

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

32.4 Credit for NCC

Twenty marks are added to the marks obtained in the highest examination of an applicant who has successfully completed the NCC training. An applicant gets the benefit only if he submits with his application an attested photocopy of the original certificate issued by the Director General National Cadet Corps & Women Guard. No substitute for the original certificate is recognized.

32.5 Credit for Hifz-e-Quran

Twenty marks are added to the marks obtained in the highest examination of an applicant who is Hafiz-e-Quran. He gets the benefit only if he:

i) fills in the necessary column provided in the application Form (F-I), and

ii) appears before the 'Verification Committee' appointed by the Vice-Chancellor and the Committee accepts his claim of being a Hafiz-e-Quran.

The Verification Committee will meet for this purpose in the Jamia Mosque Bilal UET, Taxila on the notified date and time. No separate call letters will be issued in this connection.

32.6 **Determination of Merit in case of Equal Percentage of Admission Marks**

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

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

32.7 **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 in Section 31. The details of the distribution of seats are available in the Seats Allocation Chart in Section 30.

The eligible applicants for each category are grouped separately. Then on the basis of the weighted percentage of marks obtained in the relevant examinations, comparative merit of the applicants comprising the group is prepared. The applicants belonging to a category thus compete for admission amongst themselves for the seats allocated to it.

32.8 **Transfer on the Basis of Given Preferences and Merit**

In case a seat in any Discipline/ Category of higher preference given by a candidate falls vacant and he is eligible for transfer to that Discipline/Category on the basis of his merit, he shall be automatically transferred to that Discipline/Category. He will have no right to retain his admission in the previous Discipline/ Category because the seat vacated by him shall be simultaneously allotted to the next eligible candidate on merit.

32.9 **Freezing in any given Discipline and Category**

If an applicant requests in writing to retain the discipline and category in which he has been selected for admission on merit, then he will not have any right to claim his admission in any other discipline and category of higher or lower merit if a seat falls vacant in any discipline.

Applicant desiring to freeze category / discipline must have to apply in person on the prescribed form for this purpose before the next merit list is displayed.

32.10 **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.

32.11 **Typical Examples for the Calculation of Weighted Percentage for Admission**

CASE 1:

Applicants having HSSC (FSc) or Equivalent as the highest qualification

Formula :

70×(HSSC marks obtained + NCC + HIFZ-E-QURAN)/ (HSSC total marks)+ 30×(Entry Test marks obtained/ Entry Test total marks)

Example

An applicant who has obtained 848/1100 in HSSC and 300/400 in Entry Test. He has obtained Haifz - E - Quran Certificate as well.

% Admission Marks=70×(848+20)/(1100)+30×(300/400)= 77.736 %

CASE 2:

Applicants having BSc or BASc as the highest qualification

Formula :

35×(HSSC marks obtained/HSSC total marks)+ 35×(BSc marks obtained + NCC + HIFZ-E-QURAN)/(BSc total marks)+30×(Entry Test marks obtained/Entry Test total marks)

Example

An applicant who has obtained 820/1100 marks in HSSC, 624/800 marks BSc and 360/400 marks in Entry Test, having also NCC certificate:

% Admission Marks =
35×(820/1100)+35×(624+20)/(800)+30×(360/400)
= 81.265%

CASE 3:

Applicants having Diploma of Associate Engineer as the highest qualification

Formula :

70×(Diploma marks obtained + NCC+HIFZ-E-QURAN)/ (Diploma total marks)+ 30×(Entry Test marks obtained/ Entry Test total marks)

Example

An applicant 2570/3100 in Diploma and 240/400 in Entry Test. He has obtained NCC Certificate as well.

% Admission Marks =
70×(2570+20)/(3100)+ 30×(240/400) = 76.483 %

MERITS FOR THE SESSION 2015 (MAIN CAMPUS TAXILA) 33

DISCIPLINES / CATEGORIES	A- Open Merit	G-Disabled Person	L-Backward Areas	O-Alumni	I-Diploma Holders	N-Children of Graduate Engineers	Q1-DG Khan Distt	Q2-Rajan Pur Distt	T-Tehsil Taxila	X-Overseas
Mechanical	74.614	-	74.532	70.432	70.349	72.664	72.239	-	72.177	65.591
Electrical	71.286	-	-	-	69.988	71.145	-	-	75.636	59.85
Civil	72.11	-	-	-	71.41	71.91	-	53.38	-	61.1
Electronic	70.13	-	-	-	68.972	-	-	-	-	56.148
Telecom	67.032	-	-	-	65.566	-	-	-	-	49.039
Industrial	68.195	-	-	-	68.601	-	-	-	-	53.848
Computer	67.445	-	-	-	64.352	-	-	-	-	49.309
Software	69.64	58.7	-	-	69.50	-	-	-	-	48.47
Environmental	65.805	-	-	-	70.665	-	-	-	-	55.15
Computer Science	65.823	-	-	-	-	-	-	-	-	-

Merits for the Session 2015 (Chakwal Campus)

DISCIPLINES / CATEGORIES	W-Open Merit	I-1 Diploma Holders	S- Distt. Chakwal Open Merit	P- DG Khan Distt	Z-Overseas
Mechatronics	65.407	--	65.348	50.207	--
Electronic	65.05	66.79	66.525	--	--

Note: The figures given in this table show "weighted percentage" based on all requisite components.

DOMICILE REQUIREMENTS 34

34.1 Domicile Certificates to be submitted by All Applicants

All applicants are required to submit with their applications an attested photocopy of their domicile certificate failing which their applications shall not be considered for admission.

34.2 Applicants Required to Submit Additional Documents

Applicants for categories A, G, I, L, N, Q1, Q2, T, W, I-1, S, and P who have passed either the Secondary School Examination or the Higher Secondary School Examination from any Board of Intermediate and Secondary Education not included in the Punjab Province or Federal Capital Area, Islamabad, will have to submit additional documents in support of their domicile.

34.3 Additional Documents Required

The applicants who are required to submit additional documents may fall into the following three categories:

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 F-II (can be downloaded form admissions.uettaxila.edu.pk) 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. **Others**

Applicants other than those at sub para "a" above have to submit the following additional documents in support of their domicile certificate:

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 F-III (can be downloaded form admissions.uettaxila.edu.pk) from the election officer of concerned area of the Punjab

Province/ Federal Capital Area, Islamabad to the effect that name of the father/mother of the applicant 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.

v) An undertaking from the candidate on Form F-IV. (can be downloaded form admissions. uettaxila.edu.pk)

c. **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 evidence of his father's/mother's immovable property in Punjab or Federal Capital Area, Islamabad.

ii) Documentary proof of his father's death.

34.4 **Domicile Requirements for 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 A, he has to submit with his application a certificate from the GOC of the area regarding the place of his parent's posting.

35 DOCUMENTS TO BE ATTACHED WITH FORM F-I

An applicant must exercise great care in ensuring that his application form (F-I) is submitted accompanied by the required documents. An application shall stand rejected if any of the required documents is missing. No document shall be accepted after the last date for receipt of applications. The documents required from applicants for different categories are summarized below:

35.1 **Documents to be submitted by All Applicants: (Attested Photocopies)**

a. CNIC/FORM-B

b. Certificate of Secondary School Examination (Detailed Marks Certificate).

c. Degree, Diploma or Certificate of the examination on the basis of which admission is sought (i.e. FSc, BSc, or Diploma of Associate Engineer etc.).

Results cards issued by the board/ university are acceptable. Provisional Certificate in place of Degree/Diploma will not be accepted.

d. Detailed Marks Certificate of the examination on the basis of which admission is sought.

e. Domicile Certificate.

35.2 **Additional Documents (Mandatory)**

To whom applicable:

a. If you have passed FSc. (Pre-medical), you have to submit an attested photocopy of the certificate for additional Mathematics.

b. If you are seeking admission on the basis of BSc Degree you have to submit an attested photocopy of the FSc Certificate as well.

c. If you are applying for **G** category seats, you have to submit a certificate from concerned Social Welfare,Women Development and Bait ul Maal (Provincial Council for the Rehabilitation of Disabled Persons) Government of the Punjab or Federal Government.

d. If you are applying for the **M** Category seats, you have to submit in original a certificate from the Registrar of the university on prescribed **Form F-IX**(Available in the Registrar's office).

e. If you are applying for the **N** Category seats, you have to submit an attested photocopyof the relevant degree of your father or mother and renewed PEC registration Certificate.

f. If you are applying on **O** category seats, you have to submit an attested photocopy of the educational degree/certificate of your parent as an evidence of the fact that he (parent) was a graduate of this university or its parent institution, i.e. the former University College of Engineering.

g. If you are applying on **P, Q1** or **Q2** category seats, you have to submit a certificate from the District Coordination Officer verifying that he is a bonafide resident of the tribal areas of respective districts

h. If you are applying on **X** or **Z** category seats, you have to submit

i) A Certificate on **Form F-VIII** (can be downloaded from university website) regarding his parent's employment in a foreign country issued by the Pakistani embassy in that country.

ii) A photocopy of his parent's valid resident visa for that country

attested by the Pakistani Embassy.

i. If you have successfully completed the **NCC** training and wish to claim 20 marks you have to submit an attested photocopy of the certificate issued by the Director General National Cadet Corps and Women Guards.

j. If you are claiming 20 marks for being **Hifz-e-Quran,** read clause 32.5 of the prospectus carefully.

k. If you are the son of Armed Forces Personnel and are seeking admission not against the seats reserved for the province of your domicile but against the seats reserved for the province where your parent is posted, you have to submit in original certificate from the **GOC** of the area about the place of your parent's posting.

l. If you are applying for any category requiring the Punjab domicile and you have passed either the Secondary School Examination or the Higher Secondary Examination from a Board or Institution not included in the Punjab/Federal Capital Area, Islamabad. You should read section 34.2 & 34.3 carefully to find out the additional documents, you have to submit alongwith **Form F-I**.

Note: The Forms F-V, F-VI and F-VII are not to be submitted along with the application. They are required at the time of admission/registration.

HOW TO COMPLETE THE APPLICATION FORM 36

Only online filled application Forms will be accepted. A candidate can fill the application form (F-I), available online at: admissions.uettaxila.edu.pk
While filling the FORM (F-I) please read the following instructions carefully:

Instructions for Online Filling of Application Form (F-I):

- On the web-link admissions.uettaxila.edu.pk, click on My UET button.
- Enter your ID Card/B Form No. issued by NADRA, set password and then click **Register** button for registration with UET to access the application Form.
- The Candidate can **Sign in**.
- Please fill the personal information, applicable options, Educational information and preferences .
- The candidate can **Sign in** again and again to see/edit his/her data until he /she submits his/her final printed application Form BY HAND in Admission Office, UET, Taxila.
- After filling the Application Form online according to given instructions, applicant will get its prinout, sign it and attach requisite documents,along with the Declaration Form-(F-0, avaiable in the Prospectus) and then submit BY HAND in the Admission Office ,UET , Taxila

36.1 Only one application form is to be submitted for any number of disciplines and categories you apply for.

36.2 All entries should be in BLOCK LETTERS.

36.3 **Fill the column for preferences very carefully. The order of preferences once given shall be final and cannot be changed subsequently, after the submission of Application Form in Admission Office.**

36.4 Under column "Discipline" use the following abbreviations:

Taxila Campus

Civil Engineering	**Civil**
Computer Engineering	**Computer**
Electrical Engineering	**Electrical**
Electronic Engineering	**Electronic**
Mechanical Engineering	**Mechanical**
Software Engineering,	**Software**
Telecommunication Engineering	**Telecom**
Industrial Engineering	**Industrial**
Environmental Engineering	**Environmental**
Computer Science	**CS**

Chakwal Campus

Electronic Engineering	**Electronic**
Mechatronics Engineering	**Mechatronics**

36.5 Under the column "Category" use only the symbols (i.e. A, G, I, L, M, N,O, Q1, Q2, T or X) for Main Campus and use the symbols W, S, P, Z or I-1 for Chakwal Campus.

For Example :

Sr. No.	Discipline	Category
1	Electrical	A
2	Electronic	A
3	Mechanical	A
4	Electronic	W

Now the above table shows that your:

- 1st preference is Electrical (Main Campus) for Open merit seats.
- 2nd preference is Electronic (Main Campus) for Open merit seats.
- 3rd preference is Mechanical (Main Campus) for Open merit seats.
- 4th preference is Electronic (Chakwal Campus) for Open merit seats.

36.6 Deadline for Receipt of Applications

The application form complete in all respects along with the requisite documents should be sumitted Personally (by hand) in the Admission Office, UET, Taxila on or before the last date notified for submission of applications.

36.7 Incomplete Applications

Incomplete applications shall not be entertained. Application form, fee and the documents submitted with it shall not be returned on any ground.

PROCEDURE FOR THE SELECTED CANDIDATES 37

37.1 Notification of Selection

A list of selectees will be displayed on official University web site(admissions.uettaxila.edu.pk). The applicants can check the merit lists according to the schedule given in Section 40.

IMPORTANT: Consideration in 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 UNIVERSITY DUES AND ORIGINAL DOCUMENTS**. If he fails to do so, his name would be excluded from any future merit lists and his admission would be cancelled.

37.2 Depositing of Dues and Documents

Within specified days mentioned in the admission schedule (admissions.uettaxila.edu.pk), a selectee is required to pay the university dues and submit the following documents to the Convener, Admission Committee:

a. Bank Challan receipt in support of the University Dues deposited in the Habib Bank Ltd., Engineering University Branch Taxila.
b. Medical Certificate (F-V) duly signed and stamped by the District Medical Superintendent or the Medical Officer of the university or a Commissioned Medical Officer.
c. Ten attested and most recent photographs.
d. Attested Certificate of parent's/ guardian's income.
e. Original degrees, certificates and result cards of SSC, FSc. BSc, GCE(A), Diploma of Associate Engineers or the equivalent qualifications and their duplicate attested photocopies.
f. Original Marks Sheet of Entry Test.
g. Original NCC certificate.
h. Original Domicile certificate.
i. Attested photocopy of National Identity Card/Form B.
j. Bio-Data Sheet (F-VI) duly completed.
k. Undertaking (F-VII) on a Rs.50/- judicial paper duly completed.

37.3 Relaxation in Time Limit

If a selectee is prevented by unavoidable circumstances from timely fulfillment of the requirements laid down in 37.1 and 37.2, 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, which shall not exceed **THREE** days.

37.4 Forfeiture of Right for Admission

A selectee who fails to fulfill the requirements laid down in 37.1 and 37.2 within the prescribed time limit shall forfeit his right of admission and **will not be considered in subsequent merit lists.**

37.5 Provisional Admission

On fulfillment of the obligations mentioned in 37.1 and 37.2 a selectee will be admitted to the university. This admission shall however, be provisional until all the original degrees or certificates, submitted by him, have been verified for their veracity. In case any document proves to be false, fake, fabricated or do not comply towards eligibility criteria mentioned in section 29 found 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 favor of the university.

37.6 Deadlines for Admission

Admission shall be closed from date as given in admission schedule (clause 40).

37.7 Notification of Selection of Categories B, C, D, E, F, H, J, K, R, Y

The applicants for the seats reserved for these categories will be informed about selections by the authority responsible for their selection. After that the university will issue them call letters with a target date to report in the Admission Office to complete the remaining admission formalities.

FEES AND OTHER CHARGES 38

38.1 The following fees and charges are to be paid by the students admitted to the bachelor degree courses. The same are subject to revision/modification by the University authorities at any time without prior notification.

Subject	Open Merit and all other categories except X & Z	Children of Overseas Pakistanis Categories X & Z
Non-Recurring (Payable at the time of admission)	**(In Pak. Rupees)**	**(In Pak. Rupees)**
Admission fee/Re-admission Fee	2000	5000
Registration Fee	2000	2000
University/ Library Security (Refundable)	10000	10000
Survey Camp Charges (for Civil Engg. Only)	1500	1500
Students Bus Card Fee	30	30
Students Identity Card Fee	125	125
Verification Fee	1000	1000
Recurring Fee (per semester)		
Tuition Fee	26000	90000
Tutorial Fee	200	200
Inter-University Tournament Fee	200	200
Magazine Fee	200	200
Medical Fee	500	500
Library Fund	500	500
Book Bank Rent	300	300
Instructional Tour Fee	500	500
Recreation Fee	600	600
Bus Fare for Resident	1500	1500
Bus Fare for Non-Resident	6000	6000
Stationery Charges	100	100

38.2 For Examination Fees, see the relevant section.

38.3 The University also grants fee remission and fee concession on merit as well as need basis. Students are directed to maintain their own personal record of original receipts of dues till clearance to avoid problem in future. Non production of original Dues receipts on demand can be considered as non deposit of fee.

38.4 The Dean of the concerned faculty, on the recommendation of the Chairman concerned, may grant extension in payment of dues to the needy students on cogent reasons recorded in writing for a maximum period of 30 days beyond the schedule of the dues circulated by Dues & Scholarship Section. He / she may also allow the payment of dues in TWO installments. However, remission of late fee fine or re-admission fee cannot be waived off if extension is not allowed by Dean beyond the extension period.

38.5 University dues received in favor of students under loan scheme of National Bank of Pakistan will be adjusted against his / her outstanding dues. In case, the university has extended fee concession to a student, the same will not be withdrawn. The amount equal to fee concession will be paid to the concerned student to enable them to return the amount to NBP themselves to reduce their loan liability.

38.6 Financial assistance / Scholarship received from UET or any other agency/ organization, the fee will be adjusted for his / her outstanding dues. The amount will not be refunded to the student. In case he/she has already been granted Half/ Full fee concession for the said period, it will stand cancelled automatically and he / she will deposit the fee concession amount in favor of the university or financial assistance will be adjusted against outstanding dues. Student can avail one financial assistance scholarship from any agency at a time.

38.7 **HOSTEL CHARGES**

	(In Pak. Rupees)
Hostel Security (Refundable) Payable at the time of admission	5000
Mess Security (Refundable) Payable at the time of admission	3000
Service and Contingency Charges (Payable at the time of admission)	1000
Room Rent (Per Semester)	
Cubicle	1500
Dormitory	1200
Electricity Charges (Per semester)	2400
Room Heater/fans	1800
Sui Gas Charges	600
Air Cooler Charges (per session)	1200

38.8 **Periods of Fees and Other Charges:** The Non-Recurring fee are charged at the time of admission while the recurring fee are charged per semester. The hostel charges are payable for the whole semester. Electricity charges for fans are payable for summer session and will be charged with the fee during

spring semester. While the electricity charges for room heaters are payable for winter session and will be charged with the fee during fall semester. With the prior permission of the Senior Warden, the resident students can use air coolers during summer session. They will be charged an additional amount of Rs. 1200/- per room per session.The charges for room heaters are payable for winter session and will be charged with the fee during fall semester.

38.9 **Securities**

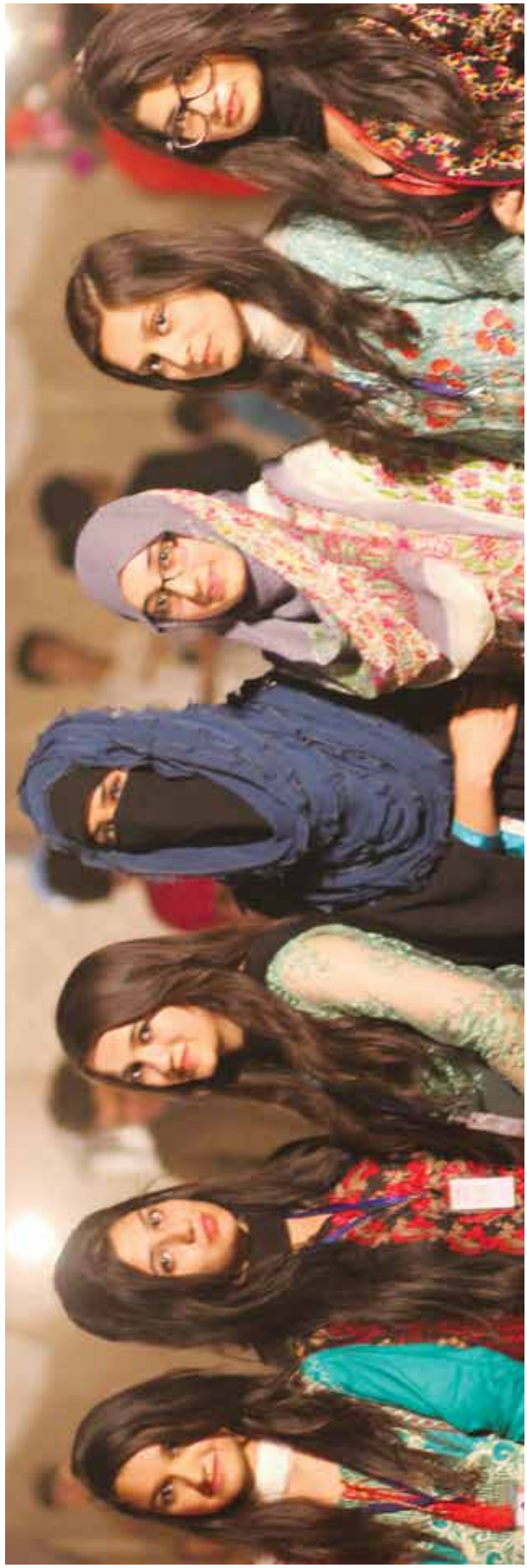
All kind of securities mentioned above remaining unclaimed for two years from the date of becoming due for refund shall lapse to the University for transfer to the Endowment Fund.

38.10 **Refund of Securities**

The university security, library security, hostel security and mess security are refunded when a student leaves the university or the hostel (in case of mess security) after deduction of outstanding dues of the university, library, or the hostel respectively. The university security, however, shall stand forfeited if a student withdraws from or leaves the university before completing the first year.

38.11 **Non-payment of Fee and Charges**

A fine of Rs.10.00 per day will be charged for a period of 10 days after the last date fixed for payment of fees and charges. After that, the name of the defaulter will be struck off the rolls of the university and he / she will have to pay the re-admission fee along with the fees and fine before he is re- admitted. Application to this effect shall be submitted to the concerned Dean of Faculty. However, a student who receives scholarship through the university Treasurer may pay his / her fee and charges without fine within a week of receipt of the scholarship for the corresponding period.



CHAKWAL CAMPUS

CHAKWAL CAMPUS UET TAXILA

39

Campus Director

Prof. Dr. Aftab Ahmad

PhD (UET, Taxila)

The Chakwal City

The city was founded during the era of Mughal emperor Zaheer-ud-Din Babar. Alexander the great also passed through this region in 326 B.C. One of the Muslim Scientists Al-Beruni came to this valley and stayed here for some time. During his stay at Katas, he not only learned Sanskrit but also performed various geographic experiments and successfully measured the radius of earth. Chakwal district is rich in natural resources such as coal, limestone, gypsum, salt, petroleum and other valuable minerals. Three cement plants with total production capacity of 24000 tons per day are already operational. Some textile factories and oil exploration companies are also working in the surrounding area.

The Sub-Campus Chakwal

Almost thirty years after the establishment of the main campus, first campus of UET Taxila at Chakwal started functioning in the year 2005. So far, ten sessions have been enrolled in Electronic and Mechatronics engineering. Annual intake in each discipline is 50.

Location

The Sub-campus is situated in the heart of the Chakwal city in old Kachehri complex on Talagang road, Chakwal is located 110 Km south-east of the capital city of Islamabad in the Dhanni region of the Pothohar Plateau. The Chakwal campus can easily be approached by either of the two exits on the Motorway M2. i.e., Balkasar and Kallar Kahar. The main campus is under construction near the Balkasar Interchange.

Administration

The Campus Director under the supervision of Vice-Chancellor UET Taxila is the administrative and academic head of the Sub-Campus Chakwal. The overall management policy guidance is provided by the University Syndicate. The various academic and administrative bodies delineated in the UET's charter, function actively. The normal academic procedures and administrative rules of the UET Taxila are followed in the Sub- Campus Chakwal.

Academic Programs

The sub-Campus Chakwal of UET Taxila offers four years under graduate programs in Electronic Engineering and Mechatronics Engineering . The Engineering Programs are accredited by Pakistan Engineering Council (PEC).

Future Plan

UET Taxila, sub-camups Chakwal is planning to add more disciplines at Balkasar where 950 kanal land is already acquired for this purpose.

Hostel Facility

At present, Hostel facility is NOT available at the sub-campus Chakwal. Students applying for admission at Chakwal Campus must keep in mind that they have to arrange for their residence at their own in Chakwal City.

Rules and Regulations

In general, all the rules and regulations mentioned for the main campus (UET Taxila) in the prospectus are applicable for Sub- Campus Chakwal.

SERVICES AND COMMON FACILITIES

Accounts/Establishment

Mr. Muhammad Furqan (MBA H&R)
(Assistant Registrar)

This section of the Campus is providing all the account and establishment facilities to the students, staff and faculty. All of the accounts activities of the Campus are managed with in campus under the supervision of Assistant Registrar

Examinations

Mr. Muhammad Azam (MBA)
(Assistant Controller)

Examination Department is responsible for conduction of semester examination and all other issues related to examination.

Internet Services

Mr. Aamir Hussain (MCS, CCNA, CCNP, MCITP, MCTS, CCAI)
(Network Administrator)

In campus more than 400 network/internet users are provided with the facility of internet and LAN services through Ethernet and Wi-Fi connectivity. There is dedicated link of 12 mbps through PERN connectivity provided by HEC for internet services of the campus.Also a backup link of 8 mbps from PTCL is available to give un-interrupted services of internet to the students, staff and faculty.

Health

Dr. Anjum Qadeer (MBBS)

The Campus provides free medical facilities to the students, staff and faculty. A visiting MBBS Doctor is available for routine medical checkup, to deal in case of any emergency and other medical matters.

Library

Mr. Hassan Yousaf (MA Library Sciences)
(Asstt. Librarian)

The Library has a number of books of scientific and technical serials on diverse fields. Besides engineering subjects, considerable reading material on humanities, social sciences and Islamic Studies is available. The members can borrow books and other materials, (except serials, reference or reserved books) for specific periods.

Transport

Engr. Shahbaz Ahmed (M.ScEngg.)
(Transport Officer)

There is one Bus, Van, Hiace and Cultus Suzuki Car is available to provide transport facilities for students, staff and faculty.

Sports

Mr. Muhammad Azam
(Convener Sports Committee)

The Campus provides facilities to the studentsfor participation in games and sports, both outdoors and indoors. A Campus Sports Committee comprising University staff, teachers and students supervises the sports activities. Facilities are provided for all the major sports including cricket, hockey, football, tennis, badminton, basketball, squash and athletics. Outstanding sportsmen are encouraged to takepart in the above stated games. The exercise facilities are provided in the Gym in the evening. Major types of fitness and exercise machines are available in the Campus.

Discipline

Dr. Tariq Mehmood (PhD)
Director Students Affairs (DSA)

The primary function of the directorate is to organize extra curricularactivities of the students and to foster their intellectual, literary, and artistic potentials, which remain untapped inthe classroom. There are different clubs and societies which are devoted for sports or cultural and artistic activities. The students join these clubs and societies according to their inclinations and aptitudes. Another function of the directorate is to maintain liaison with a wide cross section of students and to be responsive to their needs and problems. The directorate also works to promote, amongst students, respect for the dignified and disciplined behaviors befitting a university student and prospective member of the honored community of engineers of Pakistan. Following clubs and societies at Sub-Campus Chakwal are functioning:

- Cultural and Dramatic Society
- Campus Sports committee
- Environment Protection Society
- Mechatronics Club
- Media Club
- Electromind
- Literary Society
- Editorial Board

Building & Works

Mr. Muhammad Saleem
(Overseer)

B & W section provides all kind of building and works issues including sanitation, gardening facilities to the Campus.

Security

Mr. Muhammad Furqan
(Security Officer)

Campus provides fool proof facility of security to the students, staff and faculty. There are some armed guards which are hired from a security company and some are self-recruited armed security guards to provide security to the campus.

Student Section

Mr. Junaid Jabbar
(Assistant)

Student Section of the Campus provides all kinds of services related to the student matters like fee issues, refunding of security fee and clearance at the completion of degree.

IMPORTANT CONTACT NUMBERS

Campus Director:	0543-602004
Director Office:	0543-602003
Chairman Mechatronics:	0543-540625
Chairman Electronic:	0543-551278

DEPARTMENT OF ELECTRONIC ENGINEERING

Faculty

Chairman

Dr. Yaseer Arafat Durrani

Professor

Dr. Aftab Ahmad
MSc Engg (UET, Taxila)
PhD Engg (UET, Taxila)

Assistant Professors

Dr. Yaseer Arafat Durrani
MSc Engg (Roval Institute of Technology, Sweden)
PhD Engg (Polytechnic University of Madrid, Spain)

Dr. Tariq Mehmood
MSc (PU, Lhore)
PhD (QAU, Islamabad)

Engr. Ahmad Umar Niazi
MSc Engg (UET Taxila)

Engr. Furqan Shaukat
MSc Engg (UET, Taxila)

Engr. Hammad Zaki
BSc (DCET,Karachi)
MSc Engg (UET, Taxila)
(on Higher Studies abroad)

Engr. Muhammad Usman
MSc Engg (UET Taxila)

Engr. Khawaja Shafiq Haider
MSc Engg (NUST, Islamabad)

Engr. Muhammad Abdul Basit
BSc (Fast NU, Islamabad)
MSc UET, Taxila
(on Higher Studies abroad)

Engr. Akhtar Rasool
BSc Engg (UET, Lahore)
MSc Engg (DU, Sweden)
(on Higher Studies abroad)

Engr. M. Laiq Ur Rahman Shahid
BSc Engg (UET, Taxila)
MSc Engg (UET Taxila)
(on Higher Studies abroad)

Lecturers

Engr. Faisal Masood
BSc Engg (UET, Taxila)
MSc Engg (UET, Taxila)

Engr. Haq Nawaz
BSc Engg (UET, Taxila)
MSc Engg (UET Taxila)
(on Higher Studies abroad)

Engr. Sadaqat Ali
MSc Engg (UET, Taxila)

Engr. Muhammad Tahir Iqbal
BSc Engg (COMSATS Abbottabad)
MSc Engg (UET, Taxila)

Lab Engineers

Engr. Safia Bibi
BSc Engg (UET, Taxila)
MSc Engg (UET, Taxila)

Engr. Muhammad Usman Zahid
BSc Engg (BUITMS Quetta)

Engr. Muhammad Tahir Khan
BSc Engg (IIU, Islamabad)
MSc Engg (HITEC, Taxila)

The Department

Electronic Engineering is one of the major fields in industry. It finds vast range of applications. At sub campus Chakwal, we offer BSc. degree in Electronic Engineering. The Department has twelve full time Faculty members and around 170 Students enrolled. Six batches of Department have passed out and the program is PEC accredited. We have well equipped laboratories of Electronics, Computer Systems, Embedded Systems, Communication Systems, Circuits & Measurements, and two new labs of Electrical Machines and ASIC Design & DSP lab. The Department has established Industrial Linkages to Support its students for their projects, internships and jobs.

Laboratories

Electronics Lab

(Lab Director: Engr. Ahmad Umar Niazi)

Electronics Lab is one of the major Labs in the department. The lab is equipped with Power Electronics Trainers and Test Equipment including Function Generators, Power Supplies, Oscilloscopes and DC Power Supplies. The scope of the Lab includes subjects like Basic Electronic Engineering, Electronic Circuit Design, Integrated Electronics, Power Electronics and other related courses.

Circuits and Instrumentation Lab

(Lab Director: Engr. Khawaja Shafiq Haider)

The lab provides practical work facilities for courses of Circuit Analysis-I, Circuit Analysis-II, Instrumentation and Measurement, Industrial Electronics and other related courses. The lab includes state of the art equipment to support the subjects.

Embedded Systems Lab

(Lab Director: Dr. Yaseer Arafat Durrani)

The Laboratory covers the Courses like FPGA- Based System Design, Digital Logic Design, Microprocessors and Microcontrollers and other related subjects. The lab includes Xilinx based FPGAs, Microcontroller trainers of PIC and 8051, Texas DSP kits and other test equipment.

Computer Lab

(Lab Director: Engr. Furqan Shaukat)

The lab has latest computers to support all courses requiring computer simulations including Programming Fundamentals, Object-Oriented Programming, Computer Aided Engineering Design, Computer Communication Networks and other related courses.

Communication Systems Lab

(Lab Director: Engr. Muhammad Usman)

The lab is equipped with Antenna Trainers, Communication Trainers, Transmission Line Trainer, Spectrum Analyzer and other test equipment. The lab supports courses like Analog and Digital Communications, Antenna and Wave Propagation, Micro Wave Engineering and other related courses.

Research Lab

(Lab Director: Dr. Yaseer Arafat Durrani)

The Electronics Research Laboratory specializes in electronic and computerized measurement methods. The main emphasis is to develop methods suitable for the needs of the industry.

ASIC Design and DSP Lab

(Lab. Director: Dr. Yaseer Arafat Durrani)

The objective of ASIC & DSP Lab. is to cover the areas of Advanced Digital Design and Signal & Image Processing. This Laboratory is used for practical hands-on training of FPGA-Based Design, Digital Signal Processing (DSP) , Digital Image Processing & Digital Design. The advance equipments of Texas instruments, Analog Devices, Xilinx and National Instruments with 20 new Core i7 computers having Mentor Graphics are available in the laboratory.

Electrical Machines Lab

(Lab. Director: Engr. Faisal Masood)

The objective of Electrical Machines Lab. is to cover the area of Electrical Machines and Transformers. This Laboratory is used for practical hands-on training of Electrical Machines of Labvolts having data acquistion system. The electrical machines available in this lab are, Asynchronous Machines, Synchronous Machines, DC Machines and Transformers. These are covered in detail by explaining the objectives, discussing electrical diagrams, giving brief overview of the theory and associated formulae for a thorough understanding and summarization of the results, for subsequent analysis and discussion.

Courses of Study for Undergraduate Program
BSc Electronic Engineering

1st Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EE- 111	Circuit Analysis-I	2	1
CS- 112	Programming Fundamentals	3	1
BH-113	Applied Physics	3	0
BH-114	Calculus and Analytical Geometry	3	0
BH-115	Pak Studies	2	0
BH-116	Functional English	3	0
		16	**02**
	Total	**18**	

2nd Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EE-121	Basic Electronic Engineering	3	1
EE-122	Digital Logic Design	3	1
CS-123	Object Oriented Programming	3	1
BH-124	Differential Equations	3	0
BH-125	Linear Algebra	3	0
		15	**03**
	Total	**18**	

3rd Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EE-211	Circuit Analysis-II	3	1
EE-212	Electronic Circuit Design	3	1
CS-213	Digital Systems	3	1
CS-214	Engineering Drawing	0	1
BH-215	Complex Variables and Transforms	3	0
BH-216	Islamic Studies	2	0
		14	**04**
	Total	**18**	

4th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EE-221	Electrical Machines	3	1
EE-222	Electromagnetic Field Theory	3	0
EE-223	Microprocessor And Microcontrollers	3	1
EE-224	Signal and Systems	3	0
BH-225	Understanding Psychology and Human Behavior	3	0
		15	**02**
	Total	**17**	

5th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EE-311	Instrumentation and Measurements	3	1
EE-312	Integrated Electronics	3	1
EE-313	Control Systems	3	1
EE-314	Probability And Random Variables	3	0
BH-315	Technical Writing	2	0
BH-316	**Chemistry/Biology**	**3**	**0**
		17	**03**
	Total	**20**	

6th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EE-321	Digital Signal Processing	3	1
EE-322	Analog And Digital Communication Systems	3	1
EE-323	Power Electronics	3	1
BH-324	Numerical Analysis	3	0
BH-325	Communication skills	3	0
		15	**03**
	Total	**18**	

7th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EE-411	Elective-I	3	1
EE-412	Elective-II	3	0/1
EE-413A	Electronic Engineering Project	0	3
ME/MT-414	IDEE	3	0
MS-415	Entrepreneurship	3	0
		12	**4-5**
	Total	**16-17**	

8th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
EE-421	Elective-III	3	1
EE-422	Elective-IV	3	0/1
EE-413B	Electronic Engineering Project	0	3
MS-424	Engineering Economics and Management	3	0
		09	**04**
	Total	**13**	
	Grand Total	**138**	

Abbreviations used:

BH: Basic Sciences & Humanities
EE: Electronic Engineering
CS: Computer Sciences
MS: Management Sciences

Ratio of Engineering to non Engineering Subjects:

Engineering Subjects:	27	65%
Non Engineering Subjects:	15	35%
Total Subjects:	42	

Ratio of Engineering to non Engineering Credit hours

Engineering Credit hours:	96	70%
Non Engineering Credit hours:	42	30%
Total Credit hours:	138	

List of Elective Courses

- EE-4XX Microelectronic Technology
- EE-4XX Opto-Electronics
- EE-4XX Digital Instrumentation Systems
- EE-4XX Industrial Electronics
- CS- 4XX Advanced Objected-Oriented Programming
- EE-4XX VLSI Design
- EE-4XX Microwave Engineering
- EE-4XX Wave Propagation and Antennas
- EE-4XX Navigational Aids
- EE-4XX FPGA-Based Systems Design
- EE-4XX Digital Control Systems
- EE-4XX Digital System Design
- EE/CS-4XX Computer Communication Networks
- EE/CS-4XX Artificial Intelligence
- EE-4XX Biomedical Instrumentation
- EE-4XX Laser and Fiber Optics
- EE-4XX Mobile Communications
- EE-4XX Satellite Communications
- EE/CS-4XX Introduction to Neural Networks
- EE/CS-4XX Fuzzy Logic and Simulation
- EE-4XX Advanced Communication Systems
- EE-4XX Optical Communication Systems
- EE/CS-4XX Digital Image Processing
- EE/CS-4XX Pattern Recognition and Matching
- EE-4XX Embedded System Design
- EE-4XX Advance Topics in Electronics
- EE-4XX Filter Design
- EE-4XX Medical Imaging

List of Interdisciplinary Engineering Electives (IDEE)

- MT-4XX Introduction to Robotics
- MT-4XX Mechatronics Applications
- ME-4XX Thermodynamics
- MT-4XX Mechanics of Materials
- ME-4XX Theory & Design of Machines
- ME-4XX Engineering Dynamics
- MT-4XX Materials & Manufacturing Processes

Note:

All the above mentioned Elective courses are either 3+0 credit hours or 3+1 credit hours. The Elective courses (either 3+0 or 3+1) offered by the department in a semester can be changed depending on the availability of teachers and related Lab facility and will be notified before the start of the semester.

DEPARTMENT OF MECHATRONICS ENGINEERING

Faculty

Chairman

Dr. Amir Sultan

Professor

Dr. Muhammad Shahid Khalil
PhD Engg (Sheffield, UK) , PGD(HRM), PGD(Quality)

Assistant Professors

Dr. Amir Sultan
MSc Engg (Sheffield, UK)
PhD Engg (UET Taxila)

Dr. Hafiz Muhammad Khurram Ali
MSc Engg (UET Taxila)
PhD Engg (UET, Taxila)

Engr. Shahid Mehmood
BSc Engg (UET Taxila)
MSc Engg (UET Taxila)

Dr. Abdul Mannan
MSc Engg (UET Lahore)
PhD Engg (S.Korea)

Engr. Muhammad Khuram Saleem
BSc Engg (UET, Lahore)
MSc Engg (UET Lahore) (on higher studies abroad)

Engr. Ahmed Nouman
BSc Engg (UET, Lahore)
MSc Engg (UET Lahore) (on higher studies abroad)

Engr. Irfan Azhar
BSc Engg (UET, Lahore)
MSc Engg (UET Taxila) (on higher studies abroad)

Engr. Javed Akhter
BSc Engg (UET, Lahore)
MSc Engg (UET, Lahore)

Dr. Shafiq Ur Rahman
PhD (IIU, Islamabad)

Lecturers

Engr. Muhammad Asif
BSc Engg (UET, Taxila)
MSc Engg (UET, Lahore)

Engr. Bushra Nawaz
BSc Engg (UET, Taxila)
MSc Engg (UET, Taxila)

Engr. Shahbaz Ahmad
BSc Engg (UET, Taxila)

Engr. Najam ul Hassan Shah
BSc Engg (UET, Lahore)

Engr. Zubair Butt
BSc Engg (UET, Lahore)
MSc Engg (UET, Taxila)

Engr. Abdullah Tariq
BSc Engg (NUST)

Lab Engineers

Engr. Arqam Razzaq
BSc Engg (UET, Taxila)

Engr. Bilal Ahmed
BSc Engg (UET, Taxila)

Engr. Muhammad Naeem Zafar
BSc Engg (UET, Taxila)

The Department

Mechatronics is the synergistic combination of precision mechanical engineering, electronic control and systems thinking in the design of products and manufacturing processes.To meet the quality and productivity demands, industries are compelled to use sophisticated electromechanical systems. Mechatronics Engineering caters the national needs of industries in the field of Robotics, Automated Manufacturing Equipment, Automobiles, Security Systems, Treatment Plants and Medical Equipments, etc.

Laboratories

CAD and Simulation Lab.

(Lab Director: Engr. Najam ul Hassan)

Modeling and simulation is an integral part of Mechatronics design approach. This lab offers computer facilities that can be used by students for developing model of real systems and testing of these systems by simulation. The laboratory has latest computers to support the courses like Computer Programming, Computer Aided Design (CAD), Numerical Methods, Modeling and Simulation, Artificial Intelligence and Image Processing.

Robotics and Automation Lab.

(Lab Director: Engr. Shahbaz Ahmad)

Automation plays a key role in the moderen production industries. Industrial Robots, CNC Machines, Programable Logic Controllers (PLCs) are important constituents of mordern manfacturing system. This lab addresses the needs of Mechatronics Engineers. Here, students get hands on experience on PLCs , Industrial Robots and CNC Machines. The lab equipment includes SCARA Robot, Gryphon Robot, CNC Machines, PLC and Pneumatic Trainer. The lab has resources for conducting experiments for the subjects of Robotics and Industrial Automation.

Mechanics Lab.

(Lab Director: Engr. Shahid Mehmood)

This lab enables students to test their mechanics concepts. Mechanics is very important for motion controlled systems like Robots and CNC Machines. By performing experiments on equipment present in lab students can test their porjects for statics and dynamics.The lab equipments include Basic Roof Truss, Creep Test Apparatus, Torsion of Shaft Apparatus, Screw Jack, Derrick Crane Force and Moment Kit, Worm and Worm Wheel Apparatus, Stepped Shaft Apparatus, Friction on Inclined Plane Apparatus, Hook's law Apparatus, Beam Simple Moment Appratus, Reaction Apparatus, Shear Apparatus. The lab equipment also includes Universal Rubber Testing Machine, Impact Testing Machine, Hardness Testing Machine, Creep Testing Machine, Torsion Shaft Apparatus and Beam Reaction Apparatus. The lab is well equipped for conducting experiments of Mechanics of Materials subject.

Instrumentation and Control Lab.

(Lab Director: Engr. Bushra Nawaz)

Instrumentation and Control engineering are crucial areas of Mechatronics Engineering. Sensors availaility is not that common in Pakistan and students generally struggle to buy many types of sensors. This lab is equipped with interactive sensor kits which help in developing concepts related to general working of control systems. Also, servomechanisms can be used to verify control system's concepts. The lab covers courses like Instrumentation and Measurments, Control Sytems and Advanced Control Systems. The lab is equipped with Sensor Transducer Kits, Magnetic Levitation system, Servo Mechanism Bridges, MIMO Twin Rotor System and Actuators.

Workshop (Lab Director: Dr. Hafiz Khurram Ali)

This lab enables students to fabricate different jobs used in their projects. Fabrication, furnishing, welding, grinding and other operations can be done here. The lab also provides an idea about conventional machining to press, weld and solder different matrerials. All hand tools required for the practical work in Smithy Shop, Fitting Shop, Electrical, PCB work Shop and Carpentry Shop are avaiable here. The laboratory covers the scope of courses like Workshop Practice and Machine Tools and Manufacturing Processes. Students use this facility while working on their final year projects.

Mechatronics System Design Lab

(Lab Director: Engr. Muhammad Asif)

This lab offers equipment and facilities that can be used for student projects. This lab provides conducive environment to students working on their final year projects. The lab is equipped with Computers, Oscilloscopes, Power Supplies, Function Generators, PIC Training Kits, 8051 Training Kits, Digital Multimeters, Soldering Stations, Bread Boards, Motors, Various ICs and work benches which provide the students solid platform to construct their projects.

Thermo-Fluids Lab

(Lab Director: Engr. Shahid Mehmood)

Thermodynamics and Fluid Mechanics is the basis of Mechatronics Enineering. The purpose of this lab is to provide the students the necessary analytical skills to solve and analyze a variety of Thermodynamics, Fluid Mechanics, Fluid Power related problems including Hydraulic and Pneumatic systems. By attending the practical sessions and conducting experiments in this lab, the students will learn and understand principles of Thermodynamics, Fluid Mechanics with applications including Hydraulic and Pneumatic systems. Topics include fluid properties, flow types, conservation of energy, flow through pipes, standard symbols, components and control of hydraulic and pneumatic systems.

Heat Transfer Lab

(Lab Director: Engr. Najam ul Hasan)

Heat transfer works at the core of all processes. Its applications range from tiny electronic circuits to large scale industrial plants. The newly developed Heat Transfer lab consists of state of the art apparatuses to demonstrate basic concepts of conduction, convection and radiation as well as their applications including heat exchangers and solar thermal systems.

Courses of Study for Undergraduate Program
BSc Mechatronics Engineering

1st Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
GS-111	Calculus and Analytic Geometry	3	0
HS-112	Communication Skills	3	1
GS-113	Applied Physics	3	0
MT-114	Workshop Practice	0	1
ET-115	Electric Circuits and Network Analysis	3	1
HS-116	Islamic Studies	2	0
	Total	**14**	**3**
	Semester Total for Part-I & II	**17**	

2nd Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
GS-121	ODEs and Linear Algebra	3	0
MT-122	Engineering Statics	2	1
MT-123	Engineering Drawing and CAD	0	2
CS-124	Computer Programming - I	1	1
HS-125	Technical Report Writing	3	0
HS-126	Pakistan Studies	2	0
	Total	**11**	**4**
	Semester Total for Part-I & II	**15**	
	Total for 1st Year	**32**	

3rd Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
GS-211	Vector Calculus	3	0
ET-212	Electronic Devices and Circuits	2	1
MT-213	Engineering Dynamics	2	1
MT-214	Materials and Manufacturing Processes	3	0
CS-215	Computer Programming-II	0	1
CS-216	Digital Logic Design	2	1
	Total	**12**	**4**
	Semester Total for Part-I & II	**16**	

4th Semester			
Course No.	**Course Title**	**Credit Hours**	
		Part I	**Part II**
GS-221	Complex Variables and Transforms	3	0
ET-222	Electronic Circuit Design	3	1
HS-223	Social Sciences Elective	3	0
MT-224	Mechanics of Materials	2	1
MT-225	Thermodynamics	2	1
MT-226	Electromechanical Systems	3	1
	Total	**16**	**4**
	Semester Total for Part-I & II	**20**	
	Total for 2nd year	**36**	

5th Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
GS-311	Numerical Methods	2	1
MT-312	Microcontroller Based Design	2	2
MT-313	Theory of Machines	2	1
MT-314	Fluid Mechanics, Hydraulics and Pneumatics	3	1
MT-315	Transducers and Instrumentation	3	1
MT-316	Mechanical Vibrations	2	0
	Total	**14**	**6**
	Semester Total for Part-I & II	**20**	

6th Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
GS-321	Probability and Statistics	3	0
MT-322	Control Systems	3	1
MT-323	Mechatronics System Design	2	2
MT-324	Design of Machine Elements and CAD/CAM	2	1
ET-325	Power Electronics	3	1
MS-326	Engineering Economics	2	0
	Total	**15**	**5**
	Semester Total for Part-I & II	**20**	
	Total for 3rd year	**40**	

7th Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
MT-411	Robotics	3	1
MT-412	Industrial Automation	2	1
MT-413	Engineering Elective-I	3	1
MS-414	Management Sciences Elective	3	0
MT-415-A	Mechatronics Engineering Project	0	3
	Total	**11**	**6**
	Semester Total for Part-I & II	**17**	

8th Semester

Course No.	Course Title	Credit Hours	
		Part I	Part II
MT-421	Heat Transfer	2	1
MT-422	Engineering Elective-II	3	1
MT-415-B	Mechatronics Engineering Project	0	3
	Total	**5**	**5**
	Semester Total	**10**	
	Total Courses	**43**	
	Total Credit Hours	**135**	

List of Elective Courses

Social Sciences Elective (3+0)

- Professional Ethics
- Sociology and Development
- Organizational Behaviour
- Or any other relevant course (s)

Management Sciences Elective (3+0)

- Engineering Management
- Entrepreneurship, Leadership and Team Management
- Principles of Management
- Research Methodology
- Production Management
- Or any other relevant course (s)

Engineering Electives-I (3+1)

- Modeling and Simulation
- Filter Design and Digital Signal Processing
- Artificial Intelligence
- Embedded Systems
- Or any other relevant course (s)

Engineering Electives-II (3+1)

- Machine Vision
- Digital Control
- Advanced Control Systems
- Neuro-Fuzzy Control
- Special Topics in Mechatronics
- Machine Learning
- Digital Image Processing
- Or any other relevant course (s)

TENTITIVE ADMISSION SCHEDULE FOR UNDERGRADUATE ADMISSION–ENTRY 2016 40

Internet submission of Entry Test Form	13-June-2016
Entry Test (centralized)	17-July-2016
Availability of Undergraduate Prospectus + Admission Form	For updated admission schedule please visit admissions.uettaxila.edu.pk
Last Date of Submission of Admission Form	
Hifz-e-Quran Test	
1st Merit List on the website	
Last Date of Depositing Dues and Original Documents for 1st Merit List	
2nd Merit List on the website	
Last Date of Depositing Dues and Original Documents for 2nd Merit List	
3rd Merit List on the website	
Last Date of Depositing Dues and Original Documents for 3rd Merit List	
Issuance of Registration No. to admitted students	
Start of 1st Semester Classes	
Admission Closed	

Important Note:

- No application shall be entertained after the last date.
- The selected candidates in a merit list must join the University within specified time limit as per requiremnets laid down under clause 37. If they fail to do so, their names would be excluded from any future merit lists and their admission would be cancelled.
- No call letters shall be posted to selected candidates.
- The detailed lists can be viewed at the official website of the university at: **admissions.uettaxila.edu.pk**
- The display of metit lists shall continue till the admission is closed. So keep visiting the University Web site for further merit lists (if any).

ADMISSION COMMITTEE UNDERGRADUATE- ENTRY 2016 41

Engr. Muhammad Kashif Iqbal (Convener Admission Committee)	051-9047412

Members

Engr. Mansoor A. Baluch (Registrar)	051-9047406
Lt. Col. (R) Syed Muhammad Ali (Treasurer)	051-9047414
Dr. Khalid Bashir Bajwa , Asstt. Professor , CPED	051-9047575
Dr. Nadeem Majeed Choudhary, Asstt. Professor , SED	051-9047740
Dr. Malik Intisar Ali Sajjad , Asstt. Professor, EED	051-9047548
Engr. Rasikh Habib, Lecturer, Environmental Engg.	051-9047809
Engr. Ulfat Hussain, Web Manager, NARC	051-9047466

Admission Office Staff

Mr. Muhammad Asghar Mehmood	
Mr. Abdul Waheed	
Mr. Waqas Mehmood	051-9047412
Mr. Usman Khalid Qureshi	
Hafiz Muhammad Shahid	


14th CONVOCA

42. IMPORTANT NOTICE: ADMISSION POLICY

ADMISSION SCHEDULE

For updated admission schedule please keep visiting

"admissions.uettaxila.edu.pk"

ELIGIBILITY FOR ADMISSION

The candidate should have obtained at least 60% unadjusted marks in examination on the basis of which he seeks admission. Marks of NCC and Hifz-e-Quran, where applicable, shall be added only for determination of merit and not towards eligibility. Rounding off percentage figure to make it 60% will not be considered towards eligiblity.

"Approved in the 30/2016 meeting of the Academic Council held on 13/6/2016 and 43/2016 meeting of the Syndicate held on 01/7/2016"

PREFERENCE TABLE

Only one F-I is required for all disciplines of Main Campus Taxila and Sub Camups Chakwal. The applicant should precisely and carefully fill the preferences table. The order of preferences once given shall be final and cannot be changed subsequently, after the submission of Application Form in Admission Office.

FORFEITURE OF RIGHT FOR ADMISSION

A selectee who fails to fulfill the requirements laid down in 37.1 and 37.2 within the prescribed time limit shall forfeit his right of admission and will not be considered in subsequent merit lists.

TRANSFER ON THE BASIS OF GIVEN PREFERENCES AND MERIT

In case a seat in any Discipline/ Category of higher preference given by a candidate falls vacant and he is eligible for transfer to that Discipline/Category on the basis of his merit, he shall be automatically transferred to that Discipline/Category. He will have no right to retain his admission in the previous Discipline/Category because the seat vacated by him shall be simultaneously allotted to the next eligible candidate on merit.

FREEZING IN ANY GIVEN DISCIPLINE AND CATEGORY

If an applicant requests in writing to retain the discipline and category in which he has been selected for admission on merit, then he will not have any right to claim his admission in any other discipline and category of higher or lower merit if a seat falls vacant in any discipline. Applicant desiring to freeze category /discipline must have to apply in person on the prescribed form for this purpose before the next merit list is displayed.

UNIVERSITY OF ENGINEERING AND TECHNOLOGY TAXILA, PAKISTAN

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