UNIVERSITY OF
ENGINEERING AND
TECHNOLOGY, PESHAWAR

ENGINEERING
A PROMISING
FUTURE

POSTGRADUATE
PROSPECTUS

2025-26

www.uetpeshawar.edu.pk

POSTGRADUATE

PROSPECTUS 2025-26

Vision

To be among the top ranking universities of the world through Education, Research and Innovation

Mission

To produce highly qualified, well-rounded professionals through education who play a leading role in the society by powering and driving knowledge-based economy and offer research services and innovation for sustainable development

Message from the

CHANCELLOR

CHIEF MINISTER

It is with great enthusiasm that we welcome you to the University of Engineering and Technology (UET) Peshawar. UET Peshawar is a hub of innovation and home to the brilliant minds who have emerged as leaders in their respective fields. UET Peshawar has established itself as a prestigious institution, nurturing the best and brightest students from Khyber Pakhtunkhwa and beyond.

Having a strong base of state-of-the-art centers of excellence dedicated to emerging fields such as Artificial Intelligence, Robotics, Renewable Energy, Earthquake Engineering, Gemology and more, the university continues to lead in both degree programs and groundbreaking research that is transforming industries and society.

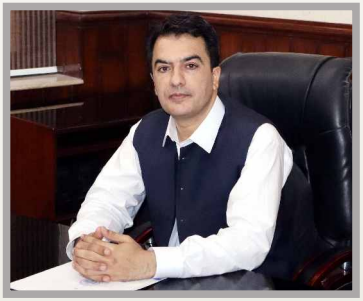
Your admission to UET Peshawar is a testament to your hard work, commitment and the support of your parents. Getting admission to such an esteemed institution, renowned for its academic excellence and leadership in addressing societal challenges, is a remarkable achievement. The Government of Khyber Pakhtunkhwa is fully committed to providing you with the resources and support needed to ensure a comfortable and conducive study environment. I assure you that you will receive these services without compromise, under the guidance of experienced and capable leadership.

In a rapidly changing global landscape, I am confident that UET Peshawar is at the forefront, offering new Postgraduate programs in multiple fields such as Software Engineering, Artificial Intelligence, Data Science , and Cyber Security. Keeping pace with advancements in technology as well as gaining core engineering knowledge is essential for you as engineering students. We are dedicated to supporting your academic journey by continuously introducing cutting-edge fields of study.

As you embark on this exciting journey, I would advise everyone of you to empower yourself by gaining knowledge and skills and make meaningful contributions to society. We are excited to see you grow, excel, and lead in your chosen fields. Welcome once again to UET Peshawar, where your future begins.

Ali Amin Khan Gandapur
Chief Minister, Khyber Pakhtunkhwa

Message from the **Vice Chancellor**



Welcome to the University of Engineering and Technology, Peshawar, a leading university in Khyber Pakhtunkhwa delivering quality engineering education for decades. Ranked by the Times Higher Education among the top universities in Asia and the world, we uphold the highest standards in research and academics. We have strong connections with industries, and research and development firms, offering internships, final year projects and scholarships. To make quality engineering education accessible at the door steps, we already have well-built campuses in Abbottabad, Bannu and Jalozai besides Peshawar Campus.

At UET Peshawar, you will study in a multicultural environment guided by renowned faculty, conduct research in state-of-the-art laboratories, and collaborate with students from across the world. Our programs, particularly in Artificial Intelligence, Cyber Security, Computing & AI, Software Engineering, Computer Science, Data Science, Architecture and Interior Design are aligned with market demands. We provide support for international students throughout their academic journey from admissions to housing, and research opportunities.

For decades, UET Peshawar has been a trusted name in engineering and technological education in Khyber Pakhtunkhwa. We are committed to nurturing responsible, skilled, and globally competitive graduates. With rankings from the Times Higher Education, industry partnerships, and access to financial aid and scholarships, we ensure that quality education remains accessible and purposeful for every student. Let me assure you, when your child joins UET Peshawar, they don't just earn a degree; they build a future.

UET Peshawar offer a wide array of Postgraduate degree programs with specializations in relevant fields. Our centers of excellence in energy, artificial intelligence, National Center for Robotics and Automation, National Center for Big Data & Cloud Computing (NCBC) and earthquake engineering provide the ideal environment for impactful research through hands-on research and training. UET Peshawar maintains strong links to industry, government, and international academia and our scholars benefit from collaborative projects and funding opportunities at national level and globally.

We welcome you with passion for learning, problem-solving and impact. You will find generous opportunities as part of this fraternity. Take the next step in your academic journey; join UET Peshawar's vibrant academic community.

Prof. Dr. Sadiq Khattak
Vice Chancellor

CONTACT US

UET Peshawar strives to provide admission related information to potential students. The following departments respond to various queries regarding selection of academic disciplines, admission schedule and important admissions announcements.

Directorate of Postgraduate Studies

The Directorate of Postgraduate Studies (DPGS) deals with admissions of postgraduate students in coordination with Directorate of Admissions. The Directorate also looks after the processing of postgraduate Programs and enforcement of regulations approved by the Academic Council and Syndicate.

Contact: (+92-91) 9222151, **Email:** dpgs@uetpeshawar.edu.pk

Directorate of Admissions

The Directorate of Admissions is responsible for student admissions; provides specific and general information to prospective students round the year.

Contact: (+92-91) 9216784, **E-mail:** admission@uetpeshawar.edu.pk

website: www.enggentrancetest.pk

Directorate of Media and Publications

The Directorate of Media and Publications is responsible for media activities and in-house publications. It runs an extensive admission publicity campaign; circulates admission schedules, important information, announcements, news releases and advertisements.

Contact: (+92-91) 9222147, **E-mail:** dirmedia@uetpeshawar.edu.pk

Campus Management Solutions (CMS) / IT Center

UET Peshawar with its core mandate to provide "quality education" is on a continuous path to bring new technologies in the academic processes. In 2006, UET Peshawar under the auspices of HEC took an initiative and established an advanced network infrastructure through the Campus Management Solutions (CMS) software services. The CMS, a web-based portal was officially launched in 2008 at UET Peshawar with an aim to provide faculty/staff and the students with immediate access to real-time information that helps to streamline the processes, reduce manual handling and building a database that effectively manages student accounts. In 2012, CMS was transformed into Information Technology Center by adding a wide spectrum of services to its domain. These services are offered across the campus which include CMS software services; providing 24/7 internet services on campus and hostels; official email services; VPN to access HEC Digital Library for the students and faculty/staff; video conferencing; issuance of Microsoft licensed softwares to the departments; managing the official website: **www.uetpeshawar.edu.pk** with the latest information on academic and research programs, and IT Help Desk Support. The University also started the Smart Campus (Eduroam), a world-wide education roaming service in 2019 which has further enhanced the internet connectivity for the students and faculty/staff across campus. Over the years, the integration of information technology into academic and administrative processes has completely transformed the learning environment and student lifestyle on campus. **Contact:** (+92-91) 9222141, **Email:** cmshelp@uetpeshawar.edu.pk

Student Services Center

The Student Services Center (SSC) was established to proactively and positively facilitate undergraduate and graduate students, as well as alumni, within a specific period. The SSC ensures the best service delivery and affective support to improve efficiency and address student matters related to campus management solutions, academics, accounts, examination, clearance and scholarships. The departmental Student Facilitation Centers are closely linked with the SSC.

CENTERS OF EXCELLENCE

National Institute of Urban Infrastructure Planning

National Institute of Urban Infrastructure Planning (NIUIP), established in 2008 with HEC funding, is committed to promote sustainable urban development in Pakistan, and apply research in combating challenges facing rapidly growing urban centers in the country. NIUIP is offering teaching, research and training opportunities in urban infrastructure planning in Pakistan to Master's and Doctoral level students with hands-on opportunities for research in an applied and problem-solving environment. The institute is actively engaged in fostering national and international strategic partnerships for collaborative research in urban planning and management.

Gems and Jewelry Center of Excellence

The Gems and Jewelry Center of Excellence (GJCoE) is a specialized facility dedicated to advancing skills and knowledge in gemology, lapidary, and jewelry design. Equipped with state-of-the-art laboratories and modern training equipment, the Center provides hands-on learning and applied research opportunities in gem cutting, polishing, and jewelry-making. The Center offers a five-month diploma program in Gemology, Lapidary, and Jewelry, led by a team of qualified teaching faculty and industry experts. Since its establishment, GJCoE has successfully trained and graduated more than 1100 students, many of whom have established their own ventures and contribute to the growth of Pakistan's gems and jewelry sector. By integrating technical expertise, entrepreneurship, and industry linkages, GJCoE continues to play a vital role in developing skilled human resources for the national and regional gems and jewelry industry.

Earthquake Engineering Center

The Earthquake Engineering Center (EEC) established with the HEC's funding is a multi-disciplinary research and education hub established with the mission to reduce seismic disaster risk in the province and across Pakistan. Since its inception, the Center has made remarkable progress in the fields of earthquake engineering, seismic risk assessment, and disaster resilience. It has established strong research collaborations with internationally renowned organizations, universities, and research institutes, contributing to capacity building, human resource development, and advanced research in earthquake engineering. EEC's activities span across research & development in structural and geo-technical earthquake engineering, capacity building professionals to promote earthquake-resistant design and construction practices, collaborations with national and international stakeholders for developing resilient infrastructure and safer communities. Through its continued efforts, the EEC plays a leading role in strengthening Pakistan's capacity to mitigate and manage seismic hazards.

National Center for Robotics and Automation

The National Center for Robotics and Automation (NCRA) has a lab at UET Peshawar called the Advanced Robotics and Automation Lab (ARAL). It is part of a national consortium of eleven university labs focussed on robotics research and development. The lab was established in 2018 at the

Department of Mechatronics Engineering at (UET) Peshawar. ARAL is mandated to address pressing national challenges in the domains of agricultural technology, industrial productivity, and healthcare innovation. The lab's research primarily focuses on Precision Agriculture – development of automated and intelligent systems for efficient farming practices, crop monitoring, and yield optimization. industrial automation – design and deployment of advanced robotic and control systems to enhance manufacturing efficiency and productivity and biomedical devices, aimed at improving healthcare delivery and patient outcomes. In addition to applied research, ARAL emphasizes prototype development, interdisciplinary collaboration, and capacity building to translate robotics and automation solutions into practical, scalable applications.

National Center for Big Data & Cloud Computing

The vision of National Center for Big Data & Cloud Computing (NCBC) is to effectively utilize cloud computing for Big Data applications for solution to problems of national importance. Keeping in view the advantages of cloud computing in provisioning and processing of big data and its suitability for the emerging trend in mobile devices and Pakistani R&D environment having limited hardware resources, the utility of the cloud computing is plausible. NCBC is focussed on conducting research and finding indigenous solutions of problems related to national importance. NCBC's research areas include multimedia streaming and analytics, remote sensing, big data analytics, traffic characterization and analytics, and cloud integration and analytics for mass data platform.

National Center for Cyber Security

The National Center for Cyber Security (NCCS) established in 2018 is a leading hub center dedicated to addressing Pakistan's cyber security challenges. With its three specialized labs: Security Testing, IoT Security, and block chain security, the Center focuses on developing advanced solutions for securing web applications, enhancing IoT device protection, and utilizing block chain technology for secure application development. NCCS has made significant contributions through its cutting-edge research, development of innovative security tools, and the training of skilled cyber security professionals. As an Accredited Training Centre (ATC) of the globally recognized EC-Council, it provides international certifications such as, CEH and CHFI, preparing the next generation of cyber security experts to meet industry demands. NCCS collaborates with both public and private sectors, fostering strong industry-academia partnerships to ensure its research addresses real-world security problems. The center leads efforts in strengthening human resource by offering BS Cyber Security degree program and offering specialization in Cyber Security at Master's level.

Center of Intelligence Systems and Network Research

The Center for Intelligent Systems and Networks Research (CISNR) is among the pioneering research centers of UET Peshawar for solving indigenous problems of the country utilizing AI and ICT technologies. CISNR was established back in March 2012 with funding from the Ministry of

IT & Telecom. The journey started with a small group of Engineers, Computer Scientists and AI researchers which has now transformed into a huge family of 80 individuals. The spectrum of the Centre has expanded to the fields of energy, water, disaster management, climate change, smart climate agriculture, health and safe city; thus covering 10 SDGs. It's a registered public consultancy, providing not only technical recommendations but also hard-coded solutions for the local industry. With the mission to provide smart, secure, and innovative solutions that pave the way for a prosperous society while ensuring gender inclusiveness, CISNR specializes in technological and social development sectors, offering global expertise applied locally. From analysis to implementation, overarching goal is to provide intelligent solutions that harmonize safety, economic growth, and environmental considerations through precise data acquisition and technology. The Center focuses on fostering national AI and IoT capacity, empowering innovators, and conducting research in various AI & IoT fields to prevent or minimize disasters using data intelligence. With expertise spanning Smart Grid, Smart Metering, Intelligent System Design, Electrical Communication Systems, Multi-Core Processing, Energy/Utility Management, Artificial Intelligence, IoT, and Cloud Computing, CISNR stands as the sole nationwide institution in both AI, IoT and AIoT.

National Center for Artificial Intelligence

National Center of Artificial Intelligence (NCAI) was inaugurated at NUST in 2018. NCAI is the latest technological initiative of Government of Pakistan under the government's Vision 2025 where leading universities are its partners. In pursuance, the Center of Artificial Intelligence at UET Peshawar was established in 2019. It was also designed to act as a hub of innovation, scientific research, knowledge transfer to the local economy, and training in the area of Artificial Intelligence (AI) and its closely affiliated fields. The central aim is to facilitate the researchers in the field of AI; help them establish and grow AI industry following international trends and seek solutions to the indigenous problems through AI.

US-Pakistan Center of Advanced Studies in Energy

The US-Pakistan Center of Advanced Studies in Energy (USPCAS-E), funded by USAID is designed to support Pakistan's economic development by strengthening the relevance and responsiveness of university products, including applied and policy research and skilled graduates, to the needs of the public and private sector. the Center is proceeding efficiently towards the achievements of its goals through improving governance, innovative research and curriculum reforms. As a pivotal and comprehensive research center, USPCAS-E UET Peshawar realizes the responsibility for finding sustainable solutions to the energy crisis in Pakistan.

TABLE OF CONTENTS

THE UNIVERSITY

UET Peshawar is a premier institution of higher learning in the field of engineering sciences in Khyber Pakhtunkhwa. Started as a College in 1952 and University in 1980, it boasts twenty nine engineering and non-engineering departments through four faculties (Faculty of Electrical and Computer Engineering, Faculty of Civil, Agricultural and Mining Engineering, Faculty of Mechanical, Chemical and Industrial Engineering and Faculty of Architecture, Allied Sciences and Humanities) covering an entire spectrum of engineering and non-engineering disciplines at undergraduate and postgraduate degree programs offered in its three campuses i.e. Abbottabad, Jalozai and Bannu Campus.

With producing more than 2000 graduates every year, UET Peshawar has been treading on a continuous path to achieve its goal with a stronger and more efficient infrastructure and qualified Ph.D. faculty. Currently more than 8,500 students are enrolled in various disciplines of undergraduate and postgraduate levels.

The Centers of Excellence at UET Peshawar are recognized for high impact research in various fields of engineering and teaching excellence in Pakistan. Excellence in teaching is a cornerstone of the UET experience and is based on Outcome Based Education system that emphasizes the achievement of student outcome thus brings it at par with international standards.

PESHAWAR CAMPUS

The Peshawar Campus houses twenty nine academic departments, offering a wide range of undergraduate and postgraduate programs in engineering and non-engineering disciplines. All engineering academic programs are accredited under the Outcome-Based Education (OBE) system and internationally recognized through the Washington Accord, ensuring global acceptability of its degrees. With a strength of over 200 Ph.D. qualified faculty members, UET Peshawar places a strong emphasis on quality teaching and research-driven learning. The campus features modern classrooms and state-of-the-art laboratories, offering a dynamic and supportive environment that fosters academic excellence and practical, hands-on training to the students. The Peshawar Campus also hosts several Centers of Excellence including the U.S.-Pakistan Center for Advanced Studies in Energy (USPCAS-E), National Institute of Urban Infrastructure Planning (NIUIP), Center for Intelligent Systems and Networks Research (CISNR), Earthquake Engineering Center, Center for Robotics and Automation, and Gems and Jewelry Center of Excellence. These centers serve as hubs for cutting-edge research, certifications, industrial collaborations and innovation that addresses critical real-world challenges in relevant fields.

SATELLITE CAMPUSES

Abbottabad Campus

The Abbottabad Campus of UET Peshawar, established in October 2002, is located in the scenic and educationally vibrant city of Abbottabad. The campus currently offers undergraduate programs in Electronic Engineering, Architecture, Computer Science, and Software Engineering, along with MS programs in the Departments of Architecture and Electronic Engineering, serving over 450 students. Expansion plans are in progress to introduce new programs in Electrical Engineering, Civil Engineering, and Urban & Regional Planning. On-campus hostel facilities include Sarban Hall Boys Hostel, Jalal Baba Boys Hostel , and Fatima Jinnah Girls Hostel, with an additional boys hostel under construction—all located within the secure boundaries of the campus. UET Abbottabad Campus continues to grow as a hub of academic excellence in engineering, architecture, and technology.

Bannu Campus

Bannu Campus became operational in May 2002, in the premises of the Comprehensive High School in the city. This has brought higher education in engineering sciences to this neglected middle-southern region. Prior to this, students would go to Dera Ismail Khan, Kohat or Peshawar to pursue their higher studies.

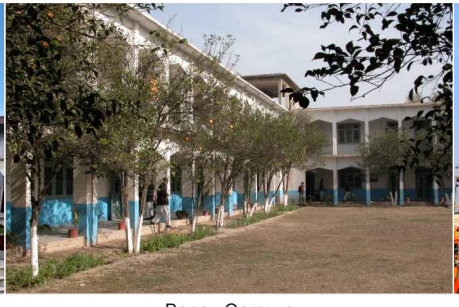
Currently, two traditional disciplines in engineering are offered and efforts are afoot to consolidate these Programs. Large investment in strengthening laboratories, and upgrading infrastructure are being done to quickly bring this campus at par with others.

Jalozai Campus

The Jalozai Campus funded by HEC at the cost of Rs. 6,565.272 Million is established on Pabbi-Cherat Road at 11km Southwards from GT Road in Nowshera. Total area of the campus is 402 acres and the total covered area is approximately 23.44 acres. with live-in strength of 1700 students in five departments. The Campus includes academic blocks, central facilities, amenities, sports & recreational facilities, hostels, staff residences together with all necessary infrastructure facilities.

Having the services of all Ph.D faculty, Jalozai Campus offers education in various engineering disciplines including Civil Engineering, Electrical Engineering, Mechanical Engineering, Industrial Engineering and Computer Science.

Abbottabad Campus


Bannu Campus


Jalozai Campus

FACULTY OF
CIVIL, AGRICULTURAL AND MINING ENGINEERING

MESSAGE FROM THE DEAN

Welcome to the Faculty of Civil, Agricultural and Mining Engineering.

It is a matter of great pride to welcome the brightest of our youth to the Faculty of Civil, Agricultural, and Mining Engineering at UET Peshawar. A professional and specialized education has become essential for future success in today's competitive and globalised world. Our faculty is dedicated to providing practical, knowledge-based academic excellence in these fields.

Our graduates have made countless contributions to various economic and social sectors, demonstrating their leadership and commitment to society. This reflects the quality of teaching by our highly qualified and experienced faculty members, who bring practical, experience-based knowledge to their classrooms. As experts in their fields, the research conducted by our faculty members continues to drive positive change across the region.

We constantly strive to enhance our programs to remain at the forefront of higher education trends. The PEC (Pakistan Engineering Council) accreditations ensure we maintain high academic standards. Each student here has a bright future, equipped with the skills necessary to meet the demands of private, public, and international organizations. The classrooms, well-equipped laboratories, and libraries are all focused on preparing you to successfully navigate the challenges of the modern world.

With this message, I welcome you and wish you an enjoyable and intellectually satisfying journey with us.

Prof. Dr. Bashir Alam
Dean, Faculty of Civil, Agricultural
and Mining Engineering

Department of

Civil Engineering

(Peshawar Campus)

Civil engineers plan, design, supervise the construction of and maintain many of the facilities and systems that are essential to modern life in both the public and private sectors. The civil engineering profession is one of the most stable and most diverse of the engineering disciplines. Civil engineers today are designing methods and facilities to cope with many of our planet's most serious problems. In the face of foul air; decaying cities; roadways, and bridges; clogged airports and highways; polluted streams, rivers and lakes, the civil engineer is being called on to design solutions that are workable and cost-effective.

Civil Engineering Department (CED) was established in 1953-54. CED was the first one to introduce postgraduate studies with specialization in Water Resources and Structural Engineering in 1984-85. CED has the honor to be the first among all departments to start the Ph.D. Program in 2000. The ever-evolving PG (Post Graduate) Program of CED aims towards inculcating leadership skills, a strong sense of professionalism and ethical responsibility in the students and prepares them to recognize the need to engage in life long learning.

The students can select a Program that enhances their ability to work as professional engineers in a local/global economy by pursuing a Master's of Science degree with a thesis that represents independent work, or Master's degree with course work focuses on training of Civil Engineering practice in design and construction. Ph.D. Program requires training through course work, research and participation in seminars, conferences, workshops etc. Thus, original contribution to knowledge through Ph.D. research ensures a career in research academia or consultancy.

Chairman

Prof. Dr. Amjad Naseer	Ph.D. (Pak)

Meritorious Professor

Prof. Dr. Qaisar Ali	Ph.D. (Pak)

Professors

Prof. Dr. Irshad Ahmad	Ph.D. (Pak)
Prof. Dr. Amjad Naseer	Ph.D. (Pak)
Prof. Dr. Muhammad Javed	Ph.D. (Pak)
Prof. Dr. Bashir Alam	Ph.D. (USA)
Prof. Dr. Syed Muhammad Ali	Ph.D. (Pak)
Prof. Dr. Rawid Khan	Ph.D. (UK)
Prof. Dr. Khan Shahzada	Ph.D. (Pak)
Prof. Dr. Mohammad Ashraf	Ph.D. (Pak)
Prof. Dr. Yasir Irfan Badrashi	Ph.D. (Pak)

Associate Professors

Dr. Muhammad Fahad	Ph.D (USA)
Dr. Mujahid Khan	Ph.D. (Pak)
Dr. Muhammad Waseem	Ph.D. (Italy)

Assistant Professors

Dr. Mohammad Adil	Ph.D. (UK)
Dr. Haleema Attaullah	Ph.D. (Pak)
Dr. Tabinda Masud	Ph.D. (Pak)
Engr. Faisal ur Rehman	M.Sc. (Pak)
Dr. Mansoor Khan	Ph.D. (Pak)
Dr. M. Adeel Arshad	Ph.D. (Pak)
Dr. Shahid Ullah	Ph.D. (Germany)
Dr. Qazi Samiullah	Ph.D. (France)
Dr. Muhammad Safdar	Ph.D. (Canada)
Dr. Ateeq Ur Rauf	Ph.D. (Pak)

Lecturers

Dr. Alamgir Khalil	Ph.D. (Thailand)
Dr. Muhammad Fahim	Ph.D (USA)
Dr. Sikandar Hayat Sajid	Ph.D (Canada)
Engr. Arsalaan Khan	M.Sc. (Pak)
Engr. Hizbullah Sajid	M.Sc. (Pak)
Dr. Muhammad Salman	Ph.D. (Pak)
Engr. Mudassir Iqbal	M.Sc. (Pak)
Dr. Zain ul Abidin	Ph.D. (Pak)

Laboratory Engineers

Engr. Hamna Shakeel	M.Sc. (Pak)
Dr. Irfan Jamil	Ph.D. (Pak)
Engr. Hanif Ullah	M.Sc. (Pak)

RESEARCH PROJECTS AND FACILITIES

In order to facilitate the Postgraduate study CED fulfills all the necessary infrastructural requirements like Research & Development (R&D) and Post Graduate computing center, Postgraduate Library, laboratory facilities such as 16 meter tilting flume, 200 Tons straining frame, 200 Tons computer controlled U.T.M. and a large test frame with latest data acquisition system and computer controlled tri-axial compression machine, etc., have been installed.

CED helps students to gain practical understanding of the concepts and facilitates Postgraduate research work through its various state-of-the-art laboratories such as Concrete Laboratory, Soil Mechanics & Highway Engineering Laboratory, Structural Laboratory, Hydraulics Laboratory, Material Testing Laboratory, Surveying Laboratory and Public Health Laboratory.

The department offers consultancy services, technical assistance, and laboratory facilities to various government, semi-government and private agencies. The laboratories that are used for these commercial testing include Soil Mechanics and Highway Laboratory, Material Testing Laboratory, Concrete Laboratory and Public Health Laboratory. CED extends its advisory and consultancy services for the diversified nature of Civil engineering problems/design faced by commercial sector (e.g. Non-Destructive Testing, Structural Design, Rehabilitation of existing structures etc). Other civil engineering institutions of the country seek help of CED that has improved upon its intellectual and physical resources over a long period of time. The provincial department often hires the design, vetting and forensic services of our department in connection to various infrastructural projects.

AREAS OF SPECIALIZATION

The objective of the specialization Program is to provide quality education that is well balanced in theoretical and practical considerations and to prepare quality human resource keeping in view the national needs and thus aspiring towards making the country self-sufficient in the various fields of study. The postgraduate research Program also requires the students to attend seminars, conferences, symposia and publish papers in the journals of national and international repute. Upon the culmination of the postgraduate degree, graduates of the Postgraduate Program will become contributing engineering professionals and influential leaders in the field. In response to national needs, the Department of Civil Engineering offers Master and Ph.D. degrees in Civil Engineering in the following areas of specialization:

1. Structural Engineering
2. Water-Resources Engineering
3. Environmental Engineering
4. Transportation Engineering
5. Geotechnical Engineering
6. Earthquake Engineering

In addition, the Department of Civil Engineering also offers advisory and consultancy services for the diversified nature in the construction sector.

STRUCTURAL ENGINEERING

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
CE 5110	Advanced Structural Analysis-I*	3
CE 5112	Advanced Mechanics of Materials	3
CE 5114	Behaviour of Concrete Structures	3
CE 5115	Advanced Concrete Design	3
AE 5491	Research Methodology**	3
BSI 5101	Fehm-e-Quran I*** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II*** (for M.Sc./Ph.D. students, 3 contact hours)	1

* CE 5110 is Pre-requisite for CE 5115 and CE 5111 ** Research Methodology is mandatory for Plan-A only *** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
ING 5111	Advanced Structural Analysis-II	3
CE 5133	Foundation Engineering	3
CE 5152	Pre-stressed Concrete Design	3
CE 5153	Advance Steel Structure-I	3
CE 5154	Introduction to Bridge Engineering	3
CE 5155	Finite Element Analysis of Structural Systems	3
CE 5156	Plate and Shell Structures	3
CE-5158	Applications for Structural Dynamics to Earthquake Engineering	3
CE 5159	Design of Masonry Structures	3

CE 5160	Hydropower Engineering	3
CE 5190	Special Topics	3
CE 5192	Advance Concrete Technology	3
EQE 5113	Dynamics of Structures	3
EQE 5157	Earthquake Engineering–I	3
EQE 5163	Computer Applications to Structural Engineering	3
EQE 5166	Seismic Design of Concrete and Masonry Structures	4
EQE 5168	Seismic Design of Bridges	4
EQE 5169	Seismic Design of Dams	4
EQE 5171	Repair and Strengthening of Structures	4
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
CE 5199	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
CE 6199	Ph.D. Thesis	36

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
CE 5120	Fluid Mechanics	3
CE 5121	Open Channel Flow	3
CE 5122	Sediment Transport	3
CE 5125	Surface Water Hydrology	3
AE 5491	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
CE 5123	Hydraulic Structures	3
CE 5124	Dam Engineering	3
CE 5126	Water Resources Engineering & Planning	3
CE 5127	River Mechanics	3
CE 5128	Water Resources Engineering	3
CE 5132	Hydraulics of Ground Water	3
CE 5160	Hydropower Engineering	3
CE 5190	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
CE 5199	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
CE 6199	Ph.D. Thesis	36

GEOTECHNICAL ENGINEERING

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
CE 5130	Advanced Soil Mechanics-I	3
CE 5131	Advanced Soil Mechanics-II	3
CE 5133	Foundation Engineering	3
CE 5134	Engineering Properties of Soil-I	3
AE 5491	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
CE 5124	Dam Engineering	4
CE 5132	Hydraulics of Ground Water	3
CE 5135	Engineering Properties of Soil-II	3
CE 5136	Dynamics of Soil Foundation	3
CE 5189	Geotechnical Aspects of Highway	3
CE 5190	Special topics	3
EQE 5161	Dynamic Soil Structure Interaction*	4
MinE 5525	Advanced Rock Mechanics	3
MinE 5571	Advance Excavation Engineering	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

* EQE 5113 is Pre-requisite for EQE 5161

Master Thesis

Course Code	Course Title	Credit Hours
CE 5199	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
CE 6199	Ph.D. Thesis	36

TRANSPORTATION ENGINEERING

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
CE 5181	Pavement Management and Rehabilitation	3
CE 5182	Advanced Pavement Materials	3
CE 5185	Traffic Engineering and Practice	3
CE 5188	Traffic Impact and safety studies	3
AE 5491	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
CE 5180	Advanced Pavement Design	3
CE 5183	Highways Geometric Design	3
CE 5184	Airport Design	3
CE 5186	Transportation Planning and Modelling	3
CE 5187	Infrastructure Management	3
CE 5189	Geotechnical Aspects of Highway	3
CE 5190	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
CE 5199	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
CE 6199	Ph.D. Thesis	36

ENVIRONMENTAL ENGINEERING

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
CE 5140	Water Supply Engineering	3
CE 5141	Sanitary Engineering	3
CE 5144	Solid Waste Management	3
CE 5150	Environmental Impact Assessment	4
AE 5491	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
CE 5142	Chemistry and Biology of Water and Sewage	3
CE 5143	Public Health Engineering	3
CE 5145	Air Pollution and Control	3
CE 5146	Water Quality Modelling	3
CE 5147	Economics and Planning of Environmental Health Engineering Projects	3
CE 5148	Principles of Water and Wastewater Treatment Processes	4
CE 5149	Industrial Wastewater Pollution Control and Management	3
CE 5151	Environmental Pollution Control	3
CE 5190	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
CE 5199	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
CE 6199	Ph.D. Thesis	36

EARTHQUAKE ENGINEERING

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
EQE 5113	Dynamics of Structures-I	3
EQE 5157	Earthquake Engineering – I*	3
EQE 5160	Engineering Seismology	4
EQE 5166	Seismic Design of Concrete and Masonry Structures	4
AE 5491	Research Methodology**	3
BSI 5101	Fehm-e-Quran I*** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II*** (for M.Sc./Ph.D. students, 3 contact hours)	1

* EQE 5113 is Pre-requisite for EQE 5157 ** Research Methodology is mandatory for Plan-A only *** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
EQE 5171	Repair and Strengthening of Structures	4
EQE 5163	Computer Applications to Structural Engineering	3
EQE 5169	Seismic Design of Dams	4
EQE 5168	Seismic Design of Bridges	4
EQE 5164	Seismic Risk Reduction	4
EQE 5162	Experimental Mechanics of Structures*	4
EQE 5158	Dynamics of Structures-II*	4
EQE 5159	Earthquake Engineering – II**	4
EQE 5161	Dynamic Soil Structure Interaction	4
EQE 5165	Application and Development of Earthquake Codes***	3

*EQE 5113 is Pre-requisite for EQE 5162 & EQE 5159; EQE 5157 is Pre-requisite for EQE 5158; ***CE 5153 is Pre-requisite for EQE 5165

EARTHQUAKE ENGINEERING

Course Code	Course Title	Credit Hours
EQE 5167	Seismic Design of Steel Structures	4
CE 5158	Applications for Structural Dynamics to Earthquake Engineering	3
CE 5152	Pre-stressed Concrete Design	3
EQE 5170	Seismic Design of Life-Line Structures	3
CE 5110	Advanced Structural Analysis-I	3
CE 5112	Advanced Mechanics of Materials	3
CE 5114	Behaviour of Concrete Structures	3
EQE 5190	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
EQE 5199	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
EQE 6199	Ph.D. Thesis	36

National Institute of Urban Infrastructure Planning (NIUIP)

NIUIP was established in December 2010 with Higher Education Commission (HEC) funding. It is committed to promote sustainable urban development in Pakistan, and apply research in combating challenges being faced by rapidly growing urban centers in the country. NIUIP is the first dedicated institute for Urban Infrastructure Planning and Engineering in Pakistan. NIUIP is playing a central role in responding to the challenges of service delivery and infrastructure planning and engineering in key areas such as Water Supply and Sanitation, Waste Management, Land Use and Transportation Systems, Energy and Environment, and GIS Modeling.

NIUIP is equipped with state of the art technologies and equipment such as satellite imagery, simulation modeling for water supply and sewerage systems, Oracle Database software, GPS and remote sensing tools, digital plotters, fully equipped GIS lab with GIS scanners and GIS software, statistical analysis software, and a fully equipped Library.

DIRECTOR

Prof. Dr. Rashid Rehan	Ph.D. (Canada)

PROFESSORS

Prof. Dr. Rashid Rehan	Ph.D. (Canada)
Prof. Dr. Yasir Irfan Badrashi	Ph.D. (Pak)

ASSISTANT PROFESSORS

Dr. Salman Saeed	Ph.D. (Canada)
Dr. Fayaz Ahmad Khan	Ph.D. (UK)
Dr. Akhtar Gul	Ph.D. (Pak)

LECTURER

Dr. Afed Ullah	Ph.D. (China)

OBJECTIVES

- To develop it into a center of excellence for teaching, research, and training in urban infrastructure planning in Pakistan
- To conduct research in emerging trends in urban planning and management
- To identify and disseminate global best practices in urban planning and management
- To develop national and international strategic partnerships for collaborative research
- To train in-service professionals in government and non-government organizations in urban infrastructure planning

PROFESSIONAL AND ADVISORY SERVICES

NIUIP is active in providing advisory and consultancy services on urban infrastructure project planning initiatives in Pakistan. NIUIP is striving to act as a think-tank for important policy making and regulatory issues, and standards for urban planning projects. NIUIP provides services in:

- Master planning of water supply systems
- Master planning of sewerage systems
- Transportation planning
- Best management practices in urban watershed management
- Low cost waste disposal systems
- Environmental issues and regulatory compliance
- Storm water system design
- Condition assessment and asset management of water & sewerage facilities

AREAS OF RESEARCH AND STUDY

In addition to the core courses, students seeking post-graduate degreeat NIUIP (infrastructure engineering degree or infrastructure planning degree) will have the option to select a specialized area of research and study. Accordingly, Optional courses and research thesis can be selected from the following areas of specializations:

- Infrastructure Planning
- Urban & Regional Planning
- Urban Hydrology and Hydraulics
- Land use Planning
- Urban Transportation Planning
- Urban Environment and Energy planning
- Water Supply and Sanitation
- Solid Waste Management
- Spatial Modeling and GIS
- GIS Application to Infrastructure Projects
- Infrastructure Development and Finance
- Infrastructure Utilities Planning & Service Delivery

NIUIP OFFERS

- M.Sc and Ph.D. Degree Programs in:
  - ❖ Urban Infrastructure Engineering
  - ❖ Urban Infrastructure Planning & Management

ELIGIBILITY CRITERIA FOR M.Sc.. URBAN INFRASTRUCTURE ENGINEERING DEGREE Program:

Bachelor's degree in any of the following disciplines:

- Civil Engineering,
- Transportation Engineering
- Water resource Engineering
- Sanitary Engineering
- Environmental Engineering
- Geoinformatics Engineering

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
UIE 5801	Water Supply Systems	3
UIE 5802	Sewerage Systems	3
UIE 5811	Application of GIS/RS for Urban Infrastructure Planning & Management	3
CE 5144	Solid Waste Management	3
ME 5398	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
CE 5117	Engineering Contracts & Tendering Process (Mandatory for Plan-B students)	3
UIE 5807	Urban Watershed Management	3
UIE 5814	Energy and Water Conservation Planning & Management	3
UIE 5818	Water, Sanitation and Hygiene in Emergencies	3
UIE 5805	Intelligent Transportation Systems	3
UIE 5806	Urban Traffic Management	3
UIE 5810	Transportation Planning	3
UIE 5816	Vehicular Traffic Flow Dynamics	3
UIE 5817	Pedestrian Traffic Flow Dynamics	3

UIE 5820	Application of Computational Tools in Research	3
UIE 5804	Computer-Aided Infrastructure Design, Construction & Management	3
UIE 5808	Infrastructure Condition Assessment	3
UIE 5809	Infrastructure Asset Management	3
UIE 5815	Dynamics of Urban Infrastructure Systems	3
UIP 5819	Sustainable Urban Infrastructure Planning & Management	3
UIE 5803	Operation and Maintenance of Bridges and Building Infrastructure	3
UIE 5812	Disaster Preparedness & Management	3
UIP 5824	Quantitative Methods & Statistics in Planning	3
UIE 5819	Advanced Statistics and Data Analysis*	3
UIE 5821	Climate Resilient Infrastructure	3
UIE 5890	Special Topics	3

A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD

* UIP 5824 is pre-requisite for UIE 5819

Master Thesis

Course Code	Course Title	Credit Hours
UIE 5899	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
UIE 6899	Ph.D. Thesis	36

URBAN INFRASTRUCTURE PLANNING & MANAGEMENT

NIUIP also offers master's degree program in Urban Infrastructure Planning and Management, in addition to the M.Sc degree program in Urban Infrastructure Engineering.

The magnitude and dynamics of urbanization place an enormous burden on organizations responsible for the planning and management of urban regions. The core objectives of urban planning and management are seen as understanding dynamic urban processes and developing effective interventions that contribute to the sustainability of urban development.

The M.Sc. degree program in Urban Infrastructure Planning & Management trains the students in the current practices and research in the field of urban planning and management. Major areas of study and research include:

1. Urban and Regional Planning
2. Environmental Laws in Urban Planning
3. Land Use Regulation and Enforcement
4. Census Data Analysis & Policy Making
5. Urban Housing
6. Urban Economics & Real Estate Markets
7. Sustainable Urban Infrastructure Planning & Management
8. Infrastructure Utilities Planning
9. Urban Development & Design
10. Financing of Infrastructure Projects

ELIGIBILITY CRITERIA FOR M.SC URBAN INFRASTRUCTURE PLANNING & MANAGEMENT DEGREE PROGRAM:

Undergraduate degrees (04 years Bachelors i.e. total of 16 years education) or postgraduate degrees (02 years masters i.e. total of 16 years education) in fields of:

- Architecture
- Town planning
- Urban and regional planning
- Environmental sciences
- Geography

In addition to above mentioned fields the students having Bachelor Degree in any of the following engineering fields are also eligible for M.Sc Urban Infrastructure Planning & Management Degree Program:

- Civil Engineering
- Transportation Engineering
- Water Resources Engineering
- Sanitary Engineering
- Environmental Engineering
- Geoinformatics Engineering
- Agricultural Engineering
- Industrial Engineering
- Engineering Management

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
UIP 5817	Urban Housing	3
UIP 5819	Sustainable Urban Infrastructure Planning & Management	3
UIE 5811	Application of GIS/RS for Urban Infrastructure Planning & Management	3
UIP 5826	Utility Financing & Service Delivery	3
ME 5398	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
CE 5117	Engineering Contracts & Tendering Process (Mandatory for Plan-B students)	3
UIP 5815	Land use Regulation & Enforcement	3
UIP 5816	Census Data Analysis & Policy Making	3
UIP 5818	Urban Economics & Real Estate Markets	3
UIP 5820	Infrastructure Utilities Planning	3
UIP 5821	Urban Development & Design	3
UIP 5822	Urban & Regional Planning	3
UIP 5823	Environmental Laws & Policy Making	3
UIP 5824	Quantitative Methods & Statistics in Planning	3

UIP 5825	Financing of Infrastructure Projects	3
UIP 5827	Urbanization and Urban Sprawl	3
UIE 5818	Water, Sanitation and Hygiene in Emergencies	3
UIE 5815	Dynamics of Urban Infrastructure Systems	3
UIE 5812	Disaster Preparedness & Management	3
UIE 5819	Advanced Statistics and Data Analysis*	3
UIE 5821	Climate Resilient Infrastructure	3
UIP 5890	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

* UIP 5824 is pre-requisite for UIE 5819

Master Thesis

Course Code	Course Title	Credit Hours
UIP 5899	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
UIP 6899	Ph.D. Thesis	36

Department of

Agricultural Engineering

(Peshawar Campus)

The Department of Agricultural Engineering was established in 1961 and has the honor of producing the first batch of Agricultural Engineers in Pakistan. Since then it has produced thousands of Postgraduate and postgraduate students. Many of these graduates have worked and still working on key positions in various governmental, semi-governmental, private and international organizations. The Department started its M.Sc. Engineering program in 1990 with emphasis on Soil and Water Engineering. In 1994, another area of specialization was added with emphasis on Farm Machinery and Power Engineering. The Department also started Ph.D. program in these two major areas of Agricultural Engineering in 2004. These postgraduate programs in Agricultural Engineering require completion of advanced course work and a research project by the students to become skilled in research methodology. Our students are expected to plan, conduct and analyze a comprehensive research project, and to report the findings in a thesis, a scholarly document of research conducted in accordance with accepted scientific methodology. They benefit from a diverse applied engineering curriculum and enjoy small class size and frequent one-to-one contact with the faculty.

Agricultural Engineering is the application of engineering knowledge and techniques to agriculture. The constantly expanding population of the world has required and will continue to demand an ever-increasing agricultural production of food and fibers through improved irrigation and drainage systems, farm mechanization, and management of soil and water resources. Agricultural Engineering has been one of the major contributors to the increased production that has been realized during the past century. It is oriented to the design and control of equipment and systems for the production, processing and transportation of food, feed, and fiber, as well as the effective use of natural resources. However, it is not limited to agriculture only but has a broad spectrum of other applications like animal husbandry, fisheries, poultry, dairy industry, food processing industry, and grain and cold storages. Renewable energy, bioenergy and biological engineering are a recent addition to this list. In all of these fields the major portion of investment is engineering in nature. This warrants the recruitment of only qualified agricultural engineers to appropriate positions in these fields as agricultural engineering is the only discipline that integrates relevant knowledge of other inter-related disciplines of engineering and natural sciences into one discipline.

Chairman

Prof. Dr. Zia Ul Haq	Ph.D. (UK)

Professors

Prof. Dr. Zia Ul Haq	Ph.D. (UK)
Prof. Dr. Muhammad Shahzad Khan	D.Engg. (Thailand)
Prof. Dr. Abdul Malik	Ph.D. (Pak)

Associate Professor

Dr. Muhammad Ajmal	Ph.D. (South Korea)

Assistant Professors

Dr. Mahmood Alam Khan	Ph.D. (Pak)
Dr. Khurram Sheraz	Ph.D. (Pak)

Lecturers

Dr. Muhammad Hamed Khan	Ph.D. (Newzealand)
Engr. Sajjad Ahmad	M.Sc. (Pak)
Engr. Nazia Arfeen	M.Sc. (Pak)
Engr. Arshad Ali	M.Sc. (Pak)

RESEARCH PROJECTS AND FACILITIES

Our qualified faculty is actively engaged in research projects/studies. Following faculty projects/studies have been conducted in collaboration with different national and international agencies.

- Development of Sugar Beet Planter for Small Farm holdings in Pakistan and Consumptive use study in Peshawar Valley.
- Revision of standards and specifications for Water Management at Farm level.
- Design and development of sugarcane planter for small and medium landholdings of Pakistan.
- Improving Efficiency of on-farm water use and application.
- Integrated Land and Water Management for Stressed Lands.
- To study the drinking water quality in selected areas of Peshawar.
- To determine the sources of ground water pollution in Peshawar.

AREAS OF SPECIALIZATION

Soil and Water Engineering

The Department is offering specialization in Soil and Water Engineering. Increasing problems with the scarcity and misuse of water supplies call for extensive research and extension efforts. Improved utilization and management technologies of all aspects of water use have to be actively researched. Emphasis is given to the design and evaluation of pressurized irrigation systems and various water harvesting techniques.

Farm Machinery and Power Engineering

Specialization in Farm machinery and Power Engineering is aimed to produce qualified technical manpower in the field of Agricultural Engineering. The role of Agricultural Machinery for the increase and timely production of crops cannot be ignored. Therefore it is important to acquire trained qualified agricultural engineers to handle agricultural machinery problems of modern age. This Program offers research based higher technical education to enable our graduates to apply necessary knowledge and skills to upgrade and modify the use of power and machinery according to the local field conditions of Khyber Pakhtunkhwa.

Interaction with Industry

The Department has a strong research linkages with the following organizations:-

- On Farm Water Management (OFWM)
- National Agricultural Research Council (NARC)
- National Drainage Program (NDP) and International Water Management Institute (IWMI)
- Environmental Protection Agency (EPA)
- Farm Machinery Institute (FMI)
- Pakistan Council for Research in Water Resources (PCRWR)
- Agricultural Processing Industry, Livestock and Poultry Industry

The Department has conducted successful collaborative research Programs with national and international organizations such as PARC/NARC, UGC, EPA, USAID and GTZ.

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
AE 5411	Sprinkle and Trickle Irrigation System	3
AE 5415	Applied Watershed Hydrology	3
AE 5420	Salinity and Soil Water Management	3
AE 5421	Soil and Water Conservation	3
AE 5491	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
AE 5410	Surface Irrigation	3
AE 5413	Design of Canal Structures	3
AE 5414	Irrigation Pumping Plants	3
AE 5416	Soil and Water Pollution	3
AE 5417	Climate Change and Water Resources	3
AE 5418	Statistical Hydrology	3
AE 5419	GIS/RS Applications in Water Resource Management	3
AE 5422	Advanced Soil Physics	3
AE 5423	Modeling Dynamic Exchange of Water and Energy	3
AE 5424	Hydraulics of Sediment Transport	3

Course Code	Course Title	Credit Hours
AE 5425	Hydrologic System Modeling	3
AE 5426	Water Resources Planning and Management	3
AE 5430	Ground Water Hydrology	3
AE 5432	Flow Through Porous Media	3
AE 5441	Sub-Surface Drainage	3
AE 5490	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
AE 5499	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
AE 6499	Ph.D. Thesis	36

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
AE 5451	Advanced Agricultural Machinery Design	3
AE 5453	Instrumentation and Controls in Agricultural Engineering	3
AE 5455	Tractor and Machinery Testing and Evaluation	3
AE 5462	Precision Agriculture and System Management	3
AE 5491	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
AE 5450	Traction Dynamics	3
AE 5452	Kinematics and Dynamics of Machinery	3
AE 5454	Harvesting Machinery	3
AE 5456	Theory of Models-I	3
AE 5457	Theory of Models-II*	3
AE 5458	Computer-Aided-Design	3
AE 5459	Special Problems in Agricultural Engineering	3
AE 5460	Seminar	3
AE 5461	Advances in Farm Machinery and Power Engineering	3
AE 5463	Principles of Ergonomics, Applications and Safety	3

AE 5464	Agro-Energy Audit and Management	3
AE 5490	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

* AE 5456 is pre-requisite for AE 5457

Master Thesis

Course Code	Course Title	Credit Hours
AE 5499	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
AE 6499	Ph.D. Thesis	36

Department of

Mining Engineering

(Peshawar Campus)

The Department of Mining Engineering was established in 1974. It has been offering PostGraduate degree in Mining Engineering since 1991. During the earlier years the department offered research specializations within the mining discipline in rock Mechanics and mineral processing. With the passage of time the faculty of this department obtained higher qualification in their respective fields from abroad. New venues for research were introduced and broad spectrum of research specialization is now being offered in areas of ventilation system in mines, occupational safety and health of workers, mine planning and design and mineral processing. The spectrum of courses has also broadened and now world class curriculum is offered incorporating modern software applications in Mining industry. The faculty has earned its reputation in mining not only on National level but also at International level. Computer applications in mining, advancement in quarrying methods, research in health & safety, application of rock mechanics in tunneling and underground excavations and demand for coal as energy resource have formed a vital base for this development.

A number of professionals, serving in the industry have taken advantage of our M.Sc Program. Our M.Sc Program is specially oriented for professionals working in the industry, therefore the classes are accustomed to the requirements and development of the local mining industry. Over the years the postgraduate students have taken a number of M.Sc projects that have facilitated the industry. The research is applied to enhance the skills and applied knowledge of students who serve the public and private sector mining industry. The department also offers Ph.D. program in core subjects of mining engineering.

Chairman

Prof. Dr. Ishaq Ahmad	Ph.D.(Germany)

Professors

Prof. Dr. Ishaq Ahmad	Ph.D.(Germany)
Prof. Dr. Nisar Mohammad	Ph.D. (Pak)

Assistant Professors

Dr. Salim Raza	Ph.D. (Canada)
Dr. Khan Muhammad	Ph.D. (UK)

Lecturers

Dr. Saira Sherin	Ph.D. (Pak)
Engr. Talat Bilal	M.Sc. (Pak)
Dr. Zahid-ur-Rehman	Ph.D. (Pak)
Dr. Sajjad Hussain	Ph.D. (Pak)

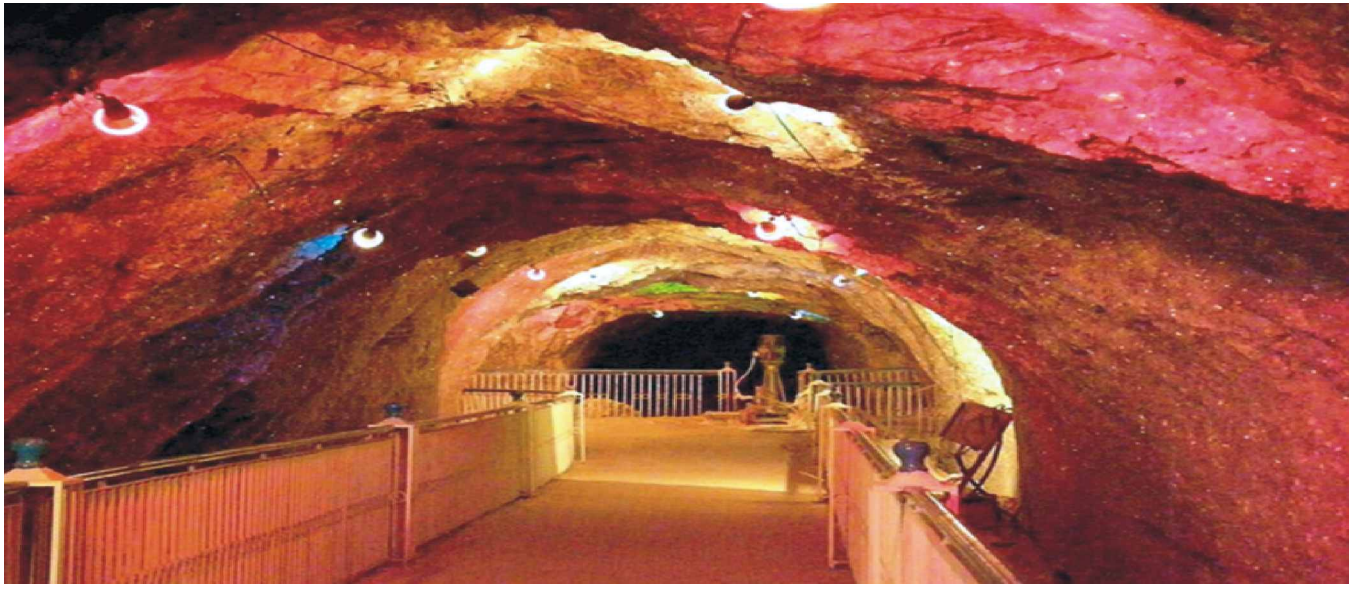
Research projects for economic beneficiation of copper ore deposit of North Waziristan Agency, up-gradation of local coal resources for its use in the cement industry identifying causes and means of control of respiratory diseases in coal mine workers in Khyber Pakhtunkhwa, Block modeling and resource estimation of mineral deposits, rock mechanics applications for solving mining and tunneling problems in Khyber Pakhtunkhwa province have been successfully completed.

RESEARCH PROJECTS AND FACILITIES

The Department is actively involved in various research projects of national importance related to different areas of Mining Engineering.

INTERACTION WITH INDUSTRY

The department has a strong research linkage with Directorate General of Mines and Minerals, Govt. of Khyber Pakhtunkhwa, Pakistan Mineral Development Corporation (PMDC), Pakistan Stone Development Company (PASDEC), Agha Khan Rural Support Program (AKRSP), Chitral,. Pakistan Science Foundation, DG Khan Cement Company Ltd., Kohat Cement Factory, Kohat, Cherat Cement Factory, Nowshera, Marble Mining Organizations in Pakhtunkhwa, FATA Development Authority Livelihood Program, Frontier Works Organization (FWO).



LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
MinE 5515	Advanced Mineral Processing	3
MinE 5535	Computer Application in Mining & Advanced Programming	3
MinE 5565	Rock Mechanics in Mine Design	3
MinE 5511	Loss Control and Safety in Mining	3
MinE 5512	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
MinE 5562	Advanced Surface Mine Design	3
MinE 5525	Advanced Rock Mechanics	3
MinE 5530	Advanced Mine Ventilation Networks and Environment	3
MinE 5581	Dimension Stone Mining	3
MinE 5576	Spatial Data Analysis and Reserve Estimation	3
MinE 5540	Operations Research	3
MinE 5510	Mine Administration and Labour Relations	3
MinE 5513	Applications of Ergonomics to Occupational Safety and Health	3
MinE 5516	Hazardous Waste Management	3
MinE 5517	Environmental Controls in Mining	3
MinE 5520	Coal Preparation	3

MinE 5545	Hydrometallurgy	3
MinE 5550	Mineral Process Design	3
MinE 5551	Fine Particle Science and Processing	3
MinE 5555	Analysis of Deformed Geological Structures	3
MinE 5561	Subsidence Engineering	3
MinE 5563	Mine System Simulation	3
MinE 5564	Surface Coal Mine Design	3
MinE 5560	Underground Mine Design	3
MinE 5570	Rock Slope Engineering	3
MinE 5571	Advance Excavation Engineering	3
MinE 5575	Project Management	3
MinE 5577	Advance Geostatistics	3
MinE 5580	Geochemistry	3
MinE 5582	Mine Environmental Control for Blasting	3
MinE 5590	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

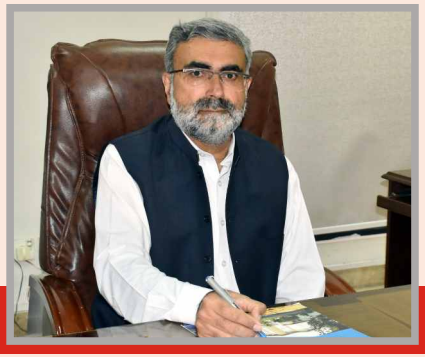
Master Thesis

Course Code	Course Title	Credit Hours
MinE 5599	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
MinE 6599	Ph.D. Thesis	36

FACULTY OF **ELECTRICAL AND COMPUTER ENGINEERING**



MESSAGE FROM THE DEAN

Welcome to the Faculty of Electrical and Computer Engineering (FECE). At FECE, we offer advanced education and research opportunities in fields such as Electrical and Electronic Engineering, Computer Engineering, Computer Science, and Artificial Intelligence. Our postgraduate programs are designed to equip students with the knowledge and cutting-edge skills needed to meet the demands of industry. These programs are accredited by the Higher Education Commission (HEC).

FECE operates across four campuses: the Main Campus in Peshawar, a satellite campus in Jalozai, and remote campuses in Abbottabad and Bannu. We prioritize excellence in education and research through a focus on continuous learning, practical training, and solving real-world challenges.

Our faculty hosts national laboratories in Artificial Intelligence, Cyber Security, and Big Data/Cloud Computing, where applied research leads to innovative solutions for national issues. Our highly qualified faculty members, with strong backgrounds in research and industry collaboration, are dedicated to providing quality education and promoting skills development. Their research spans a range of fields, including Network Technologies, Smart Grids and Intelligent Transportation Systems.

We invite you to join our postgraduate community at FECE, where you will receive top-tier education and gain skills that will set you up for a successful career.

Prof. Dr. Syed Waqar Shah
Dean, Faculty of Electrical and
Computer Engineering

Department of

Electrical Engineering

(Peshawar Campus)

The Department of Electrical Engineering was established in 1952 as part of the Faculty of Engineering and is currently offering postgraduate academic Programs in Electrical Engineering (Communication and Electronics) and Electrical Engineering (Power). The academic Programs at the postgraduate level are designed to provide students with a thorough understanding of basic principles in high-performance communication systems. The work focuses on the provision of secure mixed-media communication systems in a variety of mobile environments. On the other hand, the challenging problems facing the electrical power industry today are greater than ever before. System design trends have moved towards higher power ratings and higher operating voltages. The planning and design of modern power systems call for an increasing number of specialized engineers. These requirements cannot be met by postgraduate courses alone due to the broad range of studies undertaken at this level. Specialization in electrical power engineering is therefore essential to prepare engineers to face these challenges. It is only at the graduate level that an engineer can attain the competency to apply theoretical knowledge to specific problems in the planning, design, and operation of modern electrical power systems. Advancement in Electronics and Communication is also imperative in emerging fields such as the Internet of Things (IoT) and Machine-to-Machine Communication. The Department has adequate, competent facilities available at both educational and professional levels. The postgraduate Programs in electrical engineering have been designed to include coursework in major subjects such as Electrical Power Engineering, Communication and Electronics Engineering with a research thesis to be completed independently by each student. Emphasis is placed on imparting in-depth knowledge and developing research capabilities among students.

Chairman

Prof. Dr. Amjad Ullah	Ph.D. (Pak)

Professors

Prof. Dr. Syed Waqar Shah	Ph.D. (UK)
Prof. Dr. M. Inayatullah Khan Babar	Ph.D. (USA)
Prof. Dr. Haseeb Zafar	Ph.D. (UK)
Prof. Dr. Amjad Ullah	Ph.D. (Pak)
Prof. Dr. Gulzar Ahmad	Ph.D. (Pak)
Prof. Dr. Gul Muhammad Khan	Ph.D. (UK)

Associate Professors

Dr. Tariqullah Jan	Ph.D. (UK)
Dr. M. Irfan Khattak	Ph.D. (UK)
Dr. S.M Majid Ashraf	Ph.D. (Pak)
Dr. Shahid Bashir	Ph.D. (UK)
Dr. Sadiq Ali	Ph.D. (Spain)

Assistant Professors

Dr. M. Iftikhar Khan	Ph.D. (Pak)

Lecturers

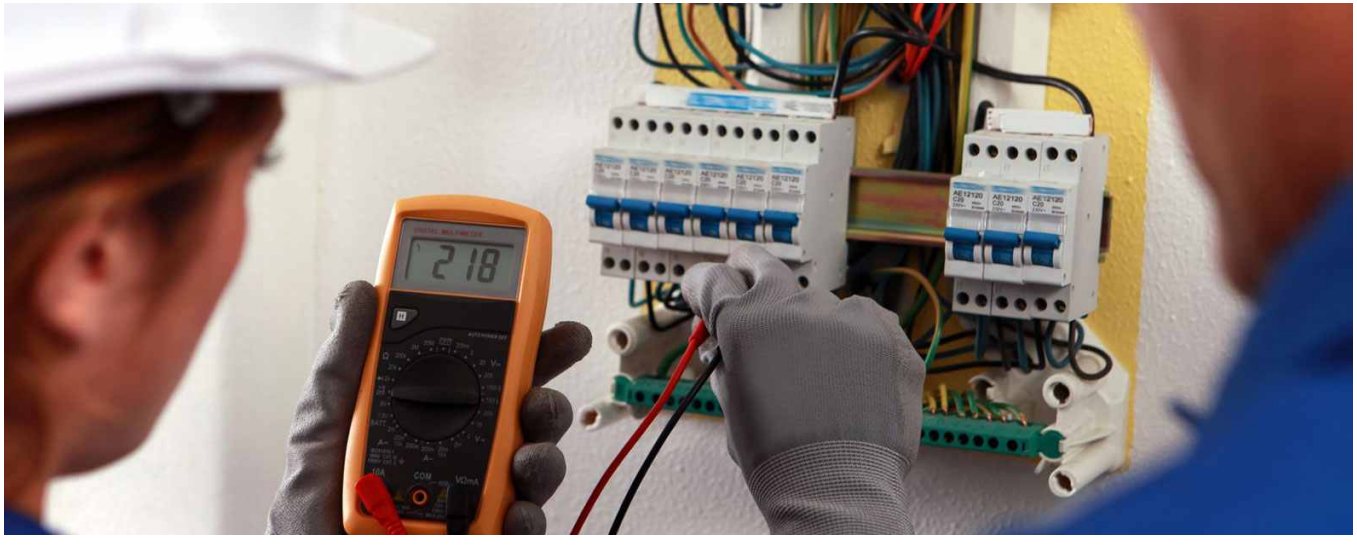
Dr. Muhammad Amir	Ph.D. (Pak)
Dr. Faheem Ali	Ph.D. (Pak)
Dr. Ruhul Amin Khalil	Ph.D. (Pak)
Dr. Seema Mir Akbar	Ph.D. (Pak)
Dr. Bilal Ur Rehman	Ph.D. (Pak)
Dr. Atif Jan	Ph.D. (Pak)
Dr. Salman Ilahi	Ph.D. (Pak)
Engr. Asiya Jahangir	M.Sc. (Pak)
Engr. Hina Zahir	M.Sc. (Pak)
Engr. M. Usman Ali	M.Sc. (Pak)
Engr. S.M. Faheem	M.Sc. (Sweden)
Engr. Muhammad Farooq	M.Sc. (Pak)
Engr. M. Kashif Khan	M.Sc. (Pak)
Engr. M. Nasar Jamal	M.Sc. (Pak)
Engr. Wasim Habib	M.Sc. (Pak)
Engr. Kifayat Ullah	M.Sc. (Pak)

RESEARCH PROJECTS AND FACILITIES

The department is actively participating in research activities at both Master's and Ph.D level. The research projects are scrutinized for their application towards problem solving in industry.

INTERACTION WITH INDUSTRY

The Department presently has industrial links mainly with power and communication related companies and organizations like WAPDA and PTCL. The Department is also providing their Artificial Intelligence and Internet of Things based utility solutions to BRT Peshawar, Mardan Police Department, Pakhtunkhwa Energy Development Organization and Sarhad Rural Support Program. A team of well-organized experts in the field of electric power, electronics, Artificial Intelligence and telecommunications holds regular meetings with these organizations through R&D projects, commercial projects, departmental steering committee and seminars. A number of research projects especially at Ph.D level are presently underway, pertaining to problems faced by the industry. The endowment fund Program by the Government of Pakistan provides financial assistance for the research projects.



LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
EEP 5201	Power System Analysis-I	3
EEP 5204	Power Electronics	3
EEP 5214	Power System Planning	3
EEP 5212	Power System Control	3
AE 5491	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
EEP 5202	Power System Analysis-II	3
EEP 5203	Power System Protection	3
EEP 5207	Electrical Transients in Power System	3
EEP 5208	Operation of Power System	3
EEP 5210	Direct Energy Conversion	3
EEP 5211	Power System Reliability	3
EEP 5228	Electrical Insulation Engineering	3
EEP 5205	High Voltage D.C. Transmission	3
EEP 5209	Field Theory	3
EEP 5213	Materials Science	3
EEP 5206	High Voltage Transmission System	3

EEP 5216	Advance Electronic Circuits	3
EEP 5217	Digital Systems	3
EEP 5224	Power Electronics: Converter Modeling, Analysis and Design	3
EEP 5238	Advance Power Electronics	3
EEP 5290	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
EEP 5299	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
EEP 6299	Ph.D. Thesis	36

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
EEC 5287	Fiber Optic Communication System	3
EEC 5281	Computer Networks	3
EEC 5247	Theory and Design of Antennas	3
EEC 5236	Advanced Electronics	3
AE 5491	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
EEC 5277	Wireless Communication	3
EEC 5280	Information and Coding Theory	3
EEC 5278	Random Signals and Noise	3
EEC 5223	Advance Digital Design	3
EEC 5246	Microwave Engineering	3
EEC 5276	Digital Communication Systems	3
EEC 5289	Network Security	3
EEC 5290	Propagation for Wireless Communication	3
EEC 5279	Stochastic Processes	3
EEC 5211	Signal Detection & Estimation	3
EEC 5282	Mobile Networking	3
EEC 5283	Performance Evaluation and Modeling of Communication Networks	3
EEC 5212	Digital Signal Processing	3
EEC 5213	Advanced Digital Signal Processing	3

EEC 5214	Adaptive Filters	3
EEC 5296	Database Design & Management	3
EEC 5284	Telecom Switching & Signaling Systems	3
EEC 5285	Optical &High Speed Networks	3
EEC 5286	Telecomm Engineering	3
EEC 5288	Integrated Services over Packet Networks (New Generation Networks)	3
EEC 5237	Power Electronics: Converter Modelling, Analysis and Design	3
EEC 5238	Advanced Power Electronics	3
EEC 5222	Computer System Architecture and Organization	3
EEC 5221	Switching Theory and Logic Design	3
EEC 5224	VLSI Circuit Design	3
EEC 5231	Lightwave Devices	3
EEC 5297	Data Structures and Algorithms	3
EEC 5215	Computer Vision	3
EEC 5216	Digital Image Processing	3
EEC 5266	Linear Systems and Controls	3
EEC 5267	Digital Control Systems	3
EEC 5298	Optimization Techniques	3
EEC 5266	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
EEC 5299	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
EEC 6299	Ph.D. Thesis	36

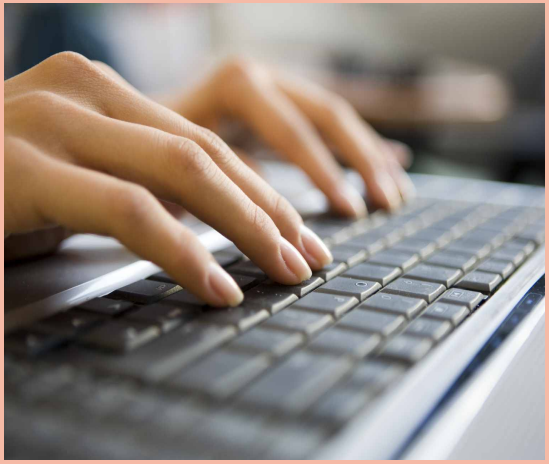
Artificial Intelligence

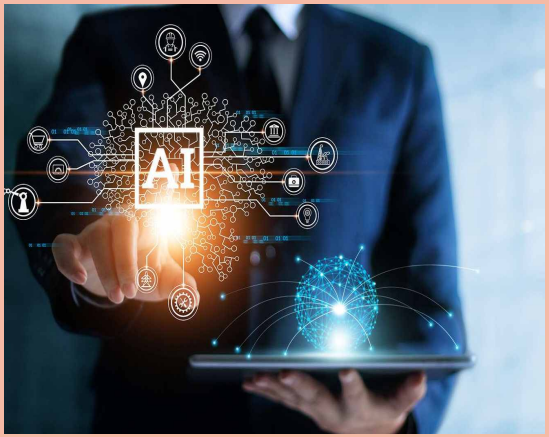
The National Center of Artificial Intelligence, University of Engineering and Technology Peshawar was established in the year 2019. The Center was involved in producing highly skilled individuals through its internship and training Programs in coordination with Pakistan Engineering Council and National Vocational and Technical Training Commission. The M.Sc. AI Program that started in Fall 2023 is designed to prepare students to meet industrial challenges by inculcating knowledge, skills and problems solving capabilities by the competent AI faculty.

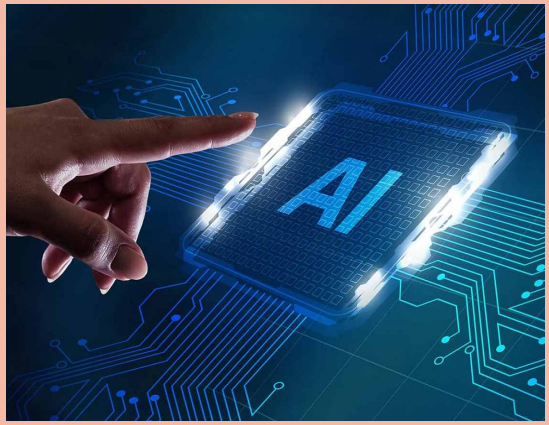
With the revolution of Industry 4.0, Artificial Intelligence has proven to be a great tool for automation and is required by most industries and high-tech companies. Its branches such as Machine Learning and Computer Vision have diverse applications in the digital domain. On the other hand, challenging problems facing the AI paradigm are much greater than before including deep fakes and augmented voices. The Centre has adequate competent facilities which are available at both educational and professional level to equip students with skills and competence to counter these challenges. The Program of Postgraduate education in Artificial Challenges has been designed to include course work in the major subjects of Artificial Intelligence with a research thesis to be done independently by each student. Emphasis will be given to imparting in-depth knowledge and developing research capabilities among the students.

Research Projects and Facilities

The students will be provided with the facilities such as GPU computational resources, independent AI models development and knowledge to advance in the field of Artificial Intelligence. The students are given complex, and industry driven real world projects as a semester/ thesis problem to solve during the graduation problem.







LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
EEA 501	Artificial Intelligence	3
EEA 502	Machine Learning	3
EEA 504	Probability and Random Signal and Noise	3
EEA 517	Deep Learning	3
AE 5491	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
EEA 503	Mathematical Methods for Artificial Intelligence	3
EEA 505	Computer Vision	3
EEA 514	Neural Networks	3
EEA 515	Evolutionary Algorithms	3
EEA 516	Data Mining	3
EEA 610	Reinforcement Learning	3
EEA 614	Natural Language Processing	3
EEA 506	Probabilistic Graphical Models	3
EEA 507	Probabilistic Robotics	3
EEA 508	Sensors and Sensing	3
EEA 509	Modelling and Simulation	3

EEA 510	Advanced Programming in Python	3
EEA 511	Cyber Security	3
EEA 512	Internet of Things	3
EEA 513	Pattern Recognition	3
EEA 605	Multi-agent Systems	3
EEA 606	Knowledge Representation and Reasoning	3
EEA 607	Speech Processing	3
EEA 608	Data Acquisition and Control	3
EEA 609	Intelligent Systems	3
EEA 611	Rehabilitative and Assistive Robotics	3
EEA 612	Bio Robotics	3
EEA 613	Information Retrieval	3
EEA 615	Semantic Web	3
EEA 616	Data Analysis and Visualization	3
EEA 617	Complex Adaptive Systems	3
EEA 618	Text Analytics	3
EEA 619	Intelligent Transportation Systems	3
EEA 620	Social Simulations	3
EEA 621	Ethical Machines	3
EEA 622	Big Data Analytics	3
EEA 623	Robot Motion Planning	3
EEA 624	Advanced Image Processing	3

EEA 625	Human Robot Interaction	3
EEA 626	Simultaneous Localization and Mapping	3
EEA 627	Robotic Grasping and Fixturing	3
EEA 628	Advanced Signal Processing	3
EEA 629	Computational Creativity	3
EEA 630	Serious Games	3
EEA 631	Advanced Big Data Analytics	3
EEA 632	Advanced Artificial Intelligence	3
EEA 633	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
EEA 5299	Master Thesis	6

Department of

Electrical Engineering

(Jalozai Campus)

The Department of Electrical Engineering Jalozai Campus, currently offering undergraduate and postgraduate academic Programs in electrical engineering (Electronics, Communications and Computing). Academic Programs at postgraduate level is designed to prepare students to get a thorough knowledge of basic principles in high performance communication systems. The program has been designed to prepare the students for job requirements in state-of-the-art industry, to equip them with the latest technological advancements in the specialized areas of their interest and to help them pursue their career in the field of electrical engineering more effectively.

Electrical Engineering is a vital field that has played an important role in the socio-economic development of the country over the years and the M.Sc. Electrical Engineering Program at Electrical Engineering Department of UET Peshawar Jalozai Campus will prepare the graduates, in the advanced topics such as Communication, Electronics and Computing, to deliver and contribute in the numerous applications of electrical engineering, with respect to changing trends. The Department has adequate competent facilities which are available atboth educational and professional level. The Program of Postgraduate education in electrical engineering has been designed to include course work in the major subjects of electrical Electronics, Communications and Computing) engineering and with a research thesis to be done independently by each student. Emphasis will be given on imparting in-depth knowledge and developing research capabilities among the students.

Objectives of the Program

The courses for Post Graduate programs in Electrical Engineering Jalozai Campus are designed keeping in view the demands of the prospective jobs market. The highly qualified and experienced faculty of the department will flourish the graduates with the required skills of the time, make them independent learners and team builder. In addition, the program is aimed to help the faculty members nurture their personal and professional profile.

The Key objectives of the program are as given below:

I. To assist the graduates, acquire a profound knowledge of the specialized area
ii. To mentor the graduates towards the latest research tools in state of the art
iii. To guide the graduates and make them capable to convert the acquired theoretical knowledge into real tangible products.

Chairman

Dr. Amjad Ali	Ph.D. (China)

Associate Professor

Dr. Amjad Ali	Ph.D. (China)
Dr. Akhtar Nawaz Khan	Ph.D. (Thailand)
Dr. Yousaf Khan	Ph.D. (China)

Assistant Professors

Dr. Uzair Gilani	Ph.D. (USA)
Dr. Abid Ullah	Ph.D. (USA)
Dr. Zaka Ullah Zahid	Ph.D. (USA)
Dr. Abu Bakr Siddique	Ph.D. (UK)
Dr. Abid Siddique	Ph.D. (USA)
Dr. Waqas Ahmed Imtiaz	Ph.D. (Pak)
Dr. Abid Iqbal	Ph.D. (Australia)
Dr. Ibrar Ullah	Ph.D. (Pak)
Dr. Sheraz Khan	Ph.D. (Thailand)

Lecturers

Dr. Irfan Ahmad	Ph.D. (Pak)
Dr. Abdul Basit	Ph.D. (Pak)
Engr. Najvia	M.Sc. (Pak)
Engr. M. Farhan	M.Sc. (Pak)
Engr. M. Rizwan	M.Sc. (Pak)
Engr. Zahid Zaman	M.Sc. (Pak)
Engr. Irshad Ullah	M.Sc. (Pak)
Engr. Fazal-e-Wahab	M.Sc. (Pak)
Engr. M. Ismail Afridi	M.Sc. (Pak)

Laboratory Engineers

Dr. Aamir Aman	Ph.D. (Pak)
Engr. Waqar Hussain	M.Sc. (Pak)

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
EE 5401	Wireless and Mobile Communication	3
EE 5402	Device Electronics	3
EE 5427	Artificial Intelligence	3
EE 5446	Python for Data Science	3
EE 5447	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
EE 5405	Advanced Computer Networks	3
EE 5406	Machine Learning	3
EE 5410	Image and Video Processing	3
EE 5414	Information and Coding Theory	3
EE 5417	Optical Communications	3
EE 5421	Antenna Theory and Design	3
EE 5425	Array Signal processing	3
EE 5431	Smart Antennas	3
EE 5436	Propagation for Wireless Communication	3
EE 5441	Ethical Hacking and Network Defense	3
EE 5443	Software Defined Radios	3
EE 5444	Statistical Signal Processing	3
EE 5445	Intelligent Vehicular and Pedestrian Traffic Optimization	3

EE 5403	Design and Analysis of Algorithms	3
EE 5404	Stochastic Processes	3
EE 5434	Linear Systems and Controls	3
EE 5407	Data Mining Concepts and Algorithms	3
EE 5408	Embedded Systems Design	3
EE 5411	Simulation Modeling and Analysis	3
EE 5412	Network Security	3
EE 5415	Optimization Theory	3
EE 5419	Analysis and Design of Microwave Linear Circuits	3
EE 5422	Power Electronic Converters	3
EE 5428	Pattern Recognition	3
EE 5429	Distributed Systems	3
EE 5432	Data Communication and Security	3
EE 5433	Advanced Digital Signal Processing	3
EE 5435	Digital Control Systems	3
EE 5437	Electronic Design Automation	3
EE 5438	Advanced Control Systems	3
EE 5439	Computation Techniques for Electrical Engineers using Matlab	3
EE 5440	Nanoelectronics	3
EE 5442	USB, The Protocol, Devices and Forensics	3
EE 5448	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
EEC 5299	Master Thesis	6

Department of

Electronics Engineering

(Abbottabad Campus)

Electronics Engineering is one of the fast-growing disciplines having its applications in almost every field which include high speed data communication, automatic power system control devices, aerospace technology, computer hardware, industrial automation, robotic etc. Today's fast growing cellular technology depends on Electronics Engineering. Keeping in view the importance of the subject, the University of Engineering & Technology started the Program at its Abbottabad campus from fall semester 2004, treating it as specialized discipline not being offered at other campuses of the University. The B.Sc. Electronics Engineering degree is successfully running in the UET Abbottabad campus and has graduated 15 batches, with a combined strength of more than 500 engineers who have been duly registered by the Pakistan Engineering Council (PEC).

The Electronics Engineering department is offering M.Sc. Electronics Engineering from Fall-2023. The Department of Electronics Engineering, UET Peshawar, Abbottabad Campus has five Ph.D. faculty members in areas like Chip designing, Embedded Systems, Power Electronics, Nano electronics and renewable energy and power systems. These areas are increasingly becoming important due to the rise of AI and the need for cleaner and cheaper energy.

The department regularly organizes seminars and extension lectures for the benefit of the students and faculty.

Chairman

Dr. Adam Khan	Ph.D. (Pak)

Professor

Prof. Dr. Syed Riaz-ul-Hassnain	Ph.D. (Pak)

Associate Professor

Dr. Adam Khan	Ph.D. (Pak)

Assistant Professors

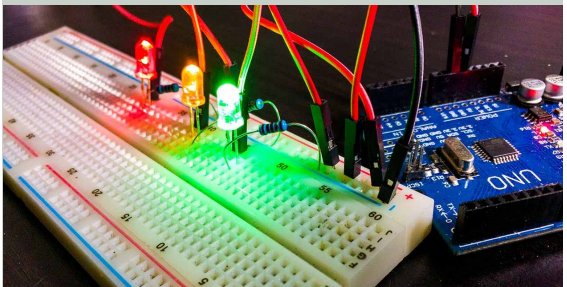
Engr. Wajid Mehmood	M.Sc. (Germany)
Engr. M. Fayyaz Khan	M.Sc. (Pak)
Dr. Anees Ullah	Ph.D. (Italy)
Dr. Uzma Nawaz	Ph.D. (Pak)

Lecturers

Dr. Haider Zaman	Ph.D. (China)
Engr. Sania Syed	M.Sc. (Pak)
Engr. Muhammad Hanif	M.Sc. (Pak)
Engr. Asma Israr	B.Sc. (Pak)
Engr. Yasir Malik	M.Sc. (Pak & UK)
Engr. Munaza Razzaq	M.Sc. (Pak)
Engr. Afshan Ishaq	B.Sc. (Pak)
Engr. Mehmoona Gul	M.Sc. (Pak)
Engr. Quratulain	M.Sc. (Pak)

Laboratory Engineer

Engr. Muhammad Ayaz	M.Sc. (Pak)
Engr. Malik Adnan Khan	M.Sc. (Pak)
Engr. Irshad Hussain	M.Sc. (Pak)



LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
ELE 5204	System on Chip Design	3
ELE 5205	Micro Electronics Systems	3
ELE 5401	Power Semiconductor Devices	3
ELE 5402	Linear Systems Theory	3
ELE 5317	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
ELE 5201	Real Time Embedded Systems	3
ELE 5202	FPGA-based digital design for signal processing	3
ELE 5203	Electronic Design Automation for ASICs and FPGAs	3
ELE 5206	Advanced Digital Control	3
ELE 5207	Advanced Computer Architecture	3
ELE 5208	Digital Signal Processing	3
ELE 5209	Digital Image Processing	3
ELE 5217	Advanced VLSI Design	3
ELE 5218	FPGA-based reconfigurable Systems	3
ELE 5301	Fundamental of Nano Electronics	3
ELE 5302	Advanced Theory of Semiconductors & Devices	3

ELE 5303	Introduction to Nano Electronics and Technology	3
ELE 5304	Physics of Nano MOSFET	3
ELE 5305	Semiconductor Device Processing and Technology	3
ELE 5306	Nanotechnology	3
ELE 5307	Organic Semiconductor and Devices	3
ELE 5309	Fault-tolerant Electronics Systems	3
ELE 5311	Nanoscale Transistors	3
ELE 5403	Power System Analysis	3
ELE 5404	Micro Electromechanical Systems	3
ELE 5405	Electrical Power Generation and Renewable Energy Resources	3
ELE 5406	Modeling and Control of Power Converters	3
ELE 5407	Impedance Source Converters	3
ELE 5408	Design of Electrical Machines	3
ELE 5409	AC/DC drives	3
ELE 5411	Advanced Power Electronics	3
ELE 5413	Photovoltaic Energy and Its Applications	3
ELE 5414	Adjustable Speed Drives	3
ELE 5416	Nonlinear Control System	3
MA 5404	Mathematical Methods	3
ELE 5211	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
ELE 5400	Master Thesis	6

Department of

Computer Systems Engineering

(Peshawar Campus)

The field of Computer Systems Engineering has emerged as one of the principal areas of study throughout the world, making the subject area critical in the development of new computer systems, devices and products. The task of this branch of engineering is to solve practical engineering problems by creating computer based systems, in particular, systems that have a computer embedded in a larger system. It includes a diverse set of engineering skills in the areas such as sensing real world quantities, signal conditioning for sensors, digitizing signals, decision making in hardware and software, software engineering, control systems, robotics, electronic devices for actuators, actuator design; any system that must sense, make decisions, and act in the real world. Increasingly, the computers are used in real time control applications, such as appliances, automobiles, industrial processes, alarm systems, communication systems, robotics and automation. The research in computer systems has its applications in a broad range of situations, such as consumer and medical electronics, custom electronic design, digital communication systems, computer networks, wireless networks, transport systems, electricity generating stations, automation, and heavy machinery.

RESEARCH PROJECTS AND FACILITIES

The department has highly qualified faculty, which is actively participating in the university's research activities. Research activities are carried out mostly in the field of computer networks, digital signal processing, control systems, artificial intelligence and neural networks, embedded systems, advance digital design, computational bio

Chairman

Prof. Dr. Laiq Hasan	Ph.D. (The Netherland)

Professors

Prof. Dr. Laiq Hasan	Ph.D. (The Netherland)
Prof. Dr. Sadeeq Jan	Ph.D. (Luxembourg)
Prof. Dr. Zahid Wadud Mufti	Ph.D.(Pak)

Associate Professors

Dr. Nasru Minallah	Ph.D. (UK)
Dr. Nasir Ahmad	Ph.D. (UK)
Dr. Khurram Shehzad Khattak	Ph.D. (USA)

Assistant Professors

Dr. M. Athar Javed Sethi	Ph.D. (Malaysia)
Dr. Arbab Masood Ahmad	Ph.D. (Pak)
Dr. Safdar Nawaz Khan Marwat	Ph.D. (Germany)
Dr. Salman Ahmed	Ph.D. (Canada)
Dr. Samad Baseer Khan	Ph.D. (Thailand)
Engr. Ihsan Ul Haq	M.Sc. (Pak)

Lecturers

Dr. Rehmat Ullah Khattak	Ph.D. (Pak)
Dr. Abeer Irfan	Ph.D. (Italy)
Dr. Muniba Ashfaq	Ph.D. (Pak)
Dr. Durr-e-Nayab	Ph.D. (Pak)
Dr. Amaad Khalil	Ph.D. (Pak)
Engr. Sumayyea Salahudin	M.Sc. (Pak)
Dr. Madiha Sher	Ph.D. (Pak)
Dr. Asif Ali Khan	Ph.D. (Germany)
Engr. Naina Said	M.Sc. (Pak)
Engr. Madeha Mushtaq	M.Sc. (USA)
Dr. Yasir Saleem Afridi	Ph.D. (Pak)

Laboratory Engineers

Engr. Mian Ibad Ali Shah	M.Sc. (Pak)
Engr. Abdullah Hamid	M.Sc. (Pak)
Engr. Shahzada Fahim Jan	B.Sc. (Pak)

informatics and computer architecture. For this purpose, the department boosts well equipped laboratories as detailed below:

1. Three state of the art computing laboratories
2. Digital/Electronics Laboratory
3. Microprocessor Laboratory
4. DSP/Advance Digital Design Laboratory
5. Project Laboratory
6. Embedded Networks Laboratory

INTERACTION WITH INDUSTRY

The department maintains regular interaction with the public and private sector organizations. Courses in latest engineering techniques of interest to the industry are offered on regular bases.

ELIGIBILITY CRITERIA FOR ADMISSION IN M.SC. COMPUTER SYSTEMS ENGINEERING

B.S / B.Sc / B.E in Electrical Engineering / Electronics Engineering / Mechatronics Engineering / Computer Systems Engineering / Computer Software Engineering / Telecommunication Engineering recognized by Pakistan Engineering Council.

AREAS OF SPECIALIZATION

At postgraduate level, the department offers M.Sc. and Ph.D. programs in computer systems engineering. The postgraduate programs provide knowledge and research skills in a wide range of subjects related to computer systems engineering. In particular, the following four streams of specializations are offered in the Master program:

1. Information Security
2. Machine Learning
3. Software Engineering
4. Digital and Embedded Systems

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
CSE 5630	Cryptography and Network Security	3
CSE 5640	Security of Web-based Systems	3
CSE 5642	Cyber Security Principles	3
CSE 5661	Machine Learning Techniques	3
CSE 5691	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
CSE 5638	Security and Privacy of Cyber-Physical Systems	3
CSE 5639	Advanced Systems Security	3
CSE 5641	Information Security Management	3
CSE 5643	Digital Forensics and Cybercrime Investigation	3
CSE 5644	Ethical Hacking Methodologies	3
CSE 5645	Advanced Communication Security	3
CSE 5646	Security Testing	3
CSE 5647	Information Assurance	3
CSE 5648	Machine Learning for Cyber Security	3
CSE 5649	Vulnerability Assessment & Reverse Engineering	3
CSE 5601	Advanced Digital Image Processing	3

CSE 5603	Computer Vision	3
CSE 5666	Advanced Embedded Systems Design	3
CSE 6609	Advanced Digital Design	3
CSE 5664	Computational Bioinformatics	3
CSE 5665	Parallel Processing	3
CSE 5667	High Performance Computing	3
CSE 5632	Mobile Communication Systems	3
CSE 5633	Wireless Networks	3
CSE 5634	Internet-of-Things	3
CSE 5663	Artificial Intelligence	3
CSE 5682	Advanced Software Testing	3
CSE 6614	Information Theory and Coding	3
CSE 5650	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
CSE 5699	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
CSE 6699	Ph.D. Thesis	36

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
CSE 5661	Machine Learning Techniques	3
CSE 5663	Artificial Intelligence	3
CSE 6605	Neural Networks and Deep Learning	3
CSE 5630	Cryptography and Network Security	3
CSE 5691	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (M.Sc./Ph.D. students 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (M.Sc./Ph.D. students 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
CSE 5660	Pattern Recognition	3
CSE 5662	Cloud Computing	3
CSE 5664	Computational Bioinformatics	3
CSE 5665	Parallel Processing	3
CSE 5667	High Performance Computing	3
CSE 5668	Autonomic Computing	3
CSE 6612	Big Data Analytics	3
CSE 5601	Advanced Digital Image Processing	3
CSE 5603	Computer Vision	3
CSE 5666	Advanced Embedded Systems Design	3
CSE 6609	Advanced Digital Design	3

CSE 5664	Computational Bioinformatics	3
CSE 5665	Parallel Processing	3
CSE 5667	High Performance Computing	3
CSE 5632	Mobile Communication Systems	3
CSE 5633	Wireless Networks	3
CSE 5634	Internet-of-Things	3
CSE 5640	Security of Web-based Systems	3
CSE 5642	Cybersecurity Principles	3
CSE 5648	Machine Learning for Cyber Security	3
CSE 5682	Advanced Software Testing	3
CSE 6614	Information Theory and Coding	3
CSE 5669	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
CSE 5699	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
CSE 6699	Ph.D. Thesis	36

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
CSE 5681	Advanced Requirements Engineering	3
CSE 5682	Advanced Software Testing	3
CSE 5661	Machine Learning Techniques	3
CSE 5630	Cryptography and Network Security	3
CSE 5691	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (M.Sc./Ph.D. students 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (M.Sc./Ph.D. students 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
CSE 5680	Advanced Software Systems Architecture	3
CSE 5683	Advanced Software Project Management	3
CSE 5684	Advanced Human Computer Interaction	3
CSE 5685	Advanced Software Quality Assurance	3
CSE 5686	Software Design Patterns	3
CSE 5687	Agile Software Development Methods	3
CSE 5688	Empirical Software Engineering	3
CSE 5689	Component Based Software Engineering	3
CSE 5690	Software Configuration Management	3
CSE 5692	Advanced Formal Methods	3
CSE 5693	Software Measurement and Methods	3

CSE 5601	Advanced Digital Image Processing	3
CSE 5603	Computer Vision	3
CSE 5666	Advanced Embedded Systems Design	3
CSE 6609	Advanced Digital Design	3
CSE 5664	Computational Bioinformatics	3
CSE 5665	Parallel Processing	3
CSE 5667	High Performance Computing	3
CSE 5632	Mobile Communication Systems	3
CSE 5633	Wireless Networks	3
CSE 5634	Internet-of-Things	3
CSE 5663	Artificial Intelligence	3
CSE 5640	Security of Web-based Systems	3
CSE 5642	Cyber Security Principles	3
CSE 6608	Advanced Computer Architecture	3
CSE 6614	Information Theory and Coding	3
CSE 5694	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
CSE 5699	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
CSE 6699	Ph.D. Thesis	36

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
CSE 5666	Advanced Embedded Systems Design	3
CSE 6609	Advanced Digital Design	3
CSE 5661	Machine Learning Techniques	3
CSE 5630	Cryptography and Network Security	3
CSE 5691	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
CSE 5606	Advanced Digital Signal Processing	3
CSE 5615	Sensor Based Systems	3
CSE 5616	Semiconductor Devices for Integrated Circuits	3
CSE 5617	Electronic Systems Design	3
CSE 5664	Computational Bioinformatics	3
CSE 5665	Parallel Processing	3
CSE 5667	High Performance Computing	3
CSE 5620	PCB Design	3
CSE 5682	Advanced Software Testing	3
CSE 6608	Advanced Computer Architecture	3
CSE 6610	Integrated Electronics/VLSI Design	3

CSE 5601	Advanced Digital Image Processing	
CSE 5603	Computer Vision	3
CSE 5632	Mobile Communication Systems	3
CSE 5633	Wireless Networks	3
CSE 5634	Internet-of-Things	3
CSE 5663	Artificial Intelligence	3
CSE 5640	Security of Web-based Systems	3
CSE 5642	Cybersecurity Principles	3
CSE 6614	Information Theory and Coding	3
CSE 5621	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
CSE 5699	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
CSE 6699	Ph.D. Thesis	36

Department of Computer Science

(Peshawar Campus)

Welcome to the Department of Computer Science, where innovation, research, and academic rigor converge to shape the future of technology. Our graduate programs offer a dynamic platform for students to excel in advanced areas of computer science, preparing them for leadership roles in both academia and industry. With a focus on cutting-edge research and emerging technologies, we ensure that our graduates are well-equipped to meet the challenges of the digital age.

Programs Offered

Master of Science (MS) in Computer Science

Our MS in Computer Science program offers two specialized streams:

1. **Data Science and Distributed Systems:** This stream focuses on big data analytics, machine learning, cloud computing, and distributed systems. Students will gain expertise in handling complex data-driven tasks and developing scalable computing solutions.

2. **Cyber Security:** Designed to address the growing demand for cyber security professionals, this stream covers topics such as network security, cryptography, and secure system architecture, preparing graduates to safeguard digital infrastructures.

Doctor of Philosophy (Ph.D.) in Computer Science

The Ph.D. program is designed for those seeking to advance knowledge through groundbreaking research. Students engage in deep exploration of their chosen field and contribute to the development of novel solutions to real-world computing problems. Our Ph.D. scholars collaborate closely with faculty on advanced research topics that span a broad spectrum of computer science disciplines.

Why Choose Our Graduate Programs?

Expert Faculty: Our department boasts a highly experienced faculty engaged in cutting-edge research across multiple domains. Their

Chairman

Dr. Syed Adeel Ali Shah	Ph.D. (Malaysia)

Associate Professors

Dr. Iftikhar Ahmad	Ph.D. (Germany)
Dr. Syed Adeel Ali Shah	Ph.D. (Malaysia)

Assistant Professors

Dr. Wajeeha Khalil	Ph.D. (Austria)
Dr. M. Imran Khan Khalil	Ph.D. (Pak)
Dr. Suhail Yousaf	Ph.D. (The Netherlands)
Dr. M. Naeem Khan	Ph.D. (Pak)
Mr. Ismat Ullah Khan	M.Sc. (Pak)

Lecturers

Dr. Zakira Inayat	Ph.D. (Malaysia)
Dr. Ala Uddin	Ph.D. (Pak)
Dr. Dilawar Khan	Ph.D. (Pak)
Mr. Imran Rasheed	M.Sc. (Pak)
Mr. Sadiq-ur-Rehman	M.Sc. (Pak)
Mr. Amir Taj	M.Sc. (UK)
Ms. Aisha Javed	MIT (Pak)
Mr. Inayat Ullah	M.Sc. (Pak)
Engr. Mujtaba Hassan	M.Sc. (Pak)

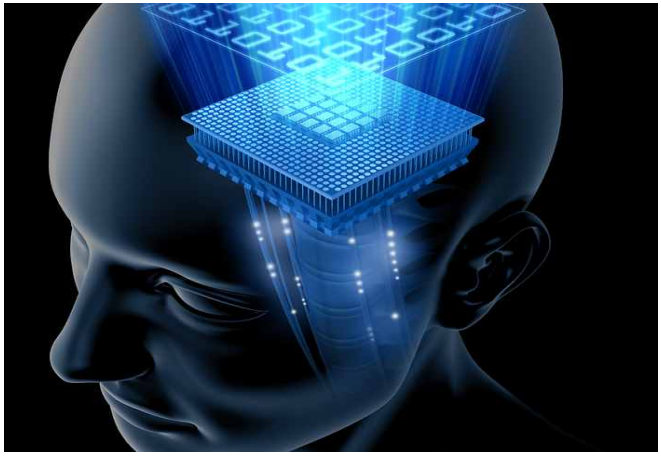
expertise and mentorship help guide students toward academic and professional success.

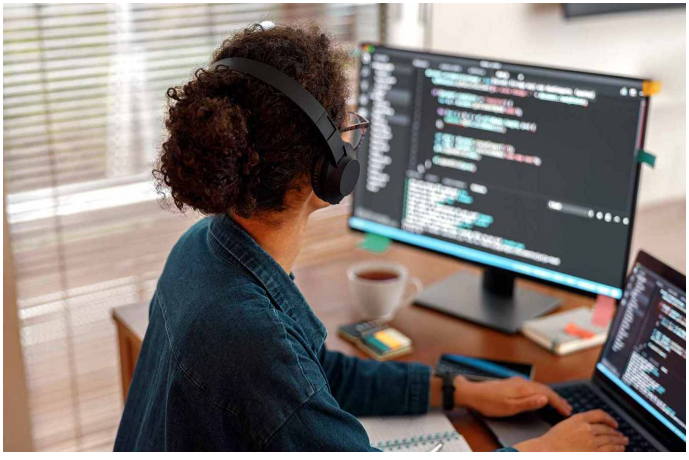
Research Opportunities: We offer a robust research environment with access to advanced labs and facilities. Students are encouraged to participate in collaborative research projects, publish papers, and present at national and international conferences.

State-of-the-Art Facilities: The department is equipped with modern laboratories, advanced computing resources, and specialized software, enabling both academic and research excellence.

Industry Connections: Strong ties with the industry provide students with opportunities for internships, collaborative research, and exposure to real-world challenges. These connections help bridge the gap between academia and industry, ensuring our graduates are highly employable and industry-ready.

Comprehensive Curriculum: Our curriculum is carefully designed to blend theoretical knowledge with practical applications. It is continuously updated to reflect the latest advancements in the field, ensuring that our graduates are prepared to tackle the rapidly evolving demands of the technology sector.





LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
CS 5501	Advanced Analysis of Algorithms	3
CS 5630	Machine Learning	3
CS 5638	Principles of Data Science	3
CS 5571	Distributed Computing	3
CS 5504	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
CS 5639	Deep Learning	3
CS 5577	Data Intensive Computing Systems	3
CS 5637	Advanced Topics in AI	3
CS 5573	Distributed Computing Paradigm	3
CS 5574	Virtual Organizations	3
CS 5634	Human Computer Interaction	3
CS 5533	Software Project Management	3
CS 5597	Blockchain Technologies	3
CS 5650	Online Algorithms and Competitive Analysis	3
CS 5654	Algorithmic Game Theory	3
CS 5614	Data Mining	3

CS 5633	Natural Language Processing	3
CS 5655	Graph Theory and Social Networks	3
CS 5500	Advanced Theory of Computation	3
CS 5502	Advanced Operating System	3
CS 5503	Advanced Computer Architecture	3
CS 5510	Advanced Operations Research	3
CS 5542	Software Testing	3
CS 5578	Internet of Things	3
CS 5575	Grid Computing	3
CS 5572	Cloud Computing	3
CS 5594	Wireless Networks	3
CS 5576	Advanced Topics in Distributed Computing	3
CS 5586	Advanced Statistics for Data Science	3
CS 5587	Big Data Analytics	3
CS 5522	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
CS 5199	MS Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
CS 6199	Ph.D. Thesis	36

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
CS 5501	Advanced Analysis of Algorithms	3
CS 5630	Machine Learning	3
CS 5550	Computer Security	3
CS 5561	Web Security	3
CS 5504	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
CS 5551	Advanced Network Security	3
CS 5552	Security Management	3
CS 5553	Security in Mobile and Wireless Networks	3
CS 5554	Applied Cryptography	3
CS 5542	Software Testing	3
CS 5634	Human Computer Interaction	3
CS 5555	Ethical Hacking	3
CS 5597	Blockchain Technologies	3
CS 5650	Online Algorithms and Competitive Analysis	3
CS 5654	Algorithmic Game Theory	3
CS 5500	Advanced Theory of Computation	3

CS 5502	Advanced Operating System	3
CS 5503	Advanced Computer Architecture	3
CS 5510	Advanced Operations Research	3
CS 5533	Software Project Management	3
CS 5556	Software Engineering & Security Architecture	3
CS 5557	Database Security	3
CS 5558	Digital Forensics	3
CS 5560	Advanced Topics in Information & Communication Security	3
CS 5562	Information Privacy and Security	3
CS 5522	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
CS 5199	MS Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
CS 6199	Ph.D. Thesis	36

FACULTY OF
MECHANICAL, CHEMICAL AND INDUSTRIAL ENGINEERING

MESSAGE FROM THE DEAN

Faculty of Mechanical, Chemical and Industrial Engineering (FMCIE) is one of the dynamic faculties of the University of Engineering and Technology, Peshawar. The faculty consists of seven teaching departments, including disciplines of mechanical, industrial, chemical, mechatronics and energy engineering. These departments are spread over Main Campus Peshawar, Jalozai Campus and Hayatabad Campus, in addition, the faculty also houses state of the art research centers in energy, robotics, rapid prototyping, and gas engineering. The faculty comprises teaching faculty from the universities of international repute who are well-qualified and dedicated to teaching and research in their respective areas. The blend of facilities for teaching and research, both for undergraduate and postgraduate programes creates an excellent learning environment for our students.

We consider students as our asset and leave no-stone unturned to groom them to the best of their potential, and send them to the market/society to play their role for socio-economic development of the country. The faculty actively strives to compete and secure funded projects from various funding agencies, involving its postgraduate students in the execution of these projects.

Our Alumni are working in their respective professional areas across the globe and providing excellent feedback for Continual Quality Improvement (CQI) of our programs. The excellent integration of alumni, students, faculty members and industry ensure sustainable CQI of the programs and makes them attractive for prospective students.

I thank you for visiting us and welcome all our prospective students to join us and be part of our family. Give us a chance to get yourselves prepared for challenges ahead and achieve your dreams.

Prof. Dr. Rizwan M. Gul
Dean, Faculty of Mechanical, Chemical
and Industrial Engineering

Department of
Mechanical Engineering

(Peshawar Campus)

Mechanical Engineering encompasses the generation, conversion, transmission, and utilization of mechanical and thermal energy as well as the design, construction, and operation of all kinds of machines. of all the engineering disciplines, mechanical engineering offers the greatest breadth, flexibility, and individuality. The professions taken up by mechanical engineers are very diverse and touch every walk of life. One usually thinks of mechanical engineers finding employment in traditional industries such as the automotive, power generation and manufacturing, but it must be kept in mind that the high-tech "smart products" combining computer chips into mechanical devices are also designed and manufactured by mechanical engineers.

The mission of the Mechanical Engineering Department is to produce leaders in mechanical engineering for the 21st century by providing each student with a balance of intellectual knowledge and practical experience in order to prepare the graduates to address a variety of societal needs. The program prepares each student with higher competencies as a practicing mechanical engineer, or for higher studies in engineering. With solid grounding in the principles and practice of mechanical engineering, graduates are ready to engage in a lifetime of learning about employing new concepts, technologies, and methodologies.

The Department of Mechanical Engineering was conceived in 1952 as part of the Faculty of Engineering, Peshawar University, which was later upgraded to the status of a full-fledged Engineering University in 1980. The postgraduate program in the department started in 1991 and offers a Masters degree in Mechanical Engineering as well as Ph.D.

Chairman

Prof. Dr. Hamid Ullah	Ph.D. (Thailand)

Professors

Prof. Dr. Rizwan M. Gul	Ph.D. (USA)
Prof. Dr. Hamid Ullah	Ph.D. (Thailand)
Prof. Dr. Afzal Khan	D.Sc (USA)
Prof. Dr. Abdul Shakoor	Ph.D. (UK)
Prof. Dr. Shaukat Ali Shah	Ph.D. (Thailand)
Prof. Dr. Muhammad Sadiq	Ph.D. (USA)

Associate Professors

Dr. Feroz Shah	Ph.D. (Pak)
Dr. M. Ali Kamran	Ph.D. (UK)
Dr. Kareem Akhter	Ph.D. (USA)

Assistant Professors

Dr. M. AlamZaib Khan	Ph.D. (UK)
Dr. Umar Ibrahim	Ph.D. (USA)
Engr. Ihsan Ullah	M.Sc. (Pak)
Dr. Naveed Ullah	Ph.D. (S.Korea)
Dr. Naveed Ahmad	Ph.D. (France)
Dr. Zeeshan Zahir	Ph.D. (S.Korea)
Dr. Arshad Mehmood	Ph.D. (USA)
Dr. Ahmad Nawaz	Ph.D. (Hong Kong)

Lecturers

Dr. Tabassum Yasmin	Ph.D. (UK)
Dr. Fakhre Alam	Ph.D. (S.Korea)
Engr. Zuhaib Ali Khan	M.Sc. (Pak)
Engr. Fazli Yazdan	M.Sc. (Pak)
Engr. Adnan Rasheed	M.Sc. (Pak)
Engr. Numan Khan	M.Sc. (Pak)
Engr. Awais Ahmad	M.Sc. (KSA)
Engr. Arsalan Khan	M.Sc. (Pak)
Engr. Qazi M. Yaseen	M.Sc. (Pak)
Engr. Shafi-ud-Din	M.Sc. (Pak)
Engr. M. Usman Khan	M.Sc. (Pak)
Engr. Kaleem Ullah Khalil	M.Sc. (Pak)
Engr. Ismail Khan	M.Sc. (Pak)

Laboratory Engineers

Engr. Asim Ahmad Riaz	M.Sc. (Pak)
Dr. Abid Hussain	Ph.D. (Pak)
Engr. Nadeem ur Rehman	B.Sc. (Pak)

RESEARCH AREAS

Current research in the department focuses on die-casting, design of renewable energy systems, implant materials characterization, driving safety issues, and technology management. The department boasts well-qualified permanent faculty with Ph.D. and Master degrees from both USA and UK. Extensive computational and laboratory facilities are available for teaching and research purposes. The laboratories include an Impact Research Lab, a Rapid Prototyping facility, a Metallurgy Lab with a 10-ton computerized Universal Testing Machine, Advanced Manufacturing Lab, Dynamics and Control Lab, etc. A seminar library provides latest books of interest to researchers and postgraduate students. This is in addition to the Central Library, which stocks mostly undergraduate books.

INDUSTRIAL INTERACTION

The Department maintains regular interaction with the local industry for solving industrial problems. Courses in latest engineering techniques of interest to the industry are offered regularly and can also be arranged on request. Such courses include Finite Element Analysis using ANSYS, Solid Modelling using ProE, Condition Monitoring of Rotating Machinery, Experimental Stress Analysis, Computer-Aided-Drafting using AutoCAD, etc. Several research projects sponsored by industry have been undertaken by the faculty.

POST GRADUATE PROGRAM

The Department offers Master's degree in Mechanical Engineering in the following three specializations:

1. Mechanical Engineering Design
2. Materials Engineering
3. Dynamics and Control

In addition to core courses in each specialization, elective courses must be taken in consultation with advisor from amongst the approved courses. However, a maximum of one course can be taken out of the management related courses.

Doctoral program of studies was started in the department in 2002 and is currently focused on the following areas of specialization:

1. Manufacturing Processes
2. Design optimization
3. Renewable energy systems
4. Advanced materials engineering
5. Design and manufacturing methods
6. Thermal and Fluid Sciences
7. Nano technology

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
ME 5303	Finite Element Analysis	3
ME 5312	Advanced Stress Analysis	3
ME 5375	Product Design and Development	3
ME 5306	Fatigue of Metals and Structures	3
ME 5398	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
ME 5305	Experimental Stress Analysis	3
ME 5313	Continuum Mechanics	3
ME 5321	Compressible Flows	3
ME 5363	Engineering Design Optimization	3
ME 5371	Modeling and Simulation	3
ME 5374	Problem Solving and Decision Making	3
ME 5383	Advanced CAD/CAM	3
ME 5384	Eco-Design and Manufacturing Systems	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
ME 5399	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
ME 6399	Ph.D. Thesis	36

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
ME 5352	Materials Thermodynamics	3
ME 5365	Phase Transformation and Microstructures	3
ME 5392	Mechanical Behavior of Materials	3
ME 5351	Characterization of Materials	3
ME 5398	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
ME 5391	Applications and Selection of Materials	3
ME 5353	Composite Materials	3
ME 5308	Mechanics of Fiber Reinforced Composite Materials	3
ME 5314	Metal Forming	3
ME 5354	Heat Treatment of Metals and Alloys	3
ME 5355	Polymers Science and Engineering	3
ME 5356	Biomaterials	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
ME 5399	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
ME 6399	Ph.D. Thesis	36

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
ME 5335	Design of Mechanisms	3
ME 5338	Modeling of Dynamic Systems	3
ME 5339	Advanced Control Engineering	3
ME 5336	Industrial Robotics	3
ME 5398	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	3
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	3

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
ME 5371	Modeling and Simulation	3
ME 5332	Advanced Mechanical Vibration	3
ME 5331	Dynamics of Mechanisms	3
ME 5333	Vibration Measurement and Analysis	3
ME 5357	Evaluation Techniques and Instrumentation	3
ME 5361	Numerical Methods for Engineers	3
ME 5364	Conditioning Monitoring of Rotating Machinery	3
ME 5369	Digital Control Systems*	3

ME 5370	Industrial Automation	3
ME 5372	Random Vibration**	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

* ME 5339 is pre-requisite for ME 5369; ** ME 5332 is pre-requisite for ME 5372

Master Thesis

Course Code	Course Title	Credit Hours
ME 5399	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
ME 6399	Ph.D. Thesis	36

Department of

Mechatronics Engineering

(Peshawar Campus)

INTRODUCTION

Mechatronics is a multidisciplinary field of engineering comprising of mechanical, electronic, control, computer, system design and software engineering. The integration of several engineering disciplines and technologies leads to the design of innovative components and systems to produce autonomous and smart products.

The aim of the Postgraduate program at the institute of Mechatronics is to develop expertise in the areas of robotics, bio-Mechatronics, intelligent control systems, smart sensors and actuators, and Micro/Nano Electro-Mechanical Systems (MEMS & NEMS) for automotive, aviation and aerospace, transportation, manufacturing and production engineering, energy, industrial, biomedical and healthcare applications.

MISSION

The mission of the post graduate program at Institute of Mechatronics is to perform leading edge research and to groom quality researchers for the country's needs in the field of education, research and industry. To establish state of the art education and research environment for outstanding graduates, industry and community.

OBJECTIVES

- To actively participate in providing solutions to the existing and future needs of local, national and international industries.
- To develop research, technical writing and communication skills needed for scientific papers, articles, proposals, reports and presentations in national and international scientific workshops, seminars, conferences and journals.

Chairman

Prof. Dr. M. Tahir Khan	Ph.D. (Canada)

Professors

Dr. S. Riaz Akbar Shah	Ph.D. (USA)
Dr. M. Tahir Khan	Ph.D. (Canada)
Dr. Faridullah Khan	Ph.D. (Canada)
Dr. Izhar-ul-Haq	Ph.D. (UK)

Associate Professors

Dr. Kamran Shah	Ph.D. (UK)
Dr. Shahzad Anwar	Ph.D. (UK)

Assistant Professors

Dr. Muhammad Akmal	Ph.D. (Turkey)
Dr. Sheraz Ali Khan	Ph.D. (S. Korea)
Dr. Anam Abid	Ph.D. (Pak)

Lecturers

Dr. Zubair Ahmad	Ph.D. (Pak)
Dr. Gulbadan Sikandar	Ph.D. (Pak)
Engr. Hamid Khan	M.Sc. (Pak)
Engr. Nayyar Fazal	M.Sc. (Pak)
Engr. Sadaf Sardar	M.Sc. (Pak)

- To prepare excellent Mechatronics researchers and experts for the national research institutions, universities and industries.
- To establish an effective collaboration with local, national and international research institutions, universities and industries related to Mechatronics.

ELIGIBILITY CRITERIA FOR ADMISSION IN M.Sc IN MECHATRONICS ENGINEERING

Bachelor's degree in any of the following disciplines:

- Mechatronics Engineering
- Mechanical Engineering
- Electrical / Electronics / Telecom Engineering
- Industrial Engineering
- Computer Software/Systems/Computer Engineering

FIELDS OF SPECIALIZATION AND SEAT ALLOCATION

The master's program at the institute of Mechatronics offers specialization in Automation and Control.

DOCTORAL (Ph.D.) PROGRAM

The research areas that are open to doctoral students in the institute of Mechatronics include but are not limited to:

1. Intelligent Transportation
2. Robotics
3. Laser and its applications in industry
4. Bio-Mechatronics
5. Intelligent control systems
6. Smart sensors and actuators
7. Micro/Nano Electro-Mechanical Systems (MEMS & NEMS)

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
MtE 5101	Advanced Manufacturing Automation	3
MtE 5113	Advanced Control Engineering	3
MtE 5125	Machine Learning	3
MtE 5108	Advanced Industrial Control	3
MtE 5131	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
MtE 5120	Advanced Robotics	3
MtE 5105	Drives & Control in Industrial Automation	3
MtE 5107	Advanced Mechatronics Systems Design	3
MtE 5130	Machine Vision	3
MtE 5136	Fault Detection and Isolation	3
MtE 5121	Multi-Robot Systems	3
MtE 5102	Engineering Project Management	3
MtE 5103	Reconfigurable Machine Tool Design	3
MtE 5104	Laser Applications in Engineering	3
MtE 5106	Micro-fabrication	3
MtE 5109	Advanced Micro-Electromechanical Systems	3
MtE 5110	Advanced Micro & Nano Fabrication Technology	3
MtE 5111	Microrobotics	3
MtE 5112	Nanorobotic Systems	3

MtE 5114	Computer Applications in Robotics	3
MtE 5115	Biomedical Engineering	3
MtE 5116	Biomechatronics	3
MtE 5117	Multidisciplinary Engineering Design Optimization	3
MtE 5118	Genetic Algorithms	3
MtE 5119	Robotics I	3
MtE 5112	Fuzzy Logic Control	3
MtE 5123	Advanced Digital Systems	3
MtE 5124	Statistical Signal Processing	3
MtE 5126	Wearable Robots	3
MtE 5127	Industrial Pollution Control	3
MtE 5128	Advanced Digital Signal Processing	3
MtE 5129	Digital Image Processing	3
MtE 5132	Pattern Recognition	3
MtE 5133	Modeling for Manufacturing Automation	3
MtE 5134	Additive Manufacturing	3
MtE 5135	Intelligent Maintenance Systems	3
MtE 5137	Medical Image Computation	3
MtE 5138	Bio-Inspired Computing	3
MtE 5197	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
MtE 5198	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
MtE 5199	Ph.D. Thesis	36

Department of

Chemical Engineering

(Peshawar Campus)

Chemical Engineering is the branch of engineering, which blends the basic sciences with engineering knowledge and design fundamentals to develop, design, analyze and engineer the industrial processes and plants that turn raw materials into valuable products. These processes must be accomplished in a competitive economy and environmentally safe manner to create products, which are useful and essential to the modern world. Chemical Engineering science is based upon the fundamentals of mass, momentum, and heat transfer, thermodynamics and chemical kinetics. Chemical engineers are extremely versatile and able to handle a wide range of technical problems. They are familiar with the necessary skills that encompass detailed understanding of all aspects of design, testing, scale-up, operation, control, and optimization of different unit operations. They are familiar with many industries such as fuels and petrochemicals, plastics, fibers, paper, foods, building materials, water desalination and pharmaceuticals. A chemical engineering degree is also good preparation for careers in pollution prevention and waste minimization.

Chairman

Prof. Dr. Saeed Gul	Ph.D. (Austria)

Professors

Prof. Dr. Saeed Gul	Ph.D. (Austria)
Prof. Dr. M. Younas	Ph.D. (France)
Prof. Dr. Muddasar Habib	Ph.D. (UK)

Associate Professors

Dr. Jamil Ahmad	Ph.D. (Norway)
Dr. Nehar Ullah	Ph.D (Canada)
Dr. M. Imran Ahmad	Ph.D. (UK)
Dr. Hayat Khan	Ph.D. (Canada)
Dr. Muhammad Daud	Ph.D. (KSA)
Dr. Asmat Ullah	Ph.D. (UK)

Assistant Professors

Dr. Imran Khan Swati	Ph.D. (Pak)
Engr. Sultan Ali	M.Sc. (Pak)
Dr. Amad Ullah Khan	Ph.D. (Pak)
Dr. Muazzam Arshad Paracha	Ph.D. (Austria)
Dr. Irshad Ali	Ph.D. (Canada)
Dr. S. Naveed-ul-Hassan	Ph.D. (Australia)
Dr. Naseer Ahmad Khan	Ph.D. (Australia)

Lecturers

Dr. Mansoor-ul-Hassan	Ph.D.(Malaysia)
Dr. Saira Bano	Ph.D. (UK)
Engr. Unsia Habib	M.Sc. (Pak)
Engr. Wajid Ali	M.Sc. (Pak)

RESEARCH PROJECTS AND FACILITIES

The mission of the Department of Chemical Engineering at University of Engineering & Technology, Peshawar is to be a national leader in chemical engineering research and to achieve excellence in teaching. Chemical Engineering Department offers state of the art equipment and high-tech laboratories to facilitate the post graduate students in research projects and to acquire the understanding of various chemical processes by providing small-scale units and simulated industrial work environment. Chemical Engineering Department helps students equip with practical knowledge and trouble shooting through its various computer-controlled up to date laboratories such as of Chemical Process Technology, Chemical Reaction Engineering, Chemistry, Environmental Engineering, Fluid Flow, Fuel and Combustion, Heat Transfer, Instrumentation and Control, Mass Transfer, Particle Technology, SHMT, Thermodynamics.

AREA OF SPECIALIZATION

M.Sc. Advanced Chemical Engineering

This program is aimed to enhance the technical and communication skills of the chemical engineers. It is built around a core of six chemical engineering courses including advanced mass transfer, advanced chemical reaction engineering, advanced heat transfer and advanced chemical engineering thermodynamics. Electives in other areas to broaden the students' exposure are also offered. Moreover, it includes independent research, and defense of a thesis based on this research. The results of the thesis must be publishable in a technical refereed journal. The program will prepare chemical engineers for careers in teaching research and development, and management in academia, government, and industry. This program provides a basis for continued study leading to the Ph.D. degree.

Ph.D. in Chemical Engineering

The Department of Chemical Engineering offers robust doctoral program in Chemical Engineering. The department has eighteen (18) faculty members with Ph.D. degrees and diversified fields. All the doctoral faculty are on "HEC approved Supervisor" List. The interested candidates are offered the admission based on expertise of respective faculty member's following area of specialization:

- Membrane Separation Processes
- Bio-Engineering
- Process intensification
- Computational Fluid Dynamics
- Process Modeling and Simulation
- Resource Conservation and Recycling

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
ChE 5615	Advanced Mass Transfer	3
ChE 5619	Advanced Heat Transfer	3
ChE 5616	Advanced Chemical Reaction Engineering	3
ChE 5620	Advanced Chemical Engineering Thermodynamics	3
ChE 5627	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
ChE 5621	Process Dynamics and Control	3
ChE 5626	Advanced Transport Phenomena	3
ChE 5607	Mathematical Methods in Chemical Engineering	3
ChE 5618	Process Simulation and Optimization	3
ChE 5601	Membrane separation processes	3
ChE 5608	Polymer Engineering	3
ChE 5610	Heat Recovery System Design	3
ChE 5611	Separation System Design	3
ChE 5612	Management in Technical Organizations	3
ChE 5613	Industrial Waste Management	3
ChE 5614	Occupational Health and Safety in Process Industries	3
ChE 5623	Computational Fluid Dynamics	3

ChE 5624	Clean Coal Technology	3
ChE 5609	Application of Corrosion Engineering in Process Industries	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
ChE 5699	Master Thesis	6

Ph.D. in Chemical Engineering

Course Code	Course Title	Credit Hours
ChE 6601	Multi-phase Flow	3
ChE 6603	Experimental Design andAnalysis	3
ChE 6604	Process Intensification Principles	3
ChE 6605	Advanced Coal Processing Technology	3
ChE 6607	Membrane Materials and Synthesis	3
ChE 6608	Process Systems Engineering	3
ChE 6628	Geo-Polymer Engineering	3
ChE 6629	Microstructural And Surface Characterization	3
ChE 6631	Advanced Particle Processing	3
ChE 6632	Heterogeneous Catalysis	3
Ph.D. Thesis		
ChE 6699	Ph.D. Thesis	36

Department of
Industrial Engineering

(Peshawar Campus)

Industrial engineering addresses how systems operate and is concerned with the effective and efficient delivery of quality products and services. The tools applied include analytic modeling, system simulation, queuing systems, work design, project planning, facilities design and quality management and control.

Industrial engineers seek to allocate limited resources in an effective manner. A unifying theme focusing this body of knowledge and methods into a coherent entity is the systems point of view. Industrial engineering encompasses the search for similarity among concepts, laws and models of different disciplines; the emphasis on the adaptation, integration and exploitation of existing techniques in areas other than their fields of origin; and, above all, a unique point of view dealing with relationships rather than with components. Industrial engineers are thus in a strategic position to bring about the best integration of people, materials, machines, time and money in any endeavor. These techniques are applied in a very wide range of organizations. There are industrial engineers in banks, hospitals, government, transportation and communications, construction, social service, facilities design, manufacturing, warehousing and information processing. Many industrial engineers move from analyzing and designing productive systems to managing those systems. While engineering and management are different fields, both require the ability to make decisions based on valid information. Industrial engineers are especially trained to obtain and evaluate such information.

The Department of Industrial Engineering was established in 2006. The Post Graduate program started in Fall-2008, and is currently offering a Master's degree in Manufacturing Systems Engineering which is one of the streams of Industrial Engineering. The Department has also started Ph.D. program.

POST GRADUATE PROGRAM

The graduate program in Industrial Engineering (IE) offers both Doctor of Philosophy and Master of Science in Industrial Engineering with thesis option only. The program is designed to accommodate the working engineers as well, by offering classes in the evening and on weekends. The curriculum for the thesis option is designed to give students greater breadth and depth of technical and practical IE knowledge. This option allows specialization in Industrial Systems Engineering, Manufacturing Systems Engineering, Operations Research, Quality Engineering, Industrial Management, and Human Factor Engineering areas. These are distinct areas, each tailored to specific IE career needs and characterized by both breadth and depth in its curriculum. Presently, the Department of Industrial Engineering offers master and Ph.D program in the Manufacturing Systems Engineering and Master degree program in Engineering Management.

Chairman

Dr. Rehman Akhtar	Ph.D. (USA)

Professors

Prof. Dr. Sahar Noor	Ph.D. (UK)
Prof. Dr. Shahid Maqsood	Ph.D. (UK)
Prof. Dr. Misbah Ullah	Ph.D. (S.Korea)

Associate Professors

Dr. Sikandar Bilal Khattak	Ph.D. (Pak)
Dr. Imran Ahmad	Ph.D. (S.Korea)
Dr. Usman Ghani	Ph.D. (UK)

Assistant Professors

Dr. Altaf Hussain	Ph.D. (Pak)
Engr. Fawad Haidar	M.Sc. (UK)
Engr. Aamir Sikandar	M.Sc. (UK)
Engr. Khawar Naeem	M.Sc. (USA)

Lecturers

Dr. Muhammad Abas	Ph.D. (Pak)
Engr. Qazi Salman Khalid	M.Sc. (Pak)
Engr. Abdur Rehman Babar	M.Sc. (Pak)
Engr. Mahawish Mahmood	M.Sc. (Pak)

Laboratory Engineers

Dr. Qazi M. Usman Jan	Ph.D. (Pak)
Engr. Shakir Azim	M.Sc. (Pak)
Engr. Lal Sayd	M.Sc. (Pak)

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
IE 5710	Manufacturing Planning and control	3
IE 5750	Facility Analysis and Design	3
IE 5754	Design and Analysis of Manufacturing Systems	3
IE 5758	Advanced Manufacturing Processes	3
IE 5794	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for M.Sc./Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for M.Sc./Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
IE 5722	Engineering Experimental Design	3
IE 5726	Engineering Optimization	3
IE 5730	Maintenance & Safety Engineering	3
IE 5734	Quality Engineering	3
IE 5738	Computer Modelling and Simulations	3
IE 5701	Engineering Economics	3
IE 5702	Mathematical Statistics	3
IE 5703	Queuing Theory	3
IE 5704	Inferential Statistics	3
IE 5705	Finite Element Analysis	3

IE 5706	Organizational Systems	3
IE 5707	Dynamic Programming	3
IE 5708	Project Management Framework & Tool	3
IE 5709	Human Resource Management	3
IE 5711	Game Theory	3
IE 5712	Concurrent Engineering	3
IE 5713	Benchmarking	3
IE 5714	Operations Research	3
IE 5715	Network Analysis	3
IE 5716	Reliability Analysis	3
IE 5717	Tool Design	3
IE 5718	Scheduling	3
IE 5719	Replacement Models	3
IE 5720	Real Analysis	3
IE 5721	Ergonomics	3
IE 5723	Energy Management	3
IE 5724	Organizational Behavior	3
IE 5725	Supply Chain Management	3
IE 5727	Business Process Re-engineering	3
IE 5728	Management Information System	3
IE 5729	Combinatorial Optimization	3
IE 5731	Quality Assurance	3
IE 5732	Statistical Quality Control	3
IE 5733	Project Management	3

E 5737	Six Sigma Methodologies	3
IE 5739	Cost & Management Accounting	3
IE 5740	Total Quality Management	3
IE 5741	Project Evaluation & Feasibility Analysis	3
IE 5742	CAD/CAM	3
IE 5743	Business Forecasting	3
IE 5744	Operations Management	3
IE 5745	Environmental Management & Safety	3
IE 5747	Marketing Management	3
IE 5762	Computer Integrated Manufacturing	3
IE 5766	Artificial Intelligence with applications	3
IE 5770	Mathematics	3
IE 5780	Computer Applications	3
IE 5784	Deterministic Optimization	3
IE 5788	Stochastic Optimization	3
IE 5790	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
IE 5799	Master Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
IE 6799	Ph.D. Thesis	36

ENGINEERING MANAGEMENT

Engineering management program at Department of Industrial Engineering, University of Engineering and Technology, Peshawar, is designed for engineers who seek broad education in modern management techniques and tools for efficient operation of scientific and technical organizations to be ahead of competitors. In addition, this program is an interface between business sectors and engineering.

Management skills are mandatory for engineers to lead organizations effectively and make good technology related investment decisions. The top executives of the world class organizations need to have both technical and management skills for innovating and optimizing their products. Indeed, innovation and optimization of business processes leads to customer retention and satisfaction. In addition, engineering management tools enable engineers in conceiving an idea and shape them into reality by having business and entrepreneurial skills. Engineers with management knowledge also serve a mediator between technical and business people of the organization.

The Engineering management program will enhance the knowledge of those interested in this area and will also provide us with a platform for relevant research in the field of Engineering Management. Furthermore, this program will help students in becoming successful professionals in engineering disciplines and academia by giving the students the opportunity to present the industrial problems and discuss the business challenges.

Program Mission Statement:

“To produce quality graduates who are capable of serving the society through integrity, ethical conduct, creating knowledge, innovation, and excellence”.

Program Vision Statement:

"The Engineering Management program of Department of Industrial Engineering, UET Peshawar will be a world class graduate program where students, faculty, alumni can fulfill their passion for academic excellence and gearing towards nation's benefit".

Degree Program

M.Sc in Engineering Management

Eligibility Criteria

Students of all engineering disciplines are eligible to take admission in the program.

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
IE 5709	Human Resource Management	3
IE 5725	Supply Chain Management	3
IE 5733	Project Management	3
IE 5791	Risk Analysis and Management	3
IE 5794	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
IE 5744	Operations Management	3
IE 5793	Management of Technical Organizations	3
IE 5794	Technology Management	3
IE 5799	Financial Management	3
IE 5701	Engineering Economics	3
IE 5713	Benchmarking	3
IE 5714	Operation Research	3
IE 5723	Energy Management and Sustainability	3
IE 5724	Organizational Behavior	3
IE 5727	Business Process Re-engineering	3
IE 5728	Management Information System	3

IE 5739	Cost & Management Accounting	3
IE 5740	Total Quality Management	3
IE 5741	Project Evaluation & Feasibility Analysis	3
IE 5743	Business Forecasting	3
IE 5745	Environmental & Safety Management	3
IE 5747	Marketing Management	3
IE 5760	Statistics and its Tools	3
IE 5789	Legal Engineer	3
IE 5795	Systems Engineering and Management	3
IE 5796	Knowledge Management	3
IE 5797	Decision making for Engineers	3
IE 5798	Conflict Management and Negotiations	3
IE 5790	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
IE 5799	Master Thesis	6

US-Pakistan Center for

Advanced Studies in Energy

Energy is prime mover of the current global societal and industrial developments. With rapid pace of human development and the modern needs, the competence level of the engineers should also be in accordance with the demand of the day. Continuous efforts are made globally to enhance the understanding, and capability of the professionals working in the field of energy generation as well as conservation. The USPCAS-E was founded with the mission to address the energy issues of Pakistan, specifically, and contribute the global efforts on energy in general. The USPCAS-E aims to focus on applied research relevant to Pakistan's energy needs, undertake sustainable policy formulation, and serves as bridge between the government, industry and academia. The USPCAS-E is a partnership between the University of Engineering and Technology, Peshawar (UET); National University of Science and Technology (NUST), Islamabad; and U.S. partner, Arizona State University (ASU). At the end of project, the centers at NUST and UET Peshawar will be sustainable hubs to address energy related issues. Collaboration between the partner USPCAS-E universities and the Higher Education Commission will help ensure institutionalization and sustainability of the center. New state of the art M.Sc. programs have been introduced which are enlisted as following:

M.Sc. Renewable Energy Engineering

M.Sc. Energy Management and Sustainability

M.Sc. Thermal System Engineering

M.Sc. Electrical Energy System Engineering

Following Ph.D. Degree Programs are also offered at UPCAS-E:

Ph.D. Renewable Energy Engineering

Ph.D. Electrical Energy System Engineering

The USPCAS-E, UET Peshawar supports Pakistan's economic development by strengthening relevance and responsiveness of university product including applied and policy research and skilled graduates, to the needs of public and private sectors. The Center encourages and empowers women engineers and researchers, and promotes gender equity.

Director

Dr. Adnan Daud Khan	Ph.D. (Italy)

Associate Professor

Dr. Adnan Daud Khan	Ph.D. (Italy)

Assistant Professors

Dr. Muhammad Noman	Ph.D. (Italy)
Dr. Khurshid Ahmad	Ph.D. (China)
Dr. Muhammad Arif	Ph.D. (France)
Dr. Affaq Qamar	Ph.D. (Italy)
Dr. Muhammad Hassan	Ph.D. (China)
Dr. Zohaib ur Rehman Afridi	Ph.D. (China)

Lecturers

Dr. Muhammad Aslam	Ph.D. (Pak)
Dr. Kaleem Ullah	Ph.D. (Pak)
Dr. Amir Naveed Khattak	Ph.D. (Pak)
Dr. Atif Sardar	Ph.D. (Pak)
Engr. Noor Muhammad	M.Sc. (Pak)
Engr. Zafar Ullah Khan	M.Sc. (Pak)

Laboratory Engineers

Dr. Kamran Shereen	Ph.D. (Pak)
Engr. Muhammad Saad Rehan	M.Sc. (Pak)
Engr. Fahad Ullah Zafar	B.Sc. (Pak)
Engr. Maoz	M.Sc. (Pak)

M.Sc. & Ph.D. in Renewable Energy Engineering

The world is undergoing a smooth but rapid transition from producing power from fossil fuels – which are quickly depleting and pose serious environmental threats – to more abundantly available Renewable Energy resource, to fulfill its ever growing energy demand. These sources are not only interminable, but are also environment friendly. These sources provide opportunity for promoting distributed power generation to avoid power transmission and distribution losses and other associated complexities. Furthermore, these sources are turning out to be more economical, and in many instances the costs of power generation from these sources is cheaper compared to that from the conventional sources. Therefore, it is the need of the hour to develop competent and knowledgeable human resource to takeup the transition challenges and fulfill the emerging market demands for skilled workforce in these areas. Pakistan is blessed with abundant solar, wind, hydro and biomass resource, and thus it can easily fulfill its growing energy demands if these sources are properly harnessed. With these objectives in mind, USPCAS-E UET Peshawar would like to commence Master and Ph.D. programs in Renewable Energy Engineering as per the course curriculum below.

Objectives:

The objectives of the Renewable Energy Engineering program is to develop capacity building in a rapidly developing knowledge bank for addressing the ever rising demand for energy through modern renewable technologies. This objective is to be achieved through continuously updating the course curriculum of the program to ensure relevance to the latest market demands and generation of new technologies, as well as encouraging professional growth and development of the students and researchers. The program is designed to satisfy the growing market demand for skilled manpower in the new, clean and economical energy sources.

Outcomes:

1. Graduates will be able to apply the knowledge and principles of renewable energy engineering and use appropriate technologies for the betterment of the society.
2. Recognize international and national issues related to global warming and environmental degradation, in respect of energy generation and consumption.
3. Solve problems by thinking critically, creatively and reflectively and communicate solutions in an effective manner.
4. Apply the science and engineering principles for solving the energy related issues specific to Pakistan and other developing countries.
5. Select and apply appropriate techniques, resources and modern engineering tools, including prediction and modeling, to design, analyze and experimentally verify the renewable energy systems and their components output.
6. Apply international standards, practices and conventions appropriate to energy policies, like Kyoto protocol and Paris agreements.

7. Understand the impact of renewable energy solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.

Focus Areas:

Solar PV, Solar Thermal, Wind, Biomass, Hydro, Geothermal, Renewable Energy Policy, Electrical Systems, Energy Management, Energy Materials, Environmental Impacts, Fuel Cells, Energy Storage.

Eligibility Criteria and Requirements for M.Sc.

- B.Sc. in Energy Engineering
- B.Sc. in Mechanical Engineering
- B.Sc. in Chemical Engineering
- B.Sc. in Electrical Engineering
- B.Sc. in Mechatronics Engineering
- B.Sc. in Material Engineering
- B.Sc. in Agricultural Engineering
- Or any other relevant B.SC. Engineering degree

Eligibility Criteria for Ph.D.

- M.Sc. in Renewable Energy Engineering
- M.Sc. in Mechanical Engineering
- M.Sc. in Chemical Engineering
- M.Sc. in Electrical Engineering
- M.Sc. in Mechatronics Engineering
- M.Sc. in Material Engineering
- M.Sc. in Agricultural Engineering
- Any other relevant M.S./M.Sc./M.Phil. Engineering degree

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
REE 5101	Renewable Energy Technologies	3
REE 5115	Applied Photovoltaics Engineering	3
REE 5129	Environmental Impact Assessment for Energy Systems	3
REE 5108	Wind Energy Engineering	3
EP 5301	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
REE 5102	National/Provincial Energy Policies, Supply/Demand & Planning	3
REE 5103	Management of Technology & Innovation	3
REE 5104	Power Electronics and Machines	3
REE 5111	Biomass Technologies	3
REE 5118	Electrical and Optical Properties of Materials	3
REE 5131	Micro hydro power systems	3
REE 5207	CFD for Renewable Energy	3
REE 5209	Solar Thermal Energy	3
REE 5210	Hydro Power Engineering	3
REE 5212	Geothermal Engineering	3
REE 5216	Renewable Energy Mega Power Plants	3
REE 5218	Electrical and Optical Properties of Materials	3
REE 5219	Materials Characterization Techniques	3

REE 5220	Advanced Topics in Energy Storage and Conversion	3
REE 5222	Operation & Maintenance of Renewable Energy Systems	3
REE 5226	Risk and Reliability Engineering	3
REE 5227	Energy Quality Management and Standards	3
REE 5228	Energy Audit and Planning	3
REE 5229	Environment Impact assessment for Energy Systems	3
REE 5230	Development & Evaluation of Renewable Energy Projects	3
REE 5232	Artificial Intelligence in Renewable Energy	3
REE 5233	Battery Technologies	3
REE 5234	Recent Advances in Solar Cells	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
EP 5399	Master Thesis	6

Ph.D. Renewable Energy Engineering

Course Code	Course Title	Credit Hours
REE 6101	Advanced Materials for Renewable Energy	3
REE 6201	Advance Topics in Renewable Energy	3
REE 6202	Advance Solar Energy Technologies	3
BSI 5101	Fehm-e-Quran I* (3 contact hours)	1
BSI 5102	Fehm-e-Quran II* (3 contact hours)	1

* BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Ph.D. Thesis		
EP 6399	Ph.D. Thesis	36

ENERGY MANAGEMENT AND SUSTAINABILITY

The University of Engineering Technology UET, Peshawar, Khyber Pakhtunkhwa Pakistan pioneers a graduate degree program, namely Master of Science in Energy Management & Sustainability (MSEMS) special emphasis on Sustainability of Energy and Environmental projects. The degree comprises of class room lectures, seminars, case studies, industrial visits, off campus professional on site problem solving activities, and optional thesis in innovative fields of power and energy management. In the MSEM & S program, participants will be given an introduction, aswell as in-depth of all essential management concepts, processes, tools and techniques relevant to the Energy & Power sectors, as well as practical knowledge where the best practices in the field of energy were imparted. The scholars shallacquire the capability to break new grounds and produce new knowledge by undertaking research work in the field of Energy management & Sustainability, specifically for Khyber Pakhtunkhwa and generally for Pakistan.

This Masters degree program at USPCASE, UET Peshawar mainly comprises of the following three areas.

- Energy Management: focusing mainly on framework for optimizing the overall energy system from generation to end-user usage patterns. This includes Energy management system (EnMS), energy auditing, energy modelling, energy optimization, energy efficiency and conservation.
- Sustainability: MS-EMS degree focuses on sustainable energy systems aiming to achieve the Sustainable Development Goals (SDGs) such as clean and affordable energy, smart cities, innovation, zero energy poverty etc., through energy innovation. In addition, the climate action is also addressed by assessing the energy and environmental nexus and waste to energy projects.
- Energy Policy: emphasizing on sustainable and implementable energy policies for providing clean and affordable energy. Public Private Partnership (PPP), national and international projects are the main focus areas. Furthermore, faculty and students consistently collaborate with Government bodies such as Planning Commission Islamabad, Pakhtunkhwa Energy Development organization (PEDO) and National / International oil and gas companies for policy matters on energy related issues.

Focus Areas

Energy Management, Energy Modeling, Climate change mitigation, Waste to energy, Energy Quality Management and Standards, Sustainability of Energy and Environment, Energy and Environmental Policy and Energy Economics.

Eligibility Criteria for M.Sc. in Energy Management and Sustainability

- B.S./B.Sc. Engineering
- M.Sc. Natural Sciences (Physics, Chemistry, Biology, Computer Science, Earth Sciences etc.)
- M.A. Social Sciences (Economics, Political Science)
- City and Regional Planning
- Architecture, Law, Business, Finance and Management

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
EMS 5102	Sustainable Energy Management	3
EMS 5119	Sustainable Development, Politics and Policies	3
EP 5203	Environmental Impact Assessment for Energy Systems	3
EMS 5120	Energy Policy Making and Analysis	3
EP 5301	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
EMS 5105	Energy Environment and Climate Change Mitigation	3
EMS 5104	Global Sustainability and International Obligations	3
EMS 5112	Energy Modeling, Optimization and Decision Making	3
EMS 5117	Energy Economics	3
EMS 5118	Energy and Environmental Ethics	3
EP 5102	Management of Energy Technology and Innovation	3
REE 5127	Energy Quality Management and Standards	3
EMS 5201	Strategic Organization Management (Public/Private Sector)	3
EMS 5205	World Energy Politics	3
EMS 5206	Energy Tariff and Financials Risk Management	3
EMS 5207	Energy Business Models and Marketing Strategies	3

EMS 5208	Global & Local Energy Demand Analysis	3
EMS 5209	Energy Service Companies Management	3
EMS 5210	Energy Regulatory Affairs & Business Laws	3
EMS 5211	Energy Project Management (Public & Private)	3
EMS 5213	Energy Security Studies	3
EMS 5216	Energy Business Management	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
EP 5399	Master Thesis	6

M.Sc. Thermal System Engineering

Introduction:

The aim of M.Sc. TSE program is train engineers in energy technologies, including a range of thermal-based energy technologies, in order to meet societal and market needs. Efficient use of thermal energy is an increasingly popular area of interest for engineers and technologists. Therefore, this program is aimed at equipping next generation of engineers with the state of the art knowledge of energy conversion, efficiency and conservation. The program will provide students with set of courses that will improve their capacity to analyze and design innovative thermal energy systems. These systems include, but are not limited to, energy conversion systems and their fuels, refrigeration, combustion, and solar energy. The M.Sc. specialization in TSE primarily covers advanced aspects of energy system modelling, heat- and mass transfer, fluid mechanics, thermodynamics, control engineering and experimental work with focus on different components and energy system aspects. The themes for the three semesters are particularly focused on Thermal energy and process engineering and in-depth understanding of the technologies and scientific disciplines involved in energy conversion, utilization and transport.

Focused Areas:

Thermodynamics, Thermo-Fluid, Power Plants, HVAC & R, Energy Efficiency, Enhanced Heat Transfer, Computational Fluid Dynamics, Micro/NanoFludics

Eligibility Criteria:

B.Sc. Engineering in Mechanical, Chemical, Mining, Industrial, Energy, Mechatronics, Aerospace, Petroleum, Any other relevant B.Sc. Engineering degree.

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
TSE 5101	Advanced Thermodynamics	3
TSE 5102	Thermal Power Plants Design and Operation	3
TSE 5103	Fuels and Combustion	3
TSE 5106	Computational Fluid Dynamics for Thermal Energy Systems	3
EP 5301	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
TSE 5104	Advanced Fluid Dynamics	3
EP 5203	Environmental Impact Assessment for Energy Systems	3
TSE 5108	Energy Economics and Policy	3
TSE 5110	Advance Heat Transfer	3
TSE 5115	Thermal Characterization Techniques	3
TSE 5118	Energy Audits	3
TSE 5205	Clean Coal Technologies	3
TSE 5209	Rotodynamic Machinery	3
TSE 5207	Fuel Cell and Hydrogen Technology	3
TSE 5211	Advanced Topics in Thermal System Engineering	3

TSE 5212	Thermal Desalination Systems	3
REE 5209	Solar Thermal Energy	3
REE 5211	Biomass Technologies	3
REE 5212	Geothermal Engineering	3
TSE 5216	Advanced Heating Ventilation and Air Conditioning	3
TSE 5217	Internal Combustion Engines	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
EP 5399	Master Thesis	6

M.Sc. & Ph.D. in Electrical Energy Systems Engineering

Introduction

Pakistan power system, ranging from generation, transmission, distribution and utilization has many shortcomings. Moreover, less work has been done on integrating renewable energy resources with the conventional system. This specialized energy program will specifically work on the improvement of efficiencies of existing power plants and in helping the integration of various energy sources into and rehabilitation of the present transmission and distribution system. The courses and research will help students in understanding the indigenous problems associated with electrical power system and solutions that will uplift the operations of electrical power system.

Focus Areas

Operation & Control of Power Systems, Power System Stability, Power System Transients Analysis, Power System State Estimation, Renewable Energy System (PV System, Wind Power System etc), HVAC, HVDC, High Voltage Technology, Distributed Generation, System Design and Regulation, Advanced Power System Protection, Integration of Renewable Energy resources, Power Quality, Smart Grid Technologies (Power and Communication) and Power Electronics.

Eligibility Criteria (M.Sc)

- B.Sc. Electrical Engineering
- B.Sc Energy Engineering

Eligibility Criteria (Ph.D)

- MS/M.Sc. in Electrical Energy System Engineering/ Electrical Engineering/Electronic Engineering/Energy Engineering

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
EESE 5101	Transmission and Distribution	3
EESE 5102	Power System Operation and Planning	3
EESE 5120	Power System Transformers	3
EESE 5110	Power System Modeling and Analysis	3
EP 5301	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
EESE 5103	Power System Stability	3
EESE 5123	Smart Grid	3
EESE 5104	Advance Power Electronics	3
EESE 5106	Renewable Electrical Energy Systems	3
EESE 5112	Power System Protection and Switchgear	3
EESE 5124	Power Distribution System Design	3
EESE 5205	Electrical Energy Market	3
EESE 5207	Distributed Generation	3
EESE 5208	Electrical Energy and Environmental Systems	3
EESE 5211	Analysis of Faulted Power System	3

EESE 5213	HVDC Transmission Systems	3
EESE 5214	HVAC Transmission Systems	3
EESE 5215	Over voltages and Transients	3
EESE 5216	Power System Reliability	3
EESE 5217	Power System Control	3
EESE 5218	Electrical Insulation Engineering	3
EESE 5219	High Voltage Engineering	3
EESE 5221	Advanced Electrical Machines	3
EESE 5222	Electrical Power Generation	3
EESE 5225	Power Quality	3
EESE 5226	Power System Substation	3
EESE 5227	Generation and Integration of Renewable Energy	3
EESE 5228	Computer Modeling of Electrical Power System	3
EESE 5229	Control of Voltage Source Converter	3
EESE 5230	Communication and Control in Electrical Power Systems	3
EESE 5231	Advanced Topics in Renewable Energy Integration	3
EESE 5232	Advanced Topics in Power Electronics	3
EESE 5234	Network Based Grid System	3
EESE 5235	Automated Distributed Power System Using Data Communication	3
EESE 5233	Engineering Economics and Management of Electrical Power System	3
EP 5102	Management of Technology and Innovation	
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

Master Thesis

Course Code	Course Title	Credit Hours
EP 5399	Master Thesis	6

Ph.D. Electrical Energy Systems Engineering

Course Code	Course Title	Credit Hours
REE 6201	Advanced Power System Stability	3
REE 6202	Automated Distributed Power System Using Data Communication	3
BSI 5101	Fehm-e-Quran I* (3 contact hours)	1
BSI 5102	Fehm-e-Quran II* (3 contact hours)	1

* BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Ph.D. Thesis		
EP 6399	Ph.D. Thesis	36

FACULTY OF **ARCHITECTURE, ALLIED SCIENCES AND HUMANITIES**

MESSAGE FROM THE DEAN

Welcome to the Faculty of Architecture, Allied Sciences & Humanities. The primary mission of a university education is to transform a human being to the uppermost level of intellect and human values through best practices of Human Capital Management, Meaningful Education, Technical Training, and Research Exposures. In light of the vision and mission of the University of Engineering and Technology, Peshawar, the Faculty of Architecture, Allied Sciences & Humanities aims to achieve these objectives in the realms of Physical & Natural Sciences, Mathematics, and Design by synergizing Architecture and Applied Sciences with Art and Humanities and encapsulating them in the garland of universal knowledge perspectives.

The Faculty of Architecture, Allied Sciences & Humanities comprises of three departments, including the Department of Architecture at Peshawar and Abbottabad Campus and the Department of Basic Sciences & Islamiat at the main campus, Peshawar. The Department of Basic Sciences & Islamiat offers successful MS and Ph.D. programs in Mathematics. The department also offers 30% of the total courses for different engineering and non-engineering disciplines. The Department of Architecture offers B. Architecture, Interior Design, and M. Architecture degree programs with the aim to prepare professionals who uphold a tradition of great civilization, ready to cope with contemporary needs, creating a skyline based on historical lessons, and addressing the prevailing issues with a perspective for future challenges.

The programs offered by the Faculty of Architecture, Allied Sciences & Humanities are a beautiful blend of natural and social sciences with Architecture and Design. The faculty aims to impart knowledge through state-of-the-art learning support systems that ensure increasing employability for the graduates at national and international levels. With high quality Abstract and Applied Research output, the faculty will strive to further improve the departmental, faculty, and university rankings at national and international levels.

Prof. Dr. Bashir Alam
Dean, Faculty of Architecture,
Allied Sciences & Humanities

Department of Architecture (Abbottabad Campus)

Department of Architecture was established in April 2004 with the commitment to prepare a bunch/ team of trained professionals in the field of architecture and planning to meet the challenges of rapidly modernizing contemporary building construction market in a more efficient yet sustainable manner. Department has not only been fulfilling the needs of Khyber Pakhtunkhwa, but also paying its share to the capital city of Pakistan in terms of providing highly trained young professionals in the specialized areas of architectural design, construction management, digital graphical presentations, and urban design. The Department aims at playing a central role in responding to the challenges of contemporary building as well as construction industry in key areas like architecture design, urban landscape planning and design, construction project management and sustainable building services. Equipped with modern computer, GIS and material labs, and, an up-to-date library, the Department offers a Postgraduate Degree Program (M. Arch) in the domain of architecture.

Department of Architecture envisions providing highly trained professionals in the field of architecture who will play their role in the development of the Country in a challenging scenario of climate change and sustainable utilization of material resources without comprising the satisfaction of human needs at an optimum level and relevant interests of various stakeholders such as institutions, educators and students, members of the practicing profession (IAP), regulatory and registration body (PCATP), building industry, and last but not the least, the society at large.

MASTER OF ARCHITECTURE

Program Overview

The program, offering both specialized and general studies options, is a strategic response to the multifaceted needs and aspirations of architecture students and the evolving dynamics of the profession. Both

Assistant to Dean

Ar. Shabbir-u-Qureshi	M. Arch (Pak)

Assistant Professors

Ar. Shabbir-u-Qureshi	M. Arch (Pak)
Ar. Shahid Mansoor Khan	MS (Pak)
Dr. Ghousia Saeed	Ph.D. (UK)
Engr. Akhter Munir	M.Sc (Pak)
Ar. Muhammad Iqbal	M.Sc. (Pak)
Ar. Muhammad Faisal Rehman	M.Sc. (Pak)

Lecturers

Engr. Irum Nasim	M.Sc. (UK)
Ar. Habib Ullah	M. Arch (Pak)
Ar. Syed Mazhar Ali Shah	M. Arch (Pak)

Lab Architect

Ar. Syyed Mansoor Ali Shah	M. Arch (Pak)

options are designed to equip graduates with advanced knowledge and research skills in architecture. In the specialized option, the candidates have great flexibility to select the area of their own choice for in-depth studies. This option strengthens the graduates in their chosen architectural careers, while also contributing to the advancement of the architectural discipline in Pakistan and on the global stage. The M. Arch (General) option covers some important areas but not any specific or specialized area. It provides a broad-based understanding of the field and its connections to other disciplines, enhancing the versatility and adaptability of an evolving professional. In both options, the program structure includes a combination of four core courses and four elective courses with a thesis. In M. Arch (specialized), the core courses, elective courses, and thesis are aligned with the specialization area. In the general option of M.Arch, the core courses are diversified, and elective courses contribute to these areas. In this option, the thesis must address one of the core areas. Both options are designed for 32 credit hours (CH) and shall be considered equivalent for all practical purposes.

M. Arch (Specialization)

M. Arch (specialization) is an option where graduates have an opportunity to excel in a particular area of architecture. In this option, four streams are initially allowed and are in no way restricted. The schools may consider other options considering the availability of faculty and other resources. Students will select a specialized area from the options offered by the department. The total credit hours requirement is 32. The minimum and maximum duration for degree completion is 18 and 48 months. The research tracks/streams are:

1. Architectural Heritage and Conservation (AHC)
2. Responsive Architecture (RA)
3. Energy Efficient Architecture (EEA)
4. Building Technology (BT)

Course Requirements and Credit Hours

- Four (04) core courses of 12 CH related to area of specialization
- Four (04) elective courses of 12 CH from the elective list of respective specialization
- Fehm-e-Quran I & II, two courses of 1 CH each
- A thesis of six (06) credit hours aligned with the area of specialization

Core Courses (12 Credits)

- Students are required to take four (04) core courses offered by the department.
- The department may add a maximum of four (04) more core courses to the list given above according to the specialized area of the faculty.

Elective Courses (12 Credits)

- Four (04) elective courses from the list of the respective specialization. Students can choose four (04) elective courses from a range of elective courses offered by the department.
- The list of the elective courses for each specialization is given below. The list of elective courses may be enhanced according to the availability of faculty.
- Elective courses must be offered according to the expertise available in the department, but these must synchronize with the core courses.

Degree Title

a) M. Arch (Specialization)
   1. Architectural Heritage and Conservation
   2. Responsive Architecture
   3. Energy Efficient Architecture
   4. Building Technology

b) M. Arch (General)

Eligibility Criteria for Admission in Master of Architecture

A candidate seeking admission in the M. Arch. program must have at least bachelor's degree either in Architecture from a PCATP recognized institution, or in related discipline from HEC recognized institution, considered equivalent to B. Arch. by PCATP. In case of a foreign degree, the candidate must obtain an equivalence certificate from Higher Education Commission and verify the same from PCATP prior to applying for the admission. A minimum CGPA of 2.0/4.0 (in case of semester system) or 60% marks (in case of annual system) in the relevant bachelor degree is also a pre requisite for admission. The student must clear the department admission test and interview with 60 and 50 percentage marks respectively.

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
ARC 6402	Architectural Heritage and Conservation	3
ARC 6408	Conservation Theory, History & Technology	3
ARC 6403	Heritage Legislation and Policies	3
ARC 6004	Architectural Research Methods	3
BSI 5101	Fehm-e-Quran I* (3 contact hours)	1
BSI 5102	Fehm-e-Quran II* (3 contact hours)	1

* BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (four courses from the given list)

Course Code	Course Title	Credit Hours
ARC 6408	Conservation of Urban Built Heritage	3
ARC 6409	Advanced Conservation Technology	3
ARC 6410	Conservation Materials and Techniques	3
ARC 6411	Art and Architecture of a Core City in Pakistan	3
ARC 6412	Religious Architecture of a Historical Period in Pakistan	3
ARC 6413	History and Architecture of Cantonments in Pakistan	3
ARC 6414	Heritage of Forts in Pakistan	3
ARC 6415	History and Development of Urban Form	3
ARC 6416	Conservation and Adaptive Reuse	3
ARC 6417	Colonial Architectural Heritage in Pakistan	3
ARC 6418	Building Technology and Development during British India	3
ARC 6419	Modern Technologies and Conservation	3

Master Thesis

Course Code	Course Title	Credit Hours
ARC 6005	Master Thesis (12 contact hours)	6

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
ARC 6323	Climate Responsive Architecture	3
ARC 6324	Human Centric Design	3
ARC 6325	Responsive Design & Built Environment	3
ARC 6004	Architectural Research Methods	3
BSI 5101	Fehm-e-Quran I* (3 contact hours)	1
BSI 5102	Fehm-e-Quran II* (3 contact hours)	1

* BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (four courses from the given list)

Course Code	Course Title	Credit Hours
ARC 6308	Disaster Resilience & Risk Assessment Strategies	3
ARC 6309	Dynamic Facades Design in a Specific Climate Zone	3
ARC 6310	Smart Materials and Responsive Structures	3
ARC 6311	Human Centered Design for Responsive Spaces	3
ARC 6312	Responsive Urban Planning and Sustainable Cities	3
ARC 6313	Responsive Interior Architecture	3
ARC 6314	Day lighting and Natural Ventilation Strategies	3
ARC 6315	Responsive Landscape Architecture	3
ARC 6316	Acoustic Design for Responsive Environments	3
ARC 6317	Urban Resilience and Climate Adaptation	3
ARC 6318	Responsive Design for Cultural and Artistic Spaces	3
ARC 6319	Responsive Design for Adaptive Reuses Projects	3
ARC 6320	Responsive Design and Biophilic Architecture	3
ARC 6321	Responsive Architecture Case Studies and Best Practices	3
ARC 6322	Responsive Healthcare Facility Design	3

Master of Architecture Thesis / Design

Course Code	Course Title	Credit Hours
ARC 6005	Master Thesis (12 contact hours)	6

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
ARC 6527	Building Performance Simulation& Monitoring Techniques	3
ARC 6216	Sustainable Building Design	3
ARC 6226	Building and Urban Energy Modeling	3
ARC 6004	Architectural Research Methods	3
BSI 5101	Fehm-e-Quran I* (3 contact hours)	1
BSI 5102	Fehm-e-Quran II* (3 contact hours)	1

* BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (four courses from the given list)

Course Code	Course Title	Credit Hours
ARC 6208	Net-Zero Energy Building Design	3
ARC 6209	Advanced Building Envelope Technologies	3
ARC 6210	Energy Modelling and Simulation	3
ARC 6211	Day lighting and Electric Lighting Design	3
ARC 6212	Building Commissioning for Energy Efficiency	3
ARC 6213	Advanced Thermal Comfort and Indoor Air Quality	3
ARC 6214	Building Energy Auditing and Retrofits	3
ARC 6215	Renewable Energy Integration in Buildings	3
ARC 6216	Sustainable Building Design	3
ARC 6217	Sustainable Materials and Life Cycle Assessment	3
ARC 6218	Building Resilience and Climate Adaptation	3
ARC 6219	Advanced Building Controls and Automation	3
ARC 6220	Sustainable Building Economics and Finance	3
ARC 6221	High-Performance Energy Efficient Buildings	3
ARC 6222	Sustainable Urban Planning and High-Performance Communities	3

ARC 6223	Low-Income Housing and Energy Efficient Solutions	3
ARC 6224	Building Energy Management Systems	3
ARC 6225	Circular Economy and Sustainability	3

Master Thesis

Course Code	Course Title	Credit Hours
ARC 6005	Master Thesis (12 contact hours)	6

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
ARC 6509	Building Information Modelling	3
ARC 6528	Advanced Technology in Architecture	3
ARC 6529	Building Systems Integration	3
ARC 6004	Architectural Research Methods	3
BSI 5101	Fehm-e-Quran I* (3 contact hours)	1
BSI 5102	Fehm-e-Quran II* (3 contact hours)	1

* BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (four courses from the given list)

Course Code	Course Title	Credit Hours
ARC 6508	Smart Building Systems	3
ARC 6509	Building Information Modeling (BIM) and its applications	3
ARC 6510	Building Automation & Control Systems	3
ARC 6511	Smart Materials	3
ARC 6512	Accessibility Technologies	3
ARC 6513	Virtual Reality and Augmented Reality	3
ARC 6514	Advanced Construction Materials and Techniques	3
ARC 6515	Sustainable Building Technologies	3
ARC 6516	Digital Tools for Construction & Project Management	3
ARC 6517	Construction Safety and Risk Management	3
ARC 6518	Green Building Certifications and Sustainability	3
ARC 6519	Innovations in Structural Engineering	3
ARC 6520	Fire Protection and Life Safety Systems	3
ARC 6521	Modular and Prefabricated Construction	3
ARC 6522	Advanced Environmental Technologies	3

ARC 6523	Building Maintenance and Facility Management	3
ARC 6524	Building Systems Performance Analysis	3
ARC 6525	Precast and Pre-Stressed Concrete Products for building	3
ARC 6526	Green Materials and Construction	

Master Thesis

Course Code	Course Title	Credit Hours
ARC 6005	Master Thesis (12 contact hours)	6

Master of Architecture (General)

M. Arch (General) provides a broad understanding of various emerging areas in architecture and focuses on one of the areas in the research thesis. M. Arch (General), is designed for 32 credit hours with four core, four elective courses, and two courses of Fehm-e-Quran I & II of two credit hours (or 2 CH course for non-muslims as substitute for Fehm-e-Quran I & II). The elective courses are required to strengthen the core courses. After the completion of core and elective courses students are required to complete a thesis aligned with one of the core areas.

COURSE REQUIREMENTS

- Four (04) core courses of 12 CH
- Four (04) elective courses of 12 CH
- Two (02) courses of Fehm-e-Quran I and Fehm-e-Quran II, 02 CH (or 2 CH course for non-muslim students)
- Master Thesis of six (06) CH

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
ARC 6402	Architectural Heritage and Conservation	3
ARC 6005	Responsive Architecture	3
ARC 6004	Architectural Research Methods	3
ARC 6006	Energy Efficient Architecture	3
BSI 5101	Fehm-e-Quran I* (3 contact hours)	1
BSI 5102	Fehm-e-Quran II* (3 contact hours)	1

* BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (four courses from the given list)

Course Code	Course Title	Credit Hours
ARC 6403	Heritage Legislation and Policies	3
ARC 6408	Conservation Theory, History and Technology	3
ARC 6323	Climate Responsive Architecture	3
ARC 6324	Human Centric Design	3
ARC 6325	Responsive Design & Built Environment	3
ARC 6527	Building Performance Simulation and Monitoring Techniques	3
ARC 6228	Sustainable Building, Codes and Certifications	3

ARC 6226	Building and Urban Energy Modelling	3
ARC 6509	Building Information Modelling	3
ARC 6528	Advanced Technology in Architecture	3

Master Thesis

Course Code	Course Title	Credit Hours
ARC 6005	Master Thesis (12 contact hours)	6

Semester-wise breakup of the courses

Semester 1: Core Courses M. Arch (Architectural Heritage and Conservation)				
Course Code	**Course Title**	**Contact Hours**		**Credit Hours**
		Theory	**Practical**	
ARC 6402	Architectural Heritage and Conservation	3	0	3
ARC 6004	Architectural Research Methods	3	0	3
ARC 6403	Heritage Legislation and Policies	3	0	3
ARC 6408	Conservation Theory, History, and Technology	3	0	3
BSI 5101	Fehm-e-Quran I* (3 contact hours)	1	0	1
	Semester Total C.H.	13	0	13

Semester 1: Core Courses M. Arch (Responsive Architecture)				
Course Code	**Course Title**	**Contact Hours**		**Credit Hours**
		Theory	**Practical**	
ARC 6323	Climate Responsive Architecture	3	0	3
ARC 6004	Architectural Research Methods	3	0	3
ARC 6324	Human Centric Design	3	0	3
ARC 6325	Responsive Design & Built Environment	3	0	3
BSI 5101	Fehm-e-Quran I* (3 contact hours)	1	0	1
	Semester Total C.H.	13	0	13

Semester 1: Core Courses M. Arch (Energy Efficient Architecture)				
Course Code	**Course Title**	**Contact Hours**		**Credit Hours**
		Theory	**Practical**	
ARC 6527	Building Performance Simulation & Monitoring Techniques	3	0	3
ARC 6004	Architectural Research Methods	3	0	3
ARC 6216	Sustainable Building Design	3	0	3
ARC 6226	Building and Urban Energy Modeling	3	0	3
BSI 5101	Fehm-e-Quran I* (3 contact hours)	1	0	1
	Semester Total C.H.	13	0	13

Semester-wise breakup of the courses

Semester 1: Core Courses M. Arch (Building Technology)				
Course Code	**Course Title**	**Contact Hours**		**Credit Hours**
		Theory	**Practical**	
ARC 6509	Building Information Modelling (BIM) and its applications	3	0	3
ARC 6004	Architectural Research Methods	3	0	3
ARC 6528	Advanced Technology in Architecture	3	0	3
ARC 6529	Building Systems Integration	3	0	3
BSI 5101	Fehm-e-Quran I* (3 contact hours)	1	0	1
	Semester Total C.H.	13	0	13

Semester 1: Core Courses M. Arch (General)				
Course Code	**Course Title**	**Contact Hours**		**Credit Hours**
		Theory	**Practical**	
ARC 6402	Architectural Heritage and Conservation	3	0	3
ARC 6005	Responsive Architecture	3	0	3
ARC 6004	Architectural Research Methods	3	0	3
ARC 6006	Energy Efficient Architecture	3	0	3
BSI 5101	Fehm-e-Quran I* (3 contact hours)	1	0	1
	Semester Total C.H.	13	0	13

Semester 2: Elective Courses M. Arch (Specialization) & M. Arch (General)				
Course Code	**Course Title**	**Contact Hours**		**Credit Hours**
		Theory	**Practical**	
ARC xxx	From elective list	3	0	3
ARC xxx	From elective list	3	0	3
ARC xxx	From elective list	3	0	3
ARC xxx	From elective list	3	0	3
BSI 5102	Fehm-e-Quran II* (3 contact hours)	1	0	1
		13	0	13

* 2 CH course for non-muslims as alternatives to Fehm-e-Quran I & II

Semester 3: Thesis M. Arch (Specialization) or M. Arch (General)				
Course Code	Course Title	Contact Hours		Credit Hours
		Theory	Practical	
ARC 6005	Master Thesis	0	12	6
	Semester Total C.H.	0	12	6

Total C.H. for M. Arch Program	**32**

Department of

Basic Sciences and Islamiat

(Peshawar Campus)

The Department of Basic Sciences and Islamiat UET, Peshawar is functioning since 1980, teaching basic sciences and humanities courses to the students in various Engineering and Non-Engineering Departments of the University. The Department launched Postgraduate Degree Programs (M.Phil and Ph.D.) in Applied Mathematics in 2009, since then the Department is producing a high quality of scholars meeting national and international standards who are well versed with the needs of the society. Being a degree awarding and a supporting department, it carries a tremendous amount of teaching and research load simultaneously.

In addition to teach foundation courses to undergraduate students, the Department also offers various courses on postgraduate level, like Mathematical Methods, Numerical Linear Algebra, Applied Functional Analysis, Integral Transforms, Mathematical Modeling, Advanced Fluid Dynamics, Partial Differential Equations, Numerical Solutions of PDEs, Advanced Complex Analysis, Meshless Methods, Mathematical Biology, Non-Linear Dynamics and many more. The Department of Basic Sciences and Islamiat provides opportunities for students to carry out research in different areas of Applied Mathematics. Some of them are: Computational Numerical Analysis, General Relativity & Cosmology, Image Processing, Mathematical Biology, Optimization Techniques, Differential Equations, Fluid Dynamics etc.

The Department of Basic Sciences and Islamiat has highly qualified faculty members, who have got their terminal degrees from national and international prestigious Universities. Mathematical life at the department is very active. It comprises original research, discussions, lectures, and teaching at many levels. Faculty is deeply committed to superior research in mathematics and the scientific excellence of the faculty is well recognized in the mathematical community. Large segments of current mathematical research are represented in the Department by the active research programs and interests of the faculty members. The Department has strengths and pursues original investigations in Computational Mathematics, Numerical

Chairman

Prof. Dr. Ali Muhammad	Ph.D. Mathematics (Pak)

Meritorious Professor

Prof. Dr. Siraj ul Islam	Ph.D. Mathematics (Pak)

Professors

Prof. Dr. Ali Muhammad	Ph.D. Mathematics (Pak)

Associate Professors

Dr. Marjan ud Din	Ph.D. Mathematics (Pak)
Dr. Rehan Ali Shah	Ph.D. Mathematics (Pak)
Dr. Noor Badshah	Ph.D. Mathematics (UK)
Dr. Muhammad Humayun	Ph.D. Chemistry (Pak)

Assistant Professors

Dr. Iltaf Hussain	Ph.D. Mathematics (Pak)
Dr. Tufail Ahmad Khan	Ph.D. Mathematics (Pak)
Dr. Muhammad Aziz Ullah	Ph.D. Islamic Studies (Pak)

Lecturers

Dr. Qayyum Shah	Ph.D. Mathematics (Malaysia)
Mr. Said Anwar Shah	MS. Mathematics (Pak)
Mr. Gul Shed	MS. Mathematics (Pak)
Mr. Atta-ur-Rehman	MS. Mathematics (Pak)
Mr. Jamal Nasir	MS. Mathematics (Pak)
Mr. Haseen Ullah Jan	M.Phil Physics (Pak)
Dr. Ehtiram ul Haq	Ph.D Physics (Pak)
Miss. Shaista	M.Phil English (Pak)

Analysis, General Relativity & Cosmology, Image Processing, Mathematical Biology, Modeling and Simulation, Graph Theory, Optimization Techniques, Differential Equations and Fluid Dynamics. The Department has achieved highest productivity in terms of publications in well-reputed international journals, national and international research collaborations, research grants and highest citations among different projects of UET, Peshawar. The Department has research collaborations with many national and international Universities and organizations.

The basic motive for the mission of the Department of Basic Sciences and Islamiat is, "The discovery of wisdom and transmission of learning".

- The Department aims at providing comprehensive knowledge of basic scientific principles, mathematical tools and developing the personalities of the students in every aspect of life.
- The Department enhances the scientific and critical thinking of the students by providing quality education and making them aware about the fundamental knowledge of core courses of Basic Sciences and humanities.

Academic Programs

- Master of Philosophy in Mathematics (M.Phil in Mathematics)
- Doctor of Philosophy in Mathematics (Ph.D. in Mathematics)

Laboratories

- Applied Physics
- Applied Mechanics
- Graduate Computer Laboratory

Research

Faculty is actively involved in research in the areas of Numerical Analysis, General Relativity & Cosmology, Image Processing, Mathematical Biology, Modeling and Simulation, Fluid Dynamics, Applied Physics and Chemistry.

ELIGIBILITY

Candidates seeking admission must have M.Sc in Mathematics (16 years) or BS four years degree from accredited Institutions, securing atleast 60% marks in annual system or atleast CGPA 2.5 in the semester system.

PH.D. DEGREE PROGRAM IN MATHEMATICS

Department of Basic Sciences intends to offer Ph.D. program in the emerging fields of applied/computational mathematics to produce researchers who are competent in terms of research productivity at national and international level.

The general rules and regulations for Ph.D. program in Mathematics will be as per rules mentioned in the Postgraduate Prospectus.

LIST OF APPROVED COURSES

Group-A: Core Courses

Course Code	Course Title	Credit Hours
BSI 5011	Partial Differential Equation	3
BSI 5025	Mathematical Statistics	3
BSI 5034	Numerical Linear Algebra	3
BSI 5028	Applied Functional Analysis	3
BSI 5091	Research Methodology*	3
BSI 5101	Fehm-e-Quran I** (for MPhil/Ph.D. students, 3 contact hours)	1
BSI 5102	Fehm-e-Quran II** (for MPhil/Ph.D. students, 3 contact hours)	1

* Research Methodology is mandatory for Plan-A only ** BSI 5103, a 2-credit hour course for non-Muslim students as alternative to BSI 5101 and BSI 5102

Group-B: Optional Courses (Minimum two courses for Plan-A and four courses for Plan-B)

Course Code	Course Title	Credit Hours
BSI 5017	Mathematical Modelling and Numerical Simulation	3
BSI 5018	Mathematical Methods	3
BSI 5679	Mathematics of Artificial Intelligence	3
BSI 5674	Advanced Fluid Dynamics	3
BSI 5671	Numerical Methods for PDE	3
BSI 5040	Integral Transforms and its Applications	3
BSI 5560	Meshless & other Advanced Numerical Methods	3
BSI 5030	Mathematical Biology	3
BSI 5058	Advanced Complex Analysis	3
BSI 5559	General Relativity	3

BSI 5673	Non-linear Dynamics and Chaos	3
BSI 5675	Advanced Numerical Methods	3
BSI 5676	Digital Image Processing (Variational)	3
BSI 5043	Theory of Splines and its Applications	3
BSI 5677	Computer Vision	3
BSI 5092	Applied Data Analysis Techniques	3
BSI 5678	Advanced General Relativity	3
BSI 5672	Numerical Grid Generation and Fluid Flow Computations	3
BSI 5558	Differential Geometry	3
BSI 5029	Multigrid Methods for Linear and Non-Linear PDES	3
BSI 5020	Statistical Decision Theory	3
BSI 5021	Parallel Algorithms	3
BSI 5090	Special Topics	3
A student may take maximum one course for Plan-A and two courses for Plan-B from other relevant programs with approval of the HoD		

M.Phil Thesis

Course Code	Course Title	Credit Hours
BSI 5099	M.Phil Thesis	6

Ph.D. Thesis

Course Code	Course Title	Credit Hours
BSI 6099	Ph.D. Thesis	36

BOARD OF ADVANCED STUDIES AND RESEARCH (BOASAR)

The Board of Advanced Studies and Research (BOASAR) was instituted as one of the authorities of the University under section 13(V) of the university ordinance. Its functions include:

- To advise the authorities on all matters connected with the promotion of advanced studies and research in the University.
- To consider and report to the authorities on the institution of research degrees in the university.
- To propose regulations regarding the award of research degrees.
- To appoint supervisors for research students and to determine the subject of their thesis.
- To receive research projects from university teachers.
- To sanction research grants against specific research projects.
- To coordinate and approve research programme and budget.
- To monitor faculty research.
- To utilize research results.

Master's and Ph.D. degree programs in selected departments are being run under the umbrella of BOASAR. Funds are provided for both faculty research and student research. Postgraduate Advisors have been appointed for each specialization to provide guidance and assistance to researchers. BOASAR also maintains regular contact with local industry and the government to help solve their technological problems.

Best Applied Research Project Award

To support and encourage faculty research in the university, an award has been instituted for the best applied research project. Principal Investigators of approved projects may apply for the award, which includes a cash award as well as a certificate and shield. Full details, including eligibility, application procedure, award criteria and details of award are available at the BOASAR office for reference.

Master Degree Program

GENERAL

The Master's degree program of the University shall extend over a period of at least three (03) semesters and a maximum of eight (08) semesters (i.e., maximum four years duration from the date of 1st registration). A total of 32 credit hours are required to complete the Master's Degree Program.

REGULATIONS

1.1 Admission

a) Master's degree program may commence in Fall and Spring semesters in an Academic Year.

b) Candidates seeking admission must have a Bachelor's Degree in a relevant Engineering discipline from an institution accredited by the Pakistan Engineering Council or Sixteen (16) years of education for Non-Engineering disciplines from an institution recognized by the HEC/National Computing Education Accreditation Council (NCEAC) or accredited by the Pakistan Council for Architects and Town Planners (PCATP).

c) University will conduct its own admission test as an eligibility condition for admission to MS/MPhil/Equivalent programs, with a passing score of 50% OR accept the GRE general / University Appointed Testing Authority (UATA) General/Equivalent tests, with a passing score of 50%.

d) Application forms available online shall be submitted to the Director Admissions on or before the due date advertised in newspapers, after which no application shall be entertained.

e) Seats for Pakistani students are given in Table-1 and seats for Afghan Refugees are given in Table-2. Total allocated seats may be filled during the Fall semester, and any remaining shall be filled during the Spring semester.

f) The final merit list shall be based on 50% BA/BSc or equivalent disciplines marks and 50% on GRE International type test or GAT (General) test organized by UATA marks or test conducted by the University. These tests scores will be valid for one academic year. In the event of a tie on merit between two or more candidates, preference will be given to the older candidate in the merit list.

g) Attested photocopies of the following documents are required to be attached (for 1st semester only) with admission/registration form:

i. B.Sc./M.Sc. Degree & Transcript of which admission is sought.
ii. PEC Registration (for Engineers only)
iii. Domicile certificate
iv. Computerized National Identity Card
v. Undertaking on Non-Judicial Stamp paper of minimum available price (not less than Rs.100/-) according to the prescribed proforma duly attested by the Oath Commissioner.
vi. Recent passport size coloured Photograph of the candidate

Table 1: Open Merit Seats Allocation

DEPARTMENT	SEATS
Civil Engineering (Peshawar Campus)	
i. Water Resources Engineering	32
ii. Environmental Engineering	32
iii. Structural Engineering	35
iv. Geo-Technical Engineering	33
v. Transportation Engineering	33
vi. Earthquake Engineering	30
National Institute of Urban Infrastructure Planning (NIUIP)	
i. Urban Infrastructure Engineering	40
ii. Urban Infrastructure Planning and Management	35
Agricultural Engineering (Peshawar Campus)	
i. Soil and Water Engineering	30
ii. Farm Machinery and Power Engineering	25
Mining Engineering (Peshawar Campus)	
I. Mining Engineering	30
Electrical Engineering (Peshawar Campus)	
i. Power Engineering	40
ii. Communication and Electronics Engineering	45
iii. Artificial Intelligence	80
Electrical Engineering (Jalozai Campus)	
i. Electronics, Communications and Computing	40
Computer Science (Peshawar Campus)	
i. Data Science and Distributed Systems	40
ii. Cyber Security	40

DEPARTMENT	SEATS
Electronics Engineering (Abbottabad Campus)	
i. Electronics Engineering	20
Computer Systems Engineering (Peshawar Campus)	
i. Information Security	30
ii. Machine Learning	30
iii. Digital and Embedded Systems	30
iv. Software Engineering	30
Mechanical Engineering (Peshawar Campus)	
i. Mechanical Engineering Design	40
ii. Dynamics and Control	35
iii. Materials Engineering	40
Chemical Engineering (Peshawar Campus)	
i. Advanced Chemical Engineering	35
Mechatronics Engineering (Peshawar Campus)	
i. Automation and Control	55
Industrial Engineering (Peshawar Campus)	
i. Manufacturing Systems Engineering	45
ii. Engineering Management	30
US-Pakistan Center for Advance Studies in Energy (USPCAS-E)	
i. Electrical Energy Systems Engineering	50
ii. Renewable Energy Engineering	50
iii. Thermal System Engineering	50
iv. Energy Management and Sustainability	50
Basic Sciences and Islamiat, (Peshawar Campus)	
i. Mathematics	45
Architecture (Abbottabad Campus)	
i. Architecture	20

Table 2: Postgraduate (Masters Program) Seats for Afghan Refugees

S.No.	Department	Specialization	Seats
1.	Electrical Engineering	Power Engineering	3
		Communication and Electronics Engineering	3
2.	Civil Engineering	Water Resources Engineering	1
		Environmental Engineering	4
		Structural Engineering	1
		Geo-Technical Engineering	2
		Transportation Engineering	1
3.	Earthquake Engineering	Earthquake Engineering	2
4.	Mechanical Engineering	Dynamics and Control	3
		Mechanical Engineering Design	4
		Materials Engineering	3
5.	Computer Systems Engineering	Computer Systems Engineering	3
6.	Mining Engineering	Mining Engineering	6
7.	Agricultural Engineering	Soil and Water Engineering	6
		Farm Machinery and Power Engineering	3
8.	Chemical Engineering	Advanced Chemical Engineering	3
9.	Industrial Engineering	Manufacturing Systems Engineering	3
		Engineering Management	3
10.	National Institute of Urban Infrastructure Planning (NIUIP)	Urban Infrastructure Engineering	3
		Urban Infrastructure Planning & Management	4
11.	Basic Sciences and Islamiat	Mathematics	4
12.	Computer Science	Computer Science	3
13.	Mechatronics Engineering	Automation and Control	6
		Total	**74**

h) On the recommendations of the Admission Committee, the vice-chancellor shall approve the names of candidates selected for admission.

i) A candidate's admission shall be confirmed after he / she has deposited the prescribed fees with the University within the period specified for this purpose.

j) No student shall be admitted after two weeks of the start of classes.

k) The Director Postgraduate Studies shall forward the particulars of each student admitted for the first time, within one month of the completion of admission to the Controller of Examinations. The Controller shall assign a registration number to student not already registered with UETP within one month, and shall share the same with the relevant Heads of the Teaching Departments and the Director Postgraduate Studies.

l) Admission of any student is liable to be cancelled if his/her academic progress or conduct at any stage is found unsatisfactory.

m) Students registered for Master's program shall not be allowed to participate in various students' organizations.

n) The facility of hostel accommodation for Master's students shall be provided on need

basis, subject to availability.

o) If any of the particulars given by the candidate in his/her application are found incorrect or facts are suppressed, he/she shall be denied admission. If any incorrect or false statement or suppression of facts is detected after a candidate has been granted admission, his/her admission shall be cancelled and he/she shall be expelled from the University at any time during the course of his/her studies.

p) A candidate who is already a bonafide, full time student of some other institution, is ineligible to take admission in this University. He/She will have to cancel admission in the other University before taking admission in UET, Peshawar. A student may take admission in another university subject to cancellation and clearance of his/her dues. If a case is detected where a student enrolled in this University is also a student of some other institution, his/her admission in the University shall be cancelled

q) At the time of admission, selected candidates shall submit an undertaking to abide by the Rules and Regulations prevailing in the University. This shall be on non-judicial Stamp Paper worth at least Rs. 50/-, and duly attested by an Oath Commissioner. The specimen of undertaking is available in the Directorate of Admissions or on its website.

1.2 ADMISSION OF FOREIGN STUDENTS

a) The applications of foreign students must be routed through the Director, Academics, Higher Education Commission, Islamabad (www.hec.gov.pk). All applicants of this category should submit, along with their application forms:

(i) A certificate showing proficiency in English language, e.g. TOEFL or IELTS with at least a 50% score.

(ii) A financial statement confirming the availability of funds for completing the Master's Degree program.

b) Foreign students seeking residential accommodation at the University Campus may apply to the Provost, University Hostels.

c) Foreign students are exempted from entrance test for admission.

d) Twenty Four (24) seats (floating) are reserved for foreign students in the Postgraduate Program.

e) Two (02) seats (floating) are reserved for the students of least developed countries of Organization of Islamic Countries (OIC) under Higher Education Commission scholarship program: “Academic and Research Linkages Bilateral Agreement”.

1.3 POSTGRADUATE ADVISORS

Each specialization of the Department concerned will have a Postgraduate Advisor having Ph.D. Degree, who will work

under the direct supervision of the HoD. The Postgraduate advisor will monitor the implementation of the postgraduate program in his/her department, and maintain liaison with the BOASAR (Board of Advance Studies and Research) Secretariat. His/her duties will include:

a) Providing guidance to students on regulations governing the Master's Degree Program.
b) Providing guidance to students on selection of research projects.
c) Organizing field trips of Master's students.
d) Promoting links with industries and other outside organizations.
e) Promoting faculty research.
f) Organizing extension lectures, seminars, workshops and training courses in the departments.
g) Supervising reference library in the department.

1.4 UNIVERSITY FEE

University fee for postgraduate students enrolled on open merit seats are shown in Table 3.

Table 3: University Fee for Postgraduate Students on Open Merit for Pakistani and Foreign Students

S.No	Item	Pakistani Nationals (Rs.)	Foreign Students (US$)
1	Registration Fee (per semester)	15000	350
2	Tuition Fee (per credit hour)	6000	180
3	Digital Library Fee (per semester)	1000	
4	Security Fee (on first registration) Refundable	4000	400
5	Thesis Evaluation Charges (on submission of thesis)	4000	550
6	Course Completion Certificate	200	10
7	Interim Transcript	200	10
8	Final Transcript	500	20
9	Field Trips (as per trip actual charges)		

*Fee applicable on Afghan refugee students is same as for open merit Pakistani students

Semester Fees are payable at the start of each semester, on the dates announced for admission/registration. In case of admission cancellation, the following refund policy is applicable:

Timeline*	Percentage of Tuition Fee
Up to 10th day of commencement of classes	100% fee refund
Up to 15th day of commencement of classes	80% fee refund
Up to 20th day of commencement of classes	60% fee refund
Up to 30th day of commencement of classes	50% fee refund
31st day onwards of commencement of classes	No refund

* Timeline shall be calculated continuously covering both weekdays and weekends.

Any fee payable for entrance test/admission form is non-refundable under any circumstances.

The fee paid as an admission fee is nonrefundable.

A student expelled from the university due to disciplinary misconduct shall not be eligible for any refund, except for the refundable Security Fee.

Note: A late fee @ 0.025% will be charged per day from students who fail to deposit the university dues/funds by the due date for any reason.

1.5 REGISTRATION

a) At the beginning of each semester, students shall register for courses in consultation with the departmental postgraduate advisors.

b) In every semester only four postgraduate courses (including core and optional) will be offered in each stream of Departments. Engagement of faculty for teaching these courses will be decided by the concerned HoD with the approval of the concerned Dean. However, in specific cases for reasons to be recorded in writing, the Vice Chancellor will have the powers to grant exemption. Courses offered shall be displayed on the postgraduate notice board, one week before registration, to facilitate students in choosing courses.

c) Minimum number of students to register for a course shall be ten (10) for all the Departments, otherwise, the course shall be dropped for that semester. In case a course is dropped by the department, the fees shall be refunded to the students or adjusted in the coming semesters. However, the departments can offer course(s) to a class having less than ten (10) students in exceptional cases with the approval of Dean. A department can also offer course(s) to students relevant to M.Sc. thesis in the area of research.

d) Maximum number of students in each Section of Postgraduate course should not be more than forty (40) to ensure quality of teaching. If the number of registered students in any subject exceeds forty (40), then they shall be accommodated in more than one Section.

1.6 WORK STUDY LOAD

A student shall not be allowed to take more than 12 credit hours per semester. However, in the case of M. Arch. Program, the number of credit hours must not exceed the maximum credit hours allowed as per approved policy.

1.7 ADDITION OF COURSES/WITHDRAWAL FROM COURSES

a) A student may be allowed to add/drop courses within two weeks of the beginning of classes on the prescribed proforma available at DPGS office.

b) A student may be allowed to withdraw from courses within six weeks of commencement of classes by applying on the prescribed proforma. A grade of 'W' will be reported in that case.

c) Fees shall not be refunded to a student who withdraws from a course. However, if a course is dropped by UET, fees shall be refunded to student(s).

d) In case a student fails to apply for withdrawal from a course and remains absent, F Grade will be awarded.

1.8 CLASS WORK AND ATTENDANCE

A student shall attend the classes regularly, submit assignments in time, and appear for tests and examinations when announced by the teacher. Candidates with less than 75% attendance in a course shall not be allowed to appear in the final examination of the course.

1.9 EXAMINATION

1.9.1 COURSE WORK

a) For all taught courses of MS/M.Sc./MPhil Program, a final term examination having 50% weightage must be conducted. The remaining 50% marks can be distributed over quizzes, home assignments, mid term examination, mini projects etc, or any other appropriate way, as it suits the requirement of the course. However, such distribution should be clearly spelt out in writing before the commencement of the course and be submitted to the Postgraduate Advisor of the respective departments.

1.9.2 RESEARCH WORK

a) The MS/M.Sc./MPhil research proposal (submitted by a student at the end of second semester of his/her Postgraduate Studies) shall be initially vetted by Project Research Evaluation Committee (PREC), formally constituted for each specialization in each discipline before recommending it to the BOASAR office for final approval. The Head of the department concerned will recommend the names of three faculty members (including Postgraduate Advisor) holding PhD degree for constitution of PREC for approval of the Vice Chancellor through Secretary BOASAR. The Head of the concerned department will act as a convener of the PREC. The PREC will be reconstituted after a period of Two (02) years. The Head of the concerned department may recommend a Ph.D. faculty member, expert in the relevant area, to act as member (co-opted) for the PREC.

b) Any subsequent changes in the proposal, title or the topic shall also be routed through the same channel.

c) The candidate may request for change in MS supervisor or a supervisor may opt to withdraw from supervision of a candidate. The candidate or the supervisor shall submit their request to the chairperson concerned. Recommendation for change of supervisor will be made by PREC of the department through Dean concerned for approval by BOASAR. No relaxation in maximum allowable time for completion of MS/M.Sc./MPhil degree would be granted to the candidate on the basis that his supervisor has changed.

d) All MS/M.Sc./MPhil students working on their research will give at least one seminar to PREC at the end of each semester.

e) Before a student is allowed to defend his/her thesis, it will be vetted by the university against plagiarism. For the award of M.Sc./MS/MPhil degree, at least one paper should be presented / accepted / published from the M.Sc./MS/MPhil research thesis in a refereed national /international conference or journal.

f) The maximum number of postgraduate students under a Research Supervisor shall be twelve (12) which will include maximum five (05) Ph.D. students. The supervisor (expert in the subject) may be from the student's parent or a relevant department within the University subject to approval by PREC of the parent Department.

1.9.2.1 EXAMINATION OF RESEARCH WORK

The examination of the research work of the candidate shall be conducted by an Examination Committee comprising (1) Internal Examiner, (2) Student's Research Supervisor and (3) External Examiner from outside the University. The Examination Committee will be appointed by the vice-chancellor on the recommendation of the Dean. The Supervisor shall act as the Chairman of the Examination Committee. The examination shall include:

(i) Evaluation of thesis

(ii) Viva-voce examination

If the thesis is judged as adequate, the candidate shall appear in the viva-voce examination to be conducted by the Examination Committee on a specific date. The thesis supervisor must inform the Director Postgraduate Studies about the Thesis Defense Examination Result on the official form T-3. If the thesis is found inadequate, it may be referred back for revision and resubmission within a specified period as detailed by the Examination Committee. Only one chance of resubmission shall be allowed to a candidate and if the revised thesis is not approved under the aforesaid procedure, the thesis shall be rejected. In a case of revised thesis resubmitted for evaluation, the student has to pay thesis evaluation charges again. If in the opinion of the majority of the examiners, the candidate fails in the oral examination, he/she may be permitted to reappear in the viva-voce re-examination within a period of three months. In such a case the candidate shall be given only one chance to re-appear in the oral examination.

1.10 QUALITY OF WORK (GRADES)

a) To be eligible for graduation, a student must have a CGPA of at least 2.67 (B-) in course work and satisfactory grade (S) in research. Grade Points are assigned as shown in Table 4.

Table 4: Grade Points

A	4.00
A-	3.67
B+	3.33
B	3.00
B-	2.67
C+	2.33
C	2.00
C-	1.67
D+	1.33
D	1.00
F	0.00
I	Incomplete
W	Withdrawn
N	Audit
S	Satisfactory (for thesis only)
U	Unsatisfactory (for thesis only)

b) A student who has been awarded "F" grade in a course may be allowed one chance to improve the grade by repeating the course within the prescribed time limit (see.1.13 d). This facility may be availed for a maximum of two courses during the entire Master's program. Only the higher grade will be used in computing the GPA.

c) Grade "I" (incomplete) is awarded to a student only if he/she has missed the Final Examination, Project Report, etc. due to genuine reasons, but has completed all the other work of the course successfully. Grade "I" should be

converted to an appropriate letter grade within two consecutive semesters, otherwise it would be converted into Grade "F" permanently.

d) The requirement of a "N" grade would be laid down by the teacher of a course at the beginning of the semester.

e) The Grade Point Average (GPA) will be calculated as follows:

Quality Points of each course = Grade Points of grade awarded x Course credit hours.

GPA = Sum of Quality Points of all courses / Total credit hours

f) Improvement of grade "C" and below:

Students taking grade "C" or a lower grade than "C" will get only one chance to improve the grade by repeating the course. Tuition fees will be charged for repeating the course. The student will get no additional credit for repeating the course. After repeating the course and fulfilling all its requirements including exams, the instructor concerned will award the student a fresh grade.

1.11 MEDIUM OF INSTRUCTION

The medium of instruction in all Postgraduate Courses shall be English. Foreign students will be required to satisfy the concerned department about their proficiency in English before registration.

1.12 DURATION OF COURSES

a) There will be two semesters in an academic year. Each semester will be of eighteen weeks duration, including classes and conduct of examinations.

b) The Fall semester, will start in the first week of September and the Spring semester will begin in the first week of February.

1.13 DEGREE REQUIREMENTS

a) Research-based Master degree program

A total of 32 credit hours (including 6 credit hours of research) are required to complete the master's degree program. The 26 credit hours of course work shall include at least 12 credit hours from the core area of specialization, six (06) credit hours optional courses from the area of specialization, and 3 credit hours of the course "Research Methodology". Two (2) credit hours of Fehm-e-Quran I & II. This course will be registered as a credit course and mandatory for all students conducting research. The remaining three (03) credit hours can be registered as an optional course from the area of specialization or any other relevant stream in consultation with PG advisor and permission of HoD.

OR

Course-based Master degree program

A total of 32 credit hours course work are required for completion of master degree. The 32 credit hours of course work shall include at least 12 credit hours core courses from area of specialization. The remaining twenty (20) credit hours may be taken as follows:

Twelve (12) credit hours optional courses

from the same stream and the remaining six (06) credit hours either from the same stream or any other stream/department within the University in consultation with PG advisor and approval of the HoD. Two (2) credit hours of Fehm-e-Quran I & II. Research Methodology course can be registered as an optional course.

b) On the completion of course and research work, the student shall apply for defense of thesis on a prescribed proforma available from the Directorate of Postgraduate Studies/ Departmental Postgraduate Advisor and University website (www.uetpeshawar.edu.pk). The final script of the thesis must be certified against plagiarism by the Quality Enhancement Cell (QEC) of the University before the thesis defense.

c) After successful defense of research work, the student shall submit two hard-bound copies of the final script of thesis to the Director Postgraduate Studies within fifteen days of defense as per format approved by the statutory bodies of the University. The format of the thesis will be checked by Supervisor. The copies shall be kept in the Central Library of the University and the Directorate of Postgraduate studies.

d) The student must complete all the degree requirements of MS/M.Sc./MPhil within a minimum of one and half (1.5) years or three (03) regular semesters and within a maximum of four (4) years or eight (08) regular semesters after the first registration for a program with exceptions mentioned at clause 1.13(e).

e) In case a student is unable to secure an MS/MPhil within the prescribed time frame and claims for extension in duration, the Departmental Project Research Evaluation Committee (PREC) shall determine the causes of delay. In the event of force majeure (i.e., delay on account of circumstances beyond the control of the student), the PREC shall recommend an extension to the Hon. Vice Chancellor through the office of DPGS for the final decision in the period of award of MS/M.Sc./MPhil degree in accordance with the duration limiting factor(s). The university shall also take corrective measures in case the delay is caused by process or administrative reasons.

f) The student shall apply for the award of M.Sc./MS/Mphil degree on a prescribed proforma available from Directorate of Postgraduate studies/ Departmental Postgraduate Advisor and University website (www.uetpeshawar.edu.pk). The proforma shall be used to verify all the requirements of the degree, i.e. passing of core courses, total courses and thesis defense examination.

g) The admission of the student will be cancelled if he/she remains absent continuously for two

semesters without freezing the semester. The student will be issued attended semesters transcript.

1.14 RESIDENCY REQUIREMENTS

a) The student shall earn all the credits of course work and complete the research at the University.

b) In special circumstances, the BOASAR may permit the research to be carried out in another organization/ institution. In such an event the student will be assigned a co-supervisor with at least MS/M.Sc./MPhil qualification working in that institution, who will be paid honorarium equal to half of honorarium paid to the main supervisor. However, the student shall maintain a supervisor from parent department or relevant department of the University with consent of the chairman of parent department in consultation with PREC members.

1.15 TRANSFER OF CREDITS

In case of change of MS/M.Sc./MPhil stream/admission in another stream of engineering or readmission, a maximum of six (06) credit hours of the previous stream/admission or from another university may also be allowed if approved by the concerned PREC. The credit transfer is subject to the following conditions:

a) That the course(s) has been studied at an HEC recognized institution.

b) The course(s) under consideration has not been given credit for the award of a degree.

c) The course(s) must correspond to a course(s) currently offered by the concerned department or be deemed equivalent in depth and intensity to a current course(s).

d) The student must have earned a minimum 3.0 out of 4.0 GPA in a semester system similar to the one in this University for determining transfer of MS/M.Sc./MPhil courses.

1.16 SCHOLASTIC RECORD

The scholastic record of graduate students shall be maintained by the Controller of Examinations. Departments offering Postgraduate courses shall send award list of grades to the Controller of Examinations, within one week of final examination. The students shall be notified about their final grades by the Postgraduate Advisor of the department.

1.17 DISCIPLINE

Students enrolled in the Postgraduate Program shall observe the rules and regulations of the University. Any infringement shall be dealt with under the University Discipline Rules.

1.18 ASSISTANTSHIPS AND FREE SHIPS

Subject to the availability of funds in the budget, limited number of teaching and tuition free ships are granted to Postgraduate students who are willing to perform academic duties during working hours of the University.

a) Teaching Assistantship: teaching under-graduates. Rs. 5000/- per month with tuition free ship.

b) Research Assistantship: assignment on project work. Rs.5000/- per month with tuition free ship

c) Other fellowship/financial assistance shall be announced when available.

1.19 COURSES OFFERED WITHOUT ADMISSION

A private student who wishes to take a course without taking admission in the Master's Program, should formally submit an application to the Chairman of the Department concerned. After permission of the Chairman concerned, he/she will be allowed to enroll subject to the availability of space after payment of Rs. 30,000/- per course. Further he/she will not be allowed to take more than two courses without taking admission in Master's Program. He/she will be awarded a Certificate by the Chairman of the Department concerned for attending the course(s) without claiming any credit.

1.20 SPECIAL PROVISIONS

a) In all cases where regulations are silent, the decisions of the vice-chancellor shall be final.

b) All other regulations and instructions relating to Master's Engineering courses issued here-to-fore stand repealed.

c) The University authorities reserve the rights to make any change in the rules, regulations, fees structure and courses of study that may be considered necessary at any time without prior notice.

d) Interpretation of these regulations by the Vice Chancellor of the University shall be final.

1.21 FREEZING OF SEMESTER (S)

A student can freeze one or two semesters subject to the following conditions.

a) Freezing of the first semester is not allowed. Under special hardship circumstances freezing of first semester can be considered after the approval of concerned dean.

b) The student shall apply for freezing a semester two weeks before commencement of the semester. Freezing during the semester is not allowed.

c) The maximum duration of freezing is two semesters where the maximum duration of the degree program shall remain the same.

d) A student who wants to freeze a semester shall deposit freezing semester fee of Rs. 15000/- per semester.

e) If a student is not enrolled in any course in a semester, s/he shall not be considered a regular student at university in that period.

f) The students are allowed to unfreeze a semester within two weeks of commencement of classes if s/he desires after freezing a semester. The fee deposited for freezing will be adjusted in tuition fee.

1.22 CANCELLATION OF ADMISSION

a) A bonafide student at this University may apply for cancellation of admission on a non-judicial

stamp paper of minimum available price (not less than Rs. 100/-) duly attested by an Oath Commissioner. Cancellation of admission shall be done by head of the department concerned.

b) The student can appeal for re-admission which may be considered and approved by the Committee constituted for this purpose. The re-admission request can be entertained if it is within a period of one Academic year after the admission cancellation. The recommendations of the committee shall be considered by the Admission Committee for final decision.

c) Cancellation of admission in case of students admitted in other campuses of the University shall be done by the senior most Dean, Faculty of Engineering through Directorate of Admissions on the recommendations of the Chairman of Department concerned.

d) In case the admission of 1st semester student is cancelled due to any reason, the rules regarding university fee/dues chargeable/refundable mentioned in clause 1.4 will be applicable. Whereas in all other cases the University fees/dues will be charged up to the last semester attended.

e) Students seeking cancellation of admission shall have to submit Clearance Certificate along with other required documents.

Ph.D. Degree Program

GENERAL

These rules apply on all Ph.D. Programes in which UET Peshawar will be sole degree awarding authority. The Ph.D. Programe shall extend over a period of at least three years from the date of first registration for a full-time, and at least four years for a part-time student. The Ph.D. Programe is task-oriented rather than time-oriented. The Ph.D. work will be considered complete only when the supervisor and the Research Evaluation Committee (REC) are satisfied.

The student must register for at least 56 credit hours. While undertaking research work, the candidate shall be encouraged to attend seminars, conferences, symposia and publish papers in journals of national or international repute. Upon recommendation of the Supervisor, BOASAR will provide funding to the candidate for presenting a paper at a relevant Seminar /Conference / Symposium at least once every year during his/her research.

All research work will be carried out at UET, Peshawar, unless otherwise advised by the Supervisor. Part-time students must also fulfill the residency requirement by registering as full-time students for at least two years. In case of joint research proposal with industry or another university, residency requirement will be established by supervisor and co-supervisor (member from Industry/another university).

REGULATIONS

2.1 Admission

a) Ph.D. program shall be open to applicants who have Master/M.Phil degree (research-based and course-based) with a minimum CGPA of 3.0 in a relevant discipline recognized by the University. For details on area of specialization, the HoD of respective department should be contacted.

b) The Director of Admissions in consultation with the heads of departments will invite applications for admission to the Ph.D. Programe at the same time as Master's admissions. The application should include a brief proposal of research to be carried out by the applicant, along with CV and a list of any previous research publications.

c) The Chairman, in consultation with the Departmental Project Research Evaluation Committee (PREC) will scrutinize the applications and forward it to the Director Postgraduate Studies with his recommendations (including the name of the proposed Supervisor).

d) The Director Postgraduate Studies will present the credentials to the University Admission Committee for recommendation and to the Vice-Chancellor for final approval.

e) Applicants selected for admission will be so informed by the Head of the Department concerned and their names shall also be notified on the Notice Board of the Department and of the Directorate of Postgraduate Studies.

f) The applicant will have to register within one month of the notification or the beginning of the forthcoming semester, whichever is later, by paying the prescribed fees for the first semester.

g) Further, no Supervisor shall have more than five (05) candidates for Ph.D. simultaneously, unless

authorized by a committee comprising the Dean of relevant faculty, the Head of relevant Department, and the Secretary BOASAR of the University.

h) The candidates seeking admission in Ph.D. Program must have:

(i) A Masters/M.Phil/ equivalent degree in the related field with minimum CGPA 3.0 out of 4.0 or 3.75 out of 5.0 or First Division in annual system. The percentage will be valid only if the CGPA is not mentioned in the degree / transcript.

(ii) 18 years of education with MS/M.Sc./MPhil or equivalent degree from Pakistani or Foreign Universities.

(iii) University will conduct its own admission test as an eligibility condition for admission to Ph.D. programs, with a passing score of 60% OR accept the GRE general/UATA General / Equivalent tests, with a passing score of 60%.

i) The students having strong demonstrated interest in obtaining Ph.D. degree, but their CGPA is below 3.00 (out of 4.0 in the semester system) or 60% marks (in the annual system) in the most recent degree obtained, may be admitted to a Ph.D. program after fulfilling the following requirements:

i. Shall study 9-12 CH additional MS/MSc level courses taking a zero semester at university and score minimum 3.00 out of 4.00 GPA, and

ii. The admission committee is satisfied that the applicant's knowledge of primary area has sufficiently prepared him or her to undertake the course of studies of the doctoral program.

iii. These requirements are in addition to any other requirements set for admission to a Ph.D. program.

j) Admission of the student shall be considered cancelled if he/she remains absent continuously for two semesters without freezing the semester.

k) A student can freeze his/her semester as per the policy in section 1.21 of the master degree program.

l) Interpretation of these regulations by the Vice Chancellor of the University shall be final.

2.2 PH.D. DEGREE REQUIREMENTS

a) A Ph.D. candidate must complete at least 20 credit hours Ph.D. level course work with a minimum CGPA of 3.0, followed by a comprehensive examination along with thesis defense, which will be essential for the award of Ph.D. degree.

b) The student must register for a minimum total of 56 credit hours (20 credit hours of course work and 36 credit hours of research work).

c) A Ph.D. student may be allowed to register in an advanced Postgraduate course as a single participant in his core area of research with the

approval of the Dean. However, he/she can only take maximum one course as a single participant.

d) The students who have been awarded an "F" grade or Incomplete "I" or they want to improve their grades, same rules are applicable as mentioned in the Mater Degree Programe under sections 1.10 (b), (c) and (f).

2.3 PH.D. CANDIDATURE

a) The student will become a candidate for Ph.D degree after passing the Qualifying Examination and on the recommendation of the Supervisor concerned.

b) Within two months of passing the Qualifying Examination, the Supervisor, with the approval of the Head of the Department, shall constitute an REC for each candidate comprising qualified persons and shall send it to the office of BOASAR for approval of the Board. All committee members must have Ph.D. degree except possibly No. (v).

(i) The HEC / University approved Supervisor (expert in the subject) from the department concerned or a relevant department within the university subject to approval by PREC of parent Department.

(ii) One member from the department concerned.

(iii) One member from a department other than the concerned department.

(iv) One member from a university other than UET, Peshawar.

(v) One member from a Research Institute/ Industry.

Any member from the above may be appointed as a Co-Supervisor for the candidate, if required. The names shall be submitted for approval of the vice-chancellor through Director Postgraduate Studies. The Supervisor shall act as the Chairman of the REC.

c) In the Ph.D. degree Programe, a minimum of three REC meetings shall be conducted. The REC shall meet once a year (i.e Fall to Fall or Spring to Spring) and monitor the research work of the candidate. There shall be a gap of one year between two consecutive RECs. The supervisor shall submit the yearly progress report of the student to the Director Postgraduate studies.

d) If Supervisor is unable to continue, the Head of Department in consultation with REC shall appoint a new Supervisor (preferably a REC member) of the student's research. The new Supervisor may associate a Co-supervisor from the faculty available within the University or outside the University.

e) The REC, shall also act as an Examination Committee. The quorum for the REC shall be at least three members and for Examination Committee at least four members including at least one member from outside the University. The Supervisor shall act as the head of the committee. The REC may advise the student to go ahead if it is satisfied with the annual progress of the work or to continue on the improving of his/her research findings if it is not satisfied.

2.4 EXAMINATION

2.4.1 PH.D. QUALIFYING EXAMINATION

a) Each department shall conduct Ph.D. qualifying examination once each semester. It will be a written exam on a pass/fail basis with a minimum passing score of 60% in each subject. The qualifying examination shall consist of three question papers from the courses studied by the students in their Ph.D.. Each paper shall be of at least three (03) hours and 100 marks with a minimum of five comprehensive questions. MCQs are not allowed. Each question paper must be designed to ascertain in-depth knowledge, analytical abilities and aptitude of the student in his area of Ph.D. research. Each question paper will include two parts: a general section and a specialized section. The general section will assess students on the core areas of the discipline (as notified by the Department), whereas the specialized section may assess the student on the area of his/her research interest.

b) A Ph.D. student must appear in the qualifying examination within six months of the date of his course completion. Students who fail will be allowed to repeat the examination once only within six months of the declaration of qualifying examination result.

c) Students who fail the Qualifying examination twice will not be allowed to continue their Ph.D.

d) The Qualifying Examination Committee should comprise of 3 members including concerned Ph.D. Supervisor. The members of Qualifying Examination Committee will be nominated by the concerned supervisor and appointed by the Chairman of the respective department by taking into consideration the core areas of the research. All the members will assess and evaluate the potential of the student independently with regard to the initiative of Ph.D. research in the relevant field. The Qualifying Examination Committee shall declare the result of the student on pass/fail.

2.4.2 PH.D. PRELIMINARY (OR PROPOSAL DEFENSE) EXAMINATION

a) Within six months of passing the qualifying Examination, candidate should appear in a preliminary examination conducted by the REC. The candidate will submit his/her research proposal on the approved format along with literature survey and research plan in written form to the REC at least two weeks prior to the examination. In this examination, the candidate will make an oral presentation and defend his/her proposal in front of the REC. The candidate will incorporate necessary changes if suggested by the REC in the proposal and submit to the office of BOASAR through his/her supervisor for approval of the Board. Any subsequent changes to the proposal, title or the topic shall also be routed through the same channel.

b) The purpose of preliminary examination is to

confirm that the candidate understands the problem, is aware of the associated literature, has a realistic research plan and schedule, and the research problem is of Ph.D. standard. If the REC is satisfied, the candidate will be allowed to proceed. If not, he/she may be given one more chance to pass the preliminary examination.

c) The required coursework, comprehensive exam, and defense of synopsis/research proposals should be completed within the 1st six (06) semesters of the registration into a Ph.D. program. The responsibility in this regard rests collectively with the Ph.D. student and the supervisor. In case of noncompliance, the registration shall be cancelled and transcripts for completion of coursework may be issued to the student. In an event of force majeure i.e., noncompliance on account of circumstances beyond the control of student, the university may consider the matter in accordance with the procedure prescribed at 2.4.5(c).

2.4.3 EXTERNAL THESIS EVALUATORS

The Ph.D. dissertation must be evaluated by:

a) At least two external experts who shall be:

i. Ph.D. faculty member from the world top 500 universities ranked by the Times Higher Education or QS World Ranking in the year corresponding to dissertation evaluation year OR

ii. Pakistan-based Distinguished National Professors, Meritorious Professors from any national university; or professors from top universities ranked by HEC; or professors from any Pakistani University having a minimum H-Index 30 for sciences, 15 for Social Sciences or 8 for Art & Humanities as determined by Web of Science. OR

b) At least one external expert qualifying any one of the conditions mentioned at (a) above if the Ph.D. candidate publishes dissertation research in a peer-reviewed journal that is classified by the HEC in category W for Sciences and X or above for Social Sciences.

c) External Thesis Evaluator(s) will be nominated by the supervisor concerned for a Ph.D. student after passing his / her 2nd REC meeting. The Supervisor will submit nomination(s) to the Director Postgraduate Studies who will recommend the nominations to the relevant Dean of faculty for final approval of the Vice Chancellor.

2.4.4 EVALUATION OF THESIS

The foreign evaluators and REC shall first evaluate the thesis to ascertain that:

Thesis makes a distinct contribution in the area of specialization of the candidate, and it shows the ability of the candidate for original investigation and for understanding the relationship of his /her research with a wider field of knowledge.

Thesis evaluation by the external evaluator(s) and REC will be on following basis:

a) Each member shall submit his report independ-

ently to the Director Postgraduate Studies on prescribed Proforma recommending:-

(i) That thesis is satisfactory, Viva-voce examination may be held to enable the candidate to defend his thesis, (No correction),

OR

(ii) That the thesis may be resubmitted by the candidate after revision on the proposals suggested by the members, OR

(iii) That the thesis be rejected as it is not of merit and candidate be declared ineligible.

b) Evaluation report by the one or two external evaluators has to be positive before the student can be asked to carry out final defense.

c) The recommendations made by a majority of the members of the REC shall be implemented. In case of a tie of difference of opinions, the BOASAR shall recommend to the vice-chancellor for appointing a neutral examiner whose opinion shall be final.

d) Re-submission of thesis shall be allowed only once. In case the resubmitted thesis is not of merit, the candidate shall be declared ineligible for the Ph.D. degree.

2.4.5 PH.D. THESIS DEFENSE EXAMINATION

a) A candidate ready for Ph.D. thesis defense examination shall apply to the Director Postgraduate Studies on the prescribed proforma along with six copies of his/her hard-bound thesis and a certificate from his/her Supervisor duly countersigned by the Head of Department about the satisfactory completion of his/her research and thesis in accordance with the prescribed format of thesis. In addition, the final script of the thesis must be certified against plagiarism by the Quality Enhancement Cell (QEC) of the university before the thesis defense.

b) To ensure that Ph.D. defense is conducted fairly and in accordance with the rules and regulations, the presence of a neutral chair shall be ensured. The PREC shall recommend three Professors of other faculties of UET, Peshawar to the concerned Dean, who shall nominate one of the three as the neutral chair for the Ph.D. defense. The neutral chair shall ensure that Ph.D. defense is conducted fairly and in accordance with the rules and regulations and convey the fairness confirmation to DPGS in the form of a written report.

c) The maximum duration of Ph.D. shall not exceed eight (08) years, from the 1st date of registration of a student in his/her Ph.D. program. In case a student is unable to secure a Ph.D. degree within the prescribed time frame and claims for extension in duration, the Departmental PREC shall determine the causes for delay. In event of force majeure i.e., delay on account of circumstance beyond the control of student, the PREC shall recommend an extension to the Hon. Vice

Chancellor through the office of DPGS for final decision in the period of award of Ph.D. degree in accordance with the duration limiting factor(s). In any case the extension should be for a maximum of two years. The university shall also take corrective measures in case the delay is caused due to process or administrative reasons.

d) After the expiry of duration mentioned above, the candidate may be allowed to register as a fresh candidate, if he/she so desires.

2.4.6 VIVA-VOCE

a) After the thesis has been evaluated as satisfactory, Viva-Voce Examination shall be held at a place and date as may be determined by the Dean on the recommendations of the Director Postgraduate Studies.

b) Such places and dates shall be made public by the Director Postgraduate Studies through publishing on the University's website and any official social media accounts of the university; and also by invitation to such other institutions of learning and research as may be related to the area of specialization of the candidate.

c) The Viva-Voce Exam shall be conducted by the Examination Committee,

d) Each member shall submit his report recommending:-

(i) That the candidate be declared to have passed the examination, OR

(ii) That the candidate should appear for viva-voce, after a period stipulated by the Examination Committee, OR

(iii) That the candidate be declared to have failed and ineligible for the award of the Ph.D. degree.

(iv) The recommendation made by the majority of the examiners shall be implemented. In case of a tie, the BOASAR shall recommend to the vice-chancellor for appointing a neutral examiner whose opinion shall be final.

e) The publication requirements are:

i. At least one (01) research article in W category journal or two (02) research articles in X category journals, for Science disciplines.

ii. At least one (01) research article in X category journal or two (02) research articles in Y category journals, for Social Science disciplines.

iii. The Ph.D. researcher shall be the first author of these publication(s).

iv. The research article(s) shall be relevant to the Ph.D. research work of the Ph.D. researcher and published in HEC recognized journal.

v. The article shall be published after approval of the research synopsis/proposal.

(f) The candidate shall be admitted to a Ph.D. degree in the relevant branch, provided that he/she has been declared to have passed the viva-voce examination in accordance with these regulations.

g) A student who successfully completes coursework and passes the comprehensive examination but is unable to defend a Ph.D. synopsis/research proposal shall be awarded a Certificate and transcript for the completed courses. If a student successfully defends a Ph.D. synopsis/research proposal but does not complete the required research for obtaining a Ph.D. degree within the specified timeframe, shall be granted a Graduate Level Diploma with transcript upon completion of necessary requirements as per HEC policies and the university rules and regulations.

2.5 FUNDING

a) All students must be available for a minimum period of two years as full time regular student taking leave from their jobs, if necessary. In case of financial need, a student may be awarded a teaching assistantship of up to Rs. 8000/- per month on the recommendation of the supervisor concerned.

b) The matter of study leave and scholarship (for paying fees) of faculty members getting admission in Ph.D. will be decided as per existing rules of the University for leave and scholarship.

c) Students funded by the University should give an undertaking to pay back the University all expenses incurred on their Ph.D. in case of willful abandoning of the Ph.D. Programe as ascertained/notified by the Supervisor.

d) Funding for each Ph.D. student will be released annually by BOASAR on the recommendation of the REC. However, funds for the first year will be released upon first registration of the student, since REC is not yet constituted.

2.6 UNIVERSITY FEE

University fee will be charged at rates prescribed in Table-3 (Page-114) for Open Merit Master's students.

2.7 CHANGE OF SUPERVISOR

The candidate may request for change in Ph.D. supervisor or a supervisor may opt to withdraw from supervision of a candidate. The candidate or the supervisor shall submit their request to the chairperson concerned. Recommendation for change of supervisor will be made by PREC of the department through Dean concerned for approval by BOASAR. No relaxation in maximum allowable time for completion of Ph.D. degree would be granted to the candidate on the basis that his supervisor has changed.

2.8 CHANGE OF REC MEMBER

If an REC member is no longer available or does not want to continue as a member, the supervisor will send a change of an REC member request to the secretory BOASAR through relevant Dean of faculty for approval by the Vice Chancellor.

2.9 TRANSFER OF CREDITS

In the case of change of Ph.D. stream/admission in another stream of engineering, readmission or transfer from another university, a maximum of six (06) credit hours of the previous

stream/admission or university will be allowed. Initial recommendation of the credit transfer will be initiated through the PREC of parent department/stream in which admission will be requested. The case will then be sent to the concerned dean for approval. The credit transfer is proposed subject to the following conditions:

a) That the subject has been studied at an HEC recognized institution.

b) The subject under consideration has not been given credit for the award of a degree.

c) The subject must correspond to a subject currently offered by the concerned department or be deemed equivalent in depth and intensity to a current subject.

d) The student must have earned a minimum GPA of 3.0 out of 4.0 in those subjects deemed to be transferred in a semester system similar to the one in this University.

2.10 CANCELLATION OF ADMISSION

a) A bonafide student at this University may apply in person, or through parents/guardian, for cancellation of admission on a non-judicial stamp paper of minimum available price (not less than Rs. 100/-) duly attested by an Oath Commissioner along with submitting Clearance Certificate. The Chairman of the concerned department shall cancel the admission of the student.

b) Cancellation of admission in case of students admitted in other campuses of the University shall be done by the senior most Dean, Faculty of Engineering through Directorate of Admissions on the recommendations of the Chairman of Department concerned.

c) In the case of Admission Cancellation under Clauses (a), (b), a student can appeal for re-admission, to be considered by the Committee constituted for this purpose, within a period of one Academic year after the cancellation of admission. The recommendations of the committee shall be considered by the Admission Committee for final decision.

d) In case the admission of 1st semester student is cancelled due to any reason, the rules regarding University fee/dues chargeable/refundable mentioned in clause 1.4 of MS/MPhil Program will be applicable. Whereas in all other cases the University fees/dues will be charged up to the last semester attended.

e) Students seeking cancellation of admission will have to submit Clearance Certificate along with other documents.

CONDUCT & DISCIPLINE REGULATIONS

1. TITLE

These regulations are framed under "University of Engineering & Technology, Peshawar Constitution, Functions and Powers of Authorities of the University Statutes, 2016".

The University discipline Committee constituted under Clause-22.13 of "UET Peshawar Constitution, Functions and Powers of Authorities of the University Statutes, 2016" shall have the authority and jurisdiction to deal with and decide all cases of indiscipline, in accordance with University Students Conduct and Discipline Regulations.

2. APPLICABILITY AND COMMENCEMENT

These regulations shall apply to all students on the rolls of the University and the affiliated Colleges of the University.

3. STUDENTS CODE OF HONOUR

Every student shall observe the following code of conduct:-

(a) Faithfulness in his religious duties, and respect for convictions of others in matters of religion, conscience and customs.

(b) Loyalty of Pakistan, and refraining from doing anything which might lower its honour and prestige in any way.

(c) Truthfulness and honesty in dealing with others.

(d) Respect for elders, and politeness to all, especially to women, children, old people, weak, deformed and the helpless.

(e) Respect for teachers and others in authority in the University.

(f) Cleanliness of body, mind, speech and habits.

(g) Helpfulness to fellow-beings.

(h) Devotion to studies and sports.

(i) Protection of Government property.

4. PROHIBITED ACTS

The students should refrain from:-

(a) Smoking in class-rooms, laboratories, workshops, examination halls, or Convocation Hall, and during study or academic functions.

(b) Using or carrying of alcoholic drinks or other intoxicating drugs, within the University Campus or University Hostels or during instruction, sports or cultural tours or survey camps or entering such places or attending any such tour of camp while under the influence of such intoxicants, or any other University/ College functions outside the Campus.

(c) Organizing or taking part in any function within the University campus or hostel, or organizing any club or society of students or students associations, unions and federations, except in accordance with the prescribed rules and regulations.

(d) Collecting any money, receiving funds or pecuniary assistance for, or on behalf, of the University, except with the written permission of the vice-chancellor /Principal.

(e) Staging, inciting or participating in any walk-out, strike, or other form of agitation against the University or its teachers or officers, inciting any one to violence, disruption of the peaceful atmospheres of the University in any way, making provocative speeches or gestures which may cause resentment, issuing of pamphlets or cartoons casting aspersions on the teachers or staff of the University or the University bodies, or doing anything in anyway likely to promote rift and hatred among the various groups or castes of students community, issuing statements in the press making false accusations or lowering the prestige of the University or writing and pasting posters on the walls.

(f) Bringing, carrying and keeping of fire arms or any other weapon (of any nature/type) forbidden by law, within the University Campus, class-rooms, hostels and offices.

(g) Causing damage to University property or government public property.

(h) Use of loud speakers, mega-phones, "decks" in the University hostels and on campus.

5. ACTS OF INDISCIPLINE

A student will be deemed to have committed an act of indiscipline if he/she:

(a) Commits a breach of rules of conduct specified above, or

(b) Disobeys the lawful order or a teacher or other person in authority in the University, or

(c) Habitually neglects his work or habitually absents himself from his class without valid reason; or

(d) Wilfully damages University (or) public property or the property of a fellow student or any teacher or any employee of the University or

(e) Does not pay the fees, fines, or, other dues payable, under the University Regulations and Rules; or

(f) Does not comply with the rules relating to residence in hostels, or uses indecent language, wears immodest clothes, makes indecent remarks or gestures, or behaves in a disorderly manner, or commits any criminal immoral or dishonorable act (whether committed within the University Campus or outside) or any act which is detrimental to the interest of the University. False personification or giving false information or willful suppression of facts, information cheating or deceiving

the University

(g) Forging, mutilating, altering erasing or otherwise tampering with any document connected with examination, receipt of University fees / dues or making undue use of such documents.

6. PROCEDURE IN CASE OF BREACH OF DISCIPLINE

The vice-chancellor , if in his opinion an act of indiscipline can more appropriately be dealt with by the University Discipline Committee, may refer it to the University Discipline Committee for necessary action under the Rules/Regulations.

7. RUSTICATION AND EXPULSION

(i) Rustication

(a) Rustication, whenever imposed on a College/University student, shall always mean the loss of one semester or one academic year so far his appearance in a University examination is concerned. The rusticated student may be admitted in the University on the expiry of the rustication period.

(b) No fee will be charged from a rusticated student for the month or months during which his name is struck off the rolls.

(ii) Expulsion

(a) The period of expulsion will be counted from the date of issue of such a notice by the University. Expulsion period can vary.

(b) Name of the expelled student will immediately be removed from the Department's rolls, and no fee will be charged from him/her for subsequent months.

(c) A student expelled from a Department may be re-admitted into that Department or another affiliated College after the expiry of the period of expulsion.

(d) Cases of expulsion will be registered in the University and notified to all Departments and Universities.

8. GENERAL

(i) The authority, which has the power to rusticate could also withdraw the same order before the expiry of the period.

(ii) No student shall be rusticated/expelled from the University unless he has been served with the Show Cause Notice, and allowed a reasonable time for explan-ation and replying to the charges framed against him.

(iii) When in the opinion of the Discipline Committee the rustication or expulsion is not called for in a case referred to it, may impose any other penalty or penalties mentioned in the above Regulations.

9. APPEAL

(i) An appeal against the punishment awarded by the University Discipline Committee can be made to the Appellate Committee.

(ii) No appeal by a student against the decision of the University Discipline Committee shall be entertained unless it is presented within thirty days from the date on which the decision is communicated to him.

This code of conduct will repeal all previous Regulations relating to Expulsion and Rustication or any other instructions relating to the maintenance of discipline among the students.

UNIVERSITY CONDUCT & DISCIPLINE REGULATIONS 2002 (Amended in 2006)

Penalties which may be imposed by the University authorities
for various offences committed are given below:

S.No	OFFENCE	PENALTY
1.	Using/carrying of alcoholic drinks or other intoxicating drugs within the University Campus or University Hostels or during Study Tour or Cultural Tours or Survey Camps, any such tours of any other University/College or outside the campus under the influence of such intoxicants or misbehaving with others, especially females, during tours etc.	Debar from classes for one week or fine not exceeding Rs. 10,000/- OR Expulsion from the University.
2.	Organizing or taking part in any function within the University Campus or hostel or organizing any club or society of students or students association, unions or federation, except in accordance with the prescribed rules and regulations.	Stern warning and / or Fine not exceeding Rs. 20,000/-, AND / OR Expulsion from hostel accommodation, if relevant.
3.	Collecting any money or receiving funds or pecuniary assistance for or on behalf of the University, except with the written permission of the vice-chancellor .	All money supposed to have collected shall be confiscated in favour of the University. AND/OR Fine not exceeding Rs. 10,000/-
4.	Staging or inciting or forcing fellow students to a walkout from classes or examination halls or organizing, conducting or participating in strikes or agitation or violence against the University authorities or members of teaching or administrative staff or disrupting the classes or any other academic activity of the University being held inside or outside the campus.	Expulsion from the University for one to four semesters/two academic years, depending on the nature and gravity of the crime. AND / OR Fine not exceeding Rs. 20,000/-

5.	Casting aspersions or using abusive and derogatory language in speeches, pamphlets or posters against the University authorities or members of teaching or administrative staff of the University or physically manhandling, beating or disgracing the University authorities or members of the teaching or administrative staff of the University or committing an act of moral turpitude against fellow students.	Expulsion from the University for one to six semesters/ three years, depending on the nature and gravity of the crime. AND / OR Fine not exceeding Rs. 30,000/-
6.	Conducting or inciting or participating in a violent attack on the offices of the University authorities, Chairmen, faculty members or other officers of the University.	Permanent expulsion from the University. AND / OR Fine not exceeding Rs. 50,000/-
7.	Damaging/destroying or trying to damage/ destroy the property (movable or immovable) of the University or University employees or Government or any other Public Organization or stealing or taking away by force any item of University property.	Recovery of the amount equal to the value of the damage caused; and / or fine not exceeding Rs. 20,000/- AND / OR Rustication from the University.
8.	Bringing, carrying or keeping or firing of arms or any other weapon (of any nature/type) within the University campus or class rooms or hostels or examination halls or offices of the University.	Fine not exceeding Rs. 20,000/- AND / OR Expulsion from the hostel. Expulsion from the University for a maximum period of two semesters / one year.

9.	Using loudspeakers or mega-phones in the University hostels or on the University campus or making provocative speeches or gestures which may cause resentment or doing anything in anyway which is likely to promote rift and hatred among various groups or castes of students community or issuing statements in the press, making false accusations against the University or University Authorities or members of teaching staff.	Fine not exceeding Rs. 20,000/-; expulsion from the hostel. AND / OR Expulsion from the University for maximum period of two semesters / one year.
10.	Misbehaving and not cooperating with faculty members, University proctors, Hostel Wardens, and other authorities.	Fine not exceeding Rs. 20,000/-; expulsion from the hostel. AND / OR Expulsion from the University for maximum period of two semesters / one year.
11.	Forming political wing of any political party, student union, student federation, or associations based on linguistic, ethnical, territorial, religions affiliation, or any other platform.	Fine not less than Rs. 5,000/- AND / OR Stern warning. Rustication / expulsion from University.
12.	Holding "Dars" or "Waaz-o-Naseehat" and collection of funds for political, religious party or group within the campus without permission of the University authorities.	Rustication / expulsion from University. AND / OR Fine not exceeding Rs. 30,000/-
13.	Carrying any activity of what-so-ever nature that does not come under the definition of curricular and co-curricular activities that is not allowed and organized by the University authorities.	Rustication / expulsion from University. AND / OR Fine not exceeding Rs. 20,000/-

Where acts of indiscipline need a prompt resolution or are minor in nature, the Chief Proctor may impose a fine not exceeding Rupees one thousand (Rs. 1000/-) and the proctors may impose a fine not exceeding Rupees five hundred (Rs. 500/-), whereas students will have the right to appeal against the fine to the University Discipline Committee.

HOSTEL REGULATIONS

GENERAL

Accommodation in hostels is a privilege and cannot be claimed as a matter of right. Accommodation being limited in hostels may not be provided to all the applicants and will be provided only on the availability of seats in Researchers Hostel. The residential accommodation is an equal and merit based opportunity and preference is given only to those applicants who hail from far-off places.

Researchers Hostel Peshawar:
45 Rooms, 90 Seats (2-Seater)

The hostel is looked after by a resident warden, who is responsible for the implementation of hostels rules, maintenance of order and discipline in the hostel. The Resident Warden is the first point of contact between the Resident students and university administration.

All complaints regarding any student or member of hostel staff, any queries and any problems relating to hostel shall be brought forth before the Resident Warden. Students must never take matters into their own hands. Bearers and other staff have been provided in the hostel to facilitate resident students. The Provost serves as the overall in-charge of the hostels and sets policy guidelines for the hostel administration.

Security officer will supervise a team of highly trained security guards recruited from retired Pakistan Army personnel. Security guards will perform duty on the gates of the hostels who will only allow lawful residence into hostels. Security officer will be overall incharge of security of hostel. He can pay surprise visits to rooms of the hostel at any time for check of any weapon, drugs, intoxicant, rods, daggers and harmful materials etc. The residents of hostel are required to abide by the rules and regulations of the university hostel as laid down in this prospectus and notified from time to time by the hostel and university administration. Misconduct by any resident student may be punished directly by the Resident warden with a fine of up to Rs. 10000/- or it may be reported by the Resident Warden to the Convener Hostel Disciplinary Committee through the Warden for further action. The Hostel Discipline Committee may forward any case to University Discipline Committee (UDC), if it deems fit.

1 ADMISSION

1.1 Hostel admission will be granted only to those students who are on regular rolls of the University. The facility of hostel accommodation to full time postgraduate students may be provided subject to availability.

1.2 Students desirous of hostel accommodation are required to apply on the prescribed hostel admission form on or before the last date announced for the purpose. Students shall submit duly completed forms, alongwith five Passport size photographs duly attested by the head of the concerned department, to the office of the Head of their respective department. The forms after necessary scrutiny will then be forwarded to office of the Provost.

1.3 Seats in the hostel will be allocated on first come first serve basis while preference will be given to those students who belong to far flung areas. Seniority will be maintained from the date of application for hostel accommodation. Local students (Peshawar district) will not be provided hostel facility in any case.

1.4 The hostel authority has the right to refuse/cancel hostel admission of students who misuse their privilege.

1.5 A student can request the cancellation of his/her hostel admission and eligible to receive funds/hostel charges as under:

a. Full charges will be refundable upto 15 days of the allotment of hostel accommodation after necessary adjustments if any.

b. 50% hostel charges alongwith refundable amount i.e. Hostel & Mess Security, will be refundable till one month of the allotment of hostel accommodation after necessary deduction if any.

c. No refund will be entertained after one month of hostel allotment except refundable/ adjustable hostel charges i.e. Hostel & Mess Security.

1.6 A student whose admission is cancelled by the hostel authorities on disciplinary grounds shall not be entitled to receive his hostel security.

2 ALLOTMENT

The warden of a hostel shall provide room/seat to a student within three days of the submission of his/her hostel card. However, handing over/possession may take longer depending upon the time required to complete the process of shifting by ex-room holders.

3 HOSTEL DISCIPLINE & ORDER

3.1 The Residents students must submit an undertaking of good conduct as provided by the university on judicial stamp paper before they can be issued hostel admission cards. The affidavits must be duly signed by the parent/guardian of the concerned student. A student, who fails to submit the duly filled affidavit, shall not be allowed to enter the hostel. The following must also be

ensured with regards to the guardian of a student:

(a) A guardian can only be a Blood Relative i.e. elder sibling, paternal or maternal uncle.

(b) The parent/guardian must accompany the student to the hostel and he/she would be required to submit a copy of his/her CNIC along with the affidavit.

(c) Any student, who fails to furnish the above, shall not be allowed to enter the hostel premises.

(d) Every resident student shall be issued a boarder card, after due verification and collection of duly filled affidavits. The students must keep these cards at all times with them and they will be allowed entry into their hostels only after presenting this card to the security guard.

(e) Residents shall abide by hostel rules and regulations in letter and spirit. Violation of hostel rules and regulations or any order issued by the hostel administration shall render a resident liable for imposition of fine and/or expulsion from the hostel and to such other actions as deemed fit by the University authorities.

3.2 Anybody (be it a student of the university) who is not a resident of the hostel is not allowed to enter or stay in the hostel premises.

3.3 Resident students can entertain their guests within the prescribed visiting hours only in the guest rooms prescribed for the said purpose in each hostel. No resident can entertain a guest in his room.

3.4 Residents are strictly forbidden of keeping any arms, intoxicants, drugs, rods or daggers, and harmful materials etc in the hostel. Any violation of this rule will result in serious disciplinary against the violator and may lead to imposition of heavy fines and expulsion from the hostel. The hostel administration may initiate criminal proceedings against the violator and refer the matter to the police.

3.5 Every Resident student is responsible for the peace and tranquility of hostel environment. Resident students are not allowed to play music or any instrument loudly.

3.6 Residents are not allowed to participate in any political activity.

3.7 Residents are not allowed to invite any political figure, scholar or any individual for any speech, lecture or sermon or to circulate any unpublished or published material for this purpose.

3.8 Residents are not allowed to assemble crowds or congregations within the hostel premises for any purpose e.g lunch, dinner, iftaar, political etc.

3.9 Entry of females into boys' hostels is strictly prohibited & vice versa.

3.10 Residents shall keep their rooms clean and tidy. They shall also be responsible to keep their rooms

properly locked in case they leave the room. Residents shall not keep expensive items (cost of which exceeds Rs. 1000/-) or cash in their rooms. The hostel authorities will not be responsible for any loss.

3.11 Residents are not allowed to park bicycles, motorcycles or cars within the hostel premises. The hostel authorities would not be responsible for any loss or damage incurred by the student.

3.12 Residents are not allowed to ride bicycles or motorbikes inside the hostel premises. Any violation will be dealt with seriously.

3.13 Resident students shall not use and shall not allow the use of their accommodation for any purpose other than that prescribed and allowed by the hostel administration.

3.14 Resident students who in the view of the hostel authorities are not residing in their rooms shall have their hostel admissions cancelled.

3.15 Any complaints against the hostel staff may be brought into the notice of the hostel warden or the provost. Residents are not allowed to deal with the hostel staff directly on their own.

3.16 Resident students shall not insist on the hostel bearers to bring contraband goods for them. Residents shall not insist on the hostel staff to indulge in activities other than their prescribed job responsibilities.

3.17 The Warden of the hostel may impose a fine of up to Rs. 5000/- on any resident student who violates the hostel rules and regulations or orders of the hostel authorities. Prior to imposing any penalty on the Resident Student the Warden may serve him with a show cause notice to which student must respond in writing within the specified timeframe. The Warden may decide to do away with any penalty if he finds the response of the student satisfactory or may decide otherwise. The Warden may forward the case to the Hostel Discipline Committee through the Senior Warden for further action. The Hostel Discipline Committee can report a case of indiscipline to the University Discipline Committee if it deems fit.

3.18 Appeal

An appeal against the punishment awarded by the Resident Warden shall be forwarded to the Hostel Discipline Committee within fifteen days.

4 HOSTEL DISCIPLINE COMMITTEE

4.1 The Hostel Discipline Committee (HDC) will be formed by the Provost under clause 8 of Khyber Pakhtunkhwa, UET Ordinance No. XIII of 1980 and (amended) Ordinance No. IX of 1981.

4.2 Cases of indiscipline by the resident students may be forwarded to the Hostel Discipline Committee by the Resident Warden. The Convener of HDC in consultation with the Provost will call a meeting of HDC, at a place and time convenient to the committee members, to conduct hearings in the case.

4.3 The Hostel Discipline Committee will decide the cases according to hostel conduct and discipline regulations.

4.4 The Hostel Discipline Committee may forward the cases needing severe penalties (such as imposition of a fine of more than Rs. 40,000/- and or expulsion/rustications from the university) to the University Discipline Committee.

4.5 The decision of the HDC will be communicated in writing and will be duly signed by all members. The Assistant Provost will be responsible for recording the minutes and decisions of the committee, keeping proper record of all cases, and communication of decisions to all members, concerned students and wardens.

5 APPEAL

5.1 An appeal against the punishment awarded by the Hostel Discipline Committee shall be forwarded to the University Discipline Committee.

5.2 No appeal by student against the decision of the Hostel Discipline Committee shall be entertained unless it is presented within 15 days of the date on which the decision is communicated to him/her.

6. HOSTEL CHARGES

Hostel charges can be changed from time to time by the University authorities. Hostel charges are given as follow:

S.No.	Description of Charges	Amount (Rs.)
1.	University Funds (Non-Refundable / Non-Adjustable)	45,000.00
2.	Hostel Funds (Non-Refundable / Non-Adjustable)	20,000.00
3.	Hostel Security (Refundable / Adjustable)	10,000.00
	Total	**75,000.00**

7 HOSTEL GATES TIMINGS

7.1 Following timings will be observed for boys hostels.

Season	Opening gate Time	Closing gate Time
Winter	7:00 A.M	10:00 P.M
Summer	6:00 A.M	11:00 P.M

7.2 A Boarder card will be issued by the provost office to the residents. All the students are subject to keep the Boarder card with them in the hostel and university premises. This card will serve as a proof of a student's identity as a Boarder. No student will be allowed entry into the hostel without his Boarder Card.

8 NOTICES & WALL CHALKING

No resident will be allowed to paste or exhibit any notice printed/hand written or other material, in writing anywhere in the hostel except those duly signed by the hostel warden; no resident student is allowed to engage in wall chalking inside the hostel premises. Any violation of this rule is subject to strict disciplinary action.

9 COMPLAINTS

All complaints about matters relating to the hostels shall be reported to the warden of the hostels. Students must never take matters into their own hands, otherwise they'll be held liable for strict disciplinary action.

10 UTENSILS, FURNITURE AND ELECTRIC INSTALLATIONS.

10.1 Residents are not allowed to take utensils from the dining hall/hostel mess and furniture from common room to their rooms or other hostels. Residents are not allowed to move any hostel furniture or other items from their designated places. Any violation will be subject to strict disciplinary action.

10.2 Every Resident of the hostel will be provided with a bed. A table and a chair will be provided on room basis. He/she will be responsible for any loss or breakage thereof. Residents who willfully destroy or damage any hostel property shall pay for damages and will be heavily fined.

10.3 All rooms of hostels have necessary electric fittings. Student/s residing in these rooms shall be responsible for the proper use and safety of these fittings.

11 COMMON ROOM

11.1 This hostel shall have a Common Room Committee comprising of three to five resident students of that hostel and shall be appointed by the concerned Warden. The Committee will look after the affairs of the Common Room under the supervision of the hostel warden.

11.2 The Resident Warden shall take actions to provide residents with newspapers, magazines, material for indoor games and fulfill other

maintenance requirements of the hostel. These needs shall be met through the contingency fund of the hostel. The Resident Warden shall determine the appropriation of contingency funds for these purposes.

11.3 Film shows are not allowed inside the hostels. Special permission of the Provost must be sought for the arrangement and use of microphones in any function whatsoever inside the hostel premises. Non residents shall not be allowed to enter and participate in any activity inside the hostel premises without the prior permission of the warden. No professional artist shall be invited to perform inside the hostel premises.

11.4 Social and cultural activities like indoor games, dramas, debates etc. can be arranged by resident students in the hostel from time to time with the permission of the Resident Warden. The Resident Warden shall decide the fate of such requests through consultation with the Senior Warden and the Provost.

12 HOSTEL STAFF

12.1 Private/personal servants are not allowed in hostels. Every hostel is manned with designated staff to look after the needs of resident students e.g. bearers, water carriers, sweepers and gardener etc. The hostel staff is answerable to the warden of the hostel. Any complaint against the staff should be communicated to the warden of the hostel in writing. Staff is required to serve the resident students inside the hostel premises according to the duties assigned to them by the hostel administration.

12.2 Misbehavior by the resident students with the hostel staff is subject to strict disciplinary action against the perpetrators.

13 PROHIBITION OF VALUABLES

13.1 The resident students are not allowed to keep valuable items like car, motorcycle, VCR, VCP, Video Camera, T.V Set, gold, expensive mobile phones, large sum of money etc. The hostel administration shall bear no responsibility in case of any loss or theft.

13.2 Resident students are allowed to keep computers, Laptops without external speakers/woofers in their rooms at their own risk for educational purposes only. The hostel administration shall bear no responsibility in case of any loss or theft.

14 REGULATIONS FOR POSTGRADUATE STUDENTS

M.Sc students can avail hostel boarding facility for maximum of three (03) years from date of admission in University or completion of degree whichever is earlier.

Ph.D. students can avail hostel boarding facility for maximum period of four (04) years from date of admission in University or completion of degree whichever is earlier.

15 CLOSURE OF HOSTELS

The university hostels shall remain closed during the vacations. All resident students shall be required to vacate the hostels except those who are in examination or have enrolled in summer semester. The administration may provide an alternate arrangement for those who are in examination or enrolled in summer semester. Foreign students may be allowed to stay in their hostel during vacations.

16 Guests

Boarder students will not be allowed to invite female guests for casual meals or for night stay without the prior permission of the hostel warden/Provost.

A: REGULATIONS FOR HOSTEL WARDEN

1.	Violation of Hostel Rules or Disobeying the orders of Hostel Administration	First time: Fine upto a maximum of Rs. 5000/- Second time: Cancellation of Hostel Privilege for next sessions and/ or expulsion from hostel.
2.	Using Electric Heaters/Air Conditioners	First time: Fine upto a maximum of Rs. 5000/- and recovery of estimated electricity charges alongwith confiscation of the appliances Second time: Cancellation of Hostel Privilege for next sessions and/ or expulsion from hostel.
3.	Installing internal locks in the allotted rooms	Fine upto a maximum of Rs. 5000/-
4.	Playing games in hostel lawns or corridors	Fine upto a maximum of Rs. 5000/-
5.	Smoking in hostel premises, sleeping in prayer hall or common room/study room and any matter of this nature	Fine upto a maximum of Rs. 5000/-
6.	Keeping non-residents in the room	Fine upto a maximum of Rs. 5000/-and cancellation of hostel privilege for next sessions and/or expulsion from hostel.

B: REGULATIONS FOR HOSTEL DISCIPLINE COMMITTEE

1.	Keeping non-residents in hostel room	First time: Fine upto a maximum of Rs. 40,000/- Second time: Cancellation of Hostel Privilege for next sessions and/or expulsion from Hostel.
2.	Keeping arms, explosives, intoxicants, and drugs or anything alike.	Fine upto a maximum of Rs.40,000/- and cancellation of hostel privilege for next session and/or expulsion from hostel.
3.	Playing games in hostel lawns and corridors.	Fine upto a maximum of Rs. 20,000/-
4.	Misbehavior with Hostel Staff or Administration or fellow students.	Fine upto a maximum of Rs. 40,000/- and/or expulsion from Hostel and/or cancellation of hostel privilege for next sessions.
5.	Invitation to any political figures, scholar or any individual for any speech, lecture, sermon or to circulate any unpublished or published material for this purpose inside or outside the hostel. Pasting posters/notices etc. without the written permission of hostel administration and/or wall chalking and such other activities.	Fine upto a maximum of Rs. 40,000/- and/or expulsion from hostel and/or cancellation of hostel privilege for next sessions.
6.	Damaging/theft or misuse of hostel property and hostel card	Recovery of loss and Fine upto a maximum of Rs. 40,000/- and/or expulsion from hostel and/or cancellation of hostel privilege for next sessions.
7.	Subletting of one seat or room to outsiders	Cancellation of Hostel seat and fine of Rs. 10,000/- to 20,000/- for subletting a seat and fine of Rs. 20,000/- to 40,000/- for subletting a room.
8.	Willful absence from HDC meeting by a Student	A fine of upto Rs. 10,000/- for the first time and cancellation of hostel seat and exparte action.

S.No.	Designation	Name	Phone
1	Provost, University Hostels	Prof. Dr. Khan Shahzada	091-9222223
2	Deputy Provost, University Hostels	Mr. Azeem Khan	0333-5987156
3	**Researchers Hostel Hayatabad** Warden	Dr. Zubair Ahmad Khan	0345-9370602

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Produced by:
Directorate of Media & Publications
University of Engineering & Technology,
Peshawar-Pakistan
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