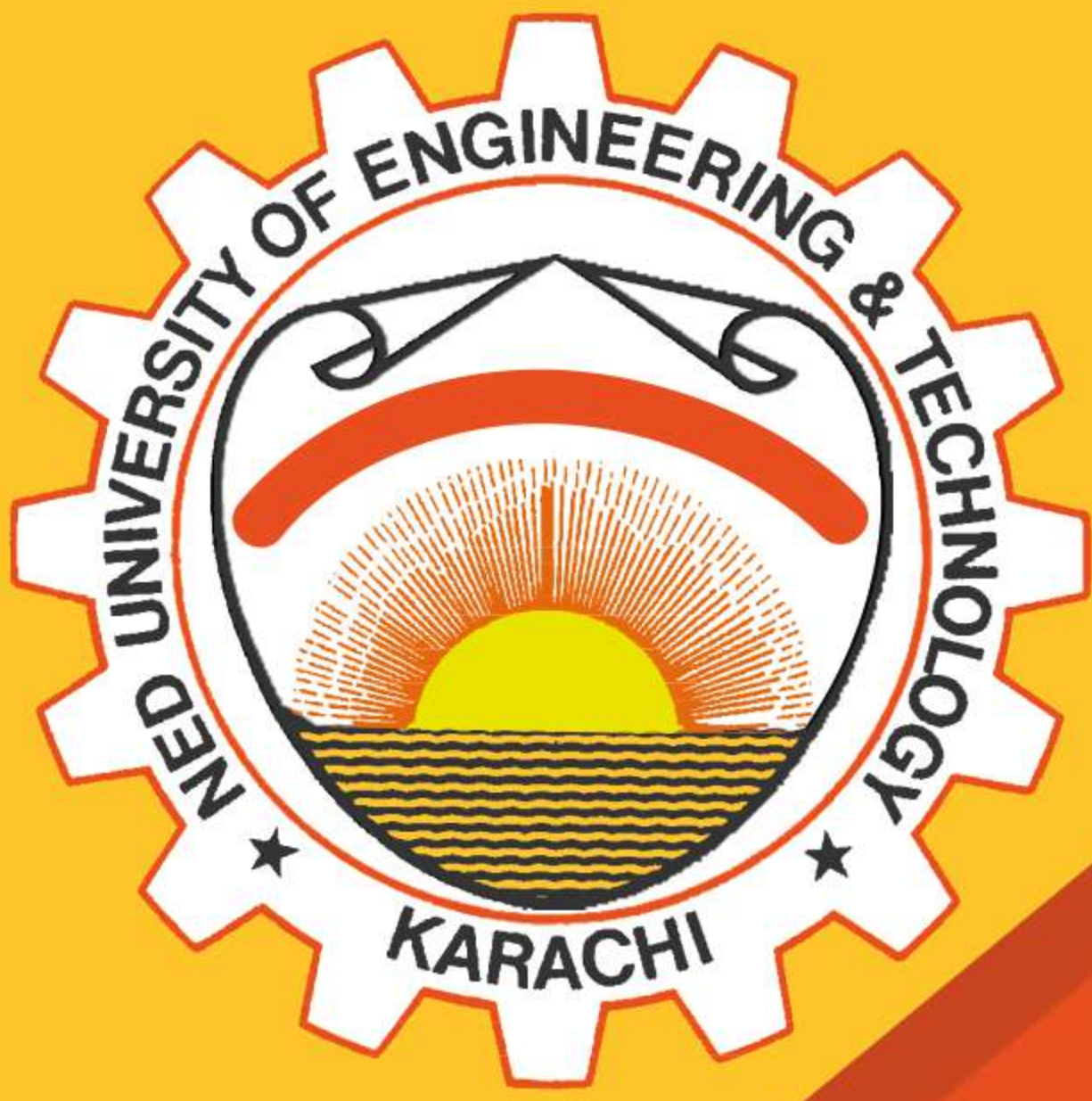




UNDERGRADUATE
PROSPECTUS 2024

NED UNIVERSITY OF ENGINEERING & TECHNOLOGY



www.neduet.edu.pk



NEDUETOfficial



FOREWORD

Greetings and a warm welcome to NED University of Engineering & Technology, a prestigious institution with a rich legacy as one of Pakistan's oldest and most esteemed engineering universities. We are delighted to present this comprehensive University prospectus, providing valuable insights into our institution and the numerous opportunities that await you within its confines.

With a history of over a century in academic excellence, NED University offers a diverse range of degree programmes, encompassing 33 bachelor's degree programmes across various disciplines. Additionally, there are two bachelor's programmes at the Thar Institute of Engineering, Sciences and Technology (TIEST), a constituent college of NED University, where students immerse themselves in applied sciences and engineering.

The University's total student population surpasses 12,000, underscoring the trust and recognition earned for maintaining the highest standards in academic and research pursuits. Our consistent recognition in the Times Impact Ranking, especially in the domains of Industry, Innovation, and Infrastructure, reflects our dedication to sustainable development goals. Furthermore, NED University is positioned among the top 2.5 percent of institutions in Asia, according to the prestigious QS Ranking.

Aligned with our robust Strategic Plan, we aim to elevate the University's ranking further. The pride we take in the achievements of our alumni is substantial, as they have left an indelible mark globally in various professional capacities, influencing engineering, technology, and the economy. Their success underscores the quality of education and training imparted at our esteemed institution.

Degree programmes in cutting-edge disciplines such as Artificial Intelligence, Cybersecurity, Robotics, Data Analysis, Gaming & Animation, and national centers focusing on areas like Virtual Reality, Panjwani Hisar Water Institute, Quantum Technologies, Instrumentation Centre, Fire Lab, and Infectious Disease Modeling equip our graduates with contemporary trends crucial for success in a competitive world. Collaborative state-of-the-art laboratories, developed with industry partners and alumni, provide hands-on experiences aligned with modern engineering practices.

Our robust academia-industry linkage enhances student learning through exposure and demand-driven research. The establishment of the UNESCO Chair in Sustainable Urban Regions signifies international recognition of our quality and prestige. To foster a global perspective, mandatory foreign language learning for all students and mobility programs providing exposure to international universities are integral parts of our educational approach.

Core values of ethics, integrity, and leadership are instilled in our students, shaping them into socially responsible individuals. The NED experience not only enhances technical acumen but also encourages multidisciplinary activities in education, service, and research, nurturing entrepreneurship skills.

Within our friendly, supportive, and diverse environment, we encourage both faculty and students to reach their utmost potential. A merit-based admission process ensures fairness and impartiality, providing deserving individuals with the opportunity to embark on a transformative journey of knowledge and personal growth. Additionally, the University has established merit scholarships from the admission stage till the last semester to support and encourage talented students.

On behalf of the entire NED University community, I extend best wishes to all aspiring students seeking admission to our undergraduate programs. May this prospectus serve as your guide on the path toward a fulfilling and successful future. Best of luck on your journey!

Dr. Sarosh Hashmat Lodi
Vice-Chancellor



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VISION

“Be a leader in enabling Pakistan's social and economic transformation”

MISSION

“Acquire education and research excellence in engineering and allied disciplines to produce leadership and enabling application of knowledge and skills for the benefit of the society with integrity and wisdom”

QUALITY POLICY

NED University of Engineering and Technology believes in establishing environment conducive to continual improvement in its efforts for providing the highest level of quality education.

This University is making all out efforts to raise its standards through teaching excellence and quality research. These efforts are carried out with involvement of the entire University work force to obtain utmost possible satisfaction of its customers.

Our endeavours are to make our students useful to society in particular and to humanity in general. In dealings with industry and utilities, attempts are made to maintain standards of integrity as well as quality.





QUALITY ASSURANCE

Quality Enhancement Cell, QEC (previously known as Quality Management Cell) was established at NED University in 1999 with the aim to develop and implement Quality Management System in the University. The cell successfully acquired ISO 9000 certification in the year 2002. Since then, the QEC has been instrumental in assuring quality to its customers, and stakeholders, and has successfully transformed the QMS standards to ISO 9001:2015. With the advent of QAA in recent years, QEC NED has coordinated with HEC with the spirit of continual improvement. In pursuance of QAA-HEC instructions, NED University has successfully established the QECs in all affiliated colleges/ institutes of the University.

Quality Assurance Agency (QAA) of the HEC assesses the progress of the Quality Enhancement Cells (QECs) of all Universities through a quantitative 'Scorecard System' based upon their performance and participation in quality-related processes. During the reporting period, QEC-NED has been assigned a score of 97.81% with a placement in 'W' Category.

Main responsibilities of QEC office are;

- *Conducting faculty/employee development through trainings*
- *Correspondence with HEC and other agencies for QEC/University Ranking*
- *Self-Assessment of academic programmes*
- *Quality Assurance in affiliated colleges*
- *Processing HEC NOC for academic all programmes*
- *Masters/PhD Programme Review*
- *Institutional Performance Evaluation (IPE)*
- *News Coverage of events*
- *Internal Quality Audits (IQAs)*
- *Surveillance Audits*
- *Board of Review (University Level/Department Level) Meetings*
- *University Level KPIs*
- *Yearly Quality Objective*
- *Developing and improving Quality Standard Procedures (QSP) and Standard Opening Procedures (SOPs)*
- *Acquiring and analyzing stakeholders' feedback*
- *Customer Complaint Management*





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CHAPTER 1

General Information



1.1 HISTORICAL BACKGROUND OF THE UNIVERSITY

The NED University of Engineering & Technology, was established in March 1977 under an Act of the Provincial Assembly of Sindh after upgrading of the former NED Government Engineering College, which was set up in 1921. The NED University is thus one of the oldest institutions in Pakistan for teaching and producing Engineering graduates. Prior to this, the D.J. Science College, used to run classes to train subordinates for the Sindh P.W.D., the Municipalities and Local Boards.

On August 29, 1921 College Principal C.S Shahani made a concerted effort to get Engineering Degree classes started to meet demands of Civil Engineers on the project for completion of the Sukkur Barrage. Application to this effect was made to the University of Bombay through the Commissioner of Sindh, who was ex-officio president of Sindh Collegiate Association (a registered society of subscribers for providing higher education in Sindh). The Bombay University, however, rejected the application on the grounds of insufficient finances and insisted on entirely separate buildings and laboratories for the engineering college as a separate institution. After collection of donations from the Puribai and Becharbai Trust, Vishandas Fatehchand Brothers and one huge donation (for that time) of Rs.150,000 from the heirs of Mr. Nadirshaw Edulji Dinshaw, the new college buildings and laboratories were constructed on a separate land. The new college was originally the Prince of Wales Engineering College but later renamed in memory of Nadirshaw Edulji Dinshaw. The NED College was provisionally granted affiliation on 23-05-1923 by the University of Bombay for the First and Second Year courses in Civil Engineering and 78 students were provisionally admitted into first year classes in 1922. Permanent affiliation followed in February 1927.

The first-full time Principal of NED Engineering College was Mr. G.N.Gokhale who joined on 1st July 1923. Prior to this, Rai Sahib Bhupatrai had acted as Honorary Principal. The first professor (and Vice Principal) was Mr. S.B. Jannarkar who, along with Mr. Gokhale, did all the spadework in organizing and equipping the various departments, and ordering the equipment for the Power House, Boiler Room, Hydraulics Laboratory, Engine Room and Machine Shops.

The original NED Engineering College was housed in four blocks of buildings and two sheds. The main block was named as Seth Fatehchand Dewandas Khilnani Hall. The block housing the Power House, Electrical and Hydraulics Laboratories, and Workshops was named after Bai Puribai and Bacharbai. Further additions were made to this block to provide accommodation for the Machine Shop on the ground floor and a (Mechanical) Drawing Hall on the first floor. The fourth block, completed in 1945, contained a Classroom and Clerk's Office on the ground floor and another (Civil) Drawing Hall on the first floor.

Two sheds were also built, one to house the Carpentry and Smithy Shops, and the other, alongside the Electrical Laboratory and Engine Room, to train technicians. The total cost of the buildings was just over Rs. 265,000 and the cost of equipment (including machinery, electrical instruments; models, steam, gas and oil engines; surveying and leveling instruments), books and furniture was just under Rs. 400,000.



The college remained affiliated to the University of Bombay from its inception in 1922 to 1947, after which it was taken over by the Government of Sindh; renamed as NED Government Engineering College and affiliated to the University of Sindh. After establishment of the University of Karachi in 1951, the affiliation of the College was transferred to this University. In 1964, a comprehensive plan was prepared to shift the college from its location in the congested downtown area (where no expansion was possible) to a new site adjoining the University of Karachi. The project was carried out with the assistance of the World Bank which provided Rs.118 millions in two phases and the College was shifted to its new 40 hectares Main Campus in 1975.

On the 1st of March, 1977 the NED Government Engineering College became the NED University of Engineering and Technology. From an enrolment of 50 students in 1923, the student population, at undergraduate, graduate and Ph.D. levels, has now gone more than 12000. The Department of Biomedical Engineering is located at NED LEJ Campus for which the land and building - estimated value Rs. 350 million - was donated by (Late) Latif Ebrahim Jamal, a well-known philanthropist.

The first Vice Chancellor of the University was Mr. A. M. Akhoond who was succeeded in sequential order by Prof. Dr. A. T. Khan, Prof. Dr. Jameel Ahmed Khan, Prof. Dr. M. Munir Hasan, Prof. Dr. A. Q. Qazi, Engr. Abul Kalam and Prof. Dr. M. Afzal Haque. Dr. S. H. Lodi is the present Vice Chancellor.

1.2 Thar Institute of Engineering, Sciences and Technology (TIEST)

TIEST is established at Mithi, Tharparkar which is around 350 km towards East from Karachi. The main purpose of establishing this institute was to provide direct access of quality education to the deprived students of this district as well as producing qualified workforce for the future need of this rapidly developing area of the province.

TIEST is currently established in a temporary building which will eventually be shifted to its main campus which is going to be established at a land of around 300 acres on the main road leading to Islamkot and is almost in the mid of Mithi and Islamkot. It is also at a reasonable distance from the Airport. At TIEST currently, Bachelor of Computer Science and Bachelor of Civil Engineering programmes are offered with 60 and 50 seats respectively. First Principal of TIEST is Prof. Dr. Muhammad Raza Mehdi, who was succeeded by Prof. Dr. Nasir Uddin Shaikh





1.3 Administration & Academic Support

Vice-Chancellor

Dr. S. H. Lodi

*B.E. (Civil) NED UET; M.S. Oregon State University, USA;
Ph.D. Heriot-Watt University, UK*

Pro Vice-Chancellor

Prof. Dr. Muhammad Tufail

*B.E. (Mech.) NED UET;
M.Sc. (Manufacturing System) Nottingham University, UK;
Ph.D. Nottingham University, UK; C.Eng; FIMechE, Mem ASME*

Dean Faculty of Civil and Petroleum Engineering, Dean (CPL)

Prof. Dr. Asad-Ur-Rehman Khan

*B.E. (Civil) NED UET; M.S. (Civil) KFUPM, Saudi Arabia;
Ph.D. (Civil) KFUPM, Saudi Arabia*

Dean Faculty of Mechanical & Manufacturing Engineering, Dean (MME)

Prof. Dr. Syed Amir Iqbal

*B.E. (Mech.) NED UET; M.E. (Mech.) NED UET;
Ph.D.(Mech.) University of Manchester, UK*

Dean Faculty of Electrical & Computer Engineering, Dean (ECE)

Prof. Dr. Saad Ahmed Qazi

*B.E. (Electrical) NED UET; M.Sc. (DSP) UK;
Ph.D., UK; MIEE, UK; MIEEE, USA*

Dean Faculty of Chemical & Process Engineering, Dean (CPE) (Acting)

Prof. Dr. Syed Amir Iqbal

*B.E. (Mech.) NED UET; M.E. (Mech.) NED UET;
Ph.D.(Mech.) University of Manchester, UK*

Dean Faculty of Architecture and Sciences, Dean (ASC)

Prof. Dr. Noman Ahmed

*B.Arch.; M.C.P., METU, Turkey;
Ph.D., UK; MPCATP*

Principal, Thar Institute of Engineering, Sciences and Technology (TIEST)

Prof. Dr. Nasir Uddin Shaikh

*B.E.(Mech.) NED UET; M.Sc(Mech.) NED UET;
Ph.D. (Thermofluids) Concordia University, Montreal, Canada*





Registrar (Acting)	Director, QEC
Mr. Ghazanfar Hussain <i>M.Phil; Ph.D. (In progress) UoK; M.Sc.(Physical Chemistry), UoK</i>	Dr. Muhammad Wasif <i>B.E. (Mech.); M. Engg. (Mfg. Engg.) Ph.D., Canada</i>
Additional Registrar	Director of Works & Services and Provost
Engr. Rubina Naz <i>B.E. (Civil), MHRM, MS (Public Administration)</i>	Engr. S. Wasi Uddin <i>B.E. (Civil); M.Engg.(Env.)</i>
Deputy Registrar (Academic)	Controller Student Affairs (Acting)
Mr. Irfan Ali <i>M.A. (Economics)</i>	Dr. Ali Hasan Mahmood <i>B. E. (Textile); M. Engg (Textile); Ph.D. (Textile), University of Manchester, UK</i>
Deputy Registrar (Security & General) / Coordination	Director Procurement
Mr. Makhdoom Khalid Hashmi <i>M.A. (Economics)</i>	Mr. Abdul Wahab <i>M.B.A. (Finance and Accounting)</i>
Controller of Examinations (Acting)	Director Industrial Liaison (Acting)
Mr. Safi Ahmed Zakai <i>B.E. (Electrical) NED UET; MBA (Marketing), IBA Karachi; M. Engg. (Telecommunications) NED; M.Phil (Management), UoK</i>	Dr. Ali Zulqarnain <i>B.E. (Mechanical) NED UET; M. Engg. (Manufacturing) NED UET; Ph.D. (Quality Management) NED UET</i>
Additional Controller of Examinations	Director, Information Technology Department (Acting)
Syed Rafiq ul Hoda <i>B.Sc. Hons. (Mathematics) UoK; M.Sc. (Applied Mathematics) UoK; MCS, MAJU; MS (Comp. Sci & Info Tech) NED UET; Ph.D. (Comp Sci. & Info. Tech.) (In Progress) NED UET</i>	Dr. Muhammad Asad Arfeen <i>B.E. (Comp. & Info. Sys.); M.Engg (Comp. Sys); Ph.D. (Teletraffic Engineering) New Zealand</i>
Director of Finance	Director General, NED Academy (Acting)
Mr. Muhammad Sajeeruddin <i>B.Com UoK; L.L.B. UoK; A.C.M.A. (Accounts) ICMAP; F.C.M.A. (Accounts) ICMAP.</i>	Prof. Dr. Bilal Zahid <i>B.E. (Textile) NED UET; M.Engg. (Textile) NED UET; MBA (Textile Management) PIMSAT, Karachi; Ph.D., (Textile Science & Technology), UK</i>
Resident Auditor (Acting)	Director, Office of Research, Innovation & Commercialization (ORIC) (Acting)
Mr. S. M. Hassan Shamsie <i>B.Com UOK; M.A. (Economics) UoK</i>	Dr. Riazuddin <i>B.E. (Electrical) NEDUET, M.Engg.(Electrical) NEDUET, Ph.D. (Mechatronics), GIST, South Korea.</i>
Librarian (Acting)	Principal Medical Officer, Medical Department
Ms. Huma Sardar <i>B.Sc. (Microbiology) UoK; B.L.I.S. (Library and Info. Science) UoK; M.L.I.S. (Special Libraries) UoK</i>	Dr. Mariam Alam <i>M.B.B.S (Baqai Medical University)</i>
Director University Advancement & Financial Assistance (Acting)	Technical Assistant to the Vice Chancellor
Engr. Dr. Muhammad Amir Qureshi <i>B.E. (Textile) NED UET; M.Engg. (Textile) NED UET; Ph.D., Heriot-Watt University, UK</i>	Dr. Danish Ur Rehman Khan <i>B.E. (Computer Sys.) NED UET; M. Engg. (Electrical) NED UET; M.Engg. (Computer Networks & Performance Evaluation) NED UET Ph.D., NED UET</i>





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CHAPTER 2

Academic Programmes and Departments



2.1 THE FACULTIES

The teaching departments under various Faculties are listed below:

2.1.1 Faculty of Civil and Petroleum Engineering i) Civil Engineering (Also administering Bachelor of Engineering in Civil with Specialisation in Construction Engineering) ii) Urban and Infrastructure Engineering (Administering Bachelor of Engineering in Civil with Specialisation in Urban Engineering) iii) Petroleum Engineering iv) Earthquake Engineering v) Environmental Engineering	2.1.4 Faculty of Chemical & Process Engineering i) Chemical Engineering ii) Polymer & Petrochemical Engineering iii) Materials Engineering iv) Metallurgical Engineering v) Food Engineering
2.1.2 Faculty of Mechanical & Manufacturing Engineering i) Mechanical Engineering ii) Textile Engineering (Also administering Bachelor of Science in Textile Sciences) iii) Industrial & Manufacturing Engineering iv) Automotive & Marine Engineering (Administering Bachelor of Engineering in Automotive)	2.1.5 Faculty of Architecture and Sciences (ASC) i) Architecture and Planning (Also Administering Bachelor of Science in Development Studies) ii) Economics and Management Sciences (Administering Bachelor of Science in Economics & Finance and Bachelor of Science in Management Sciences) iii) Mathematics (Administering Bachelor of Science in Computational Finance) iv) Physics v) Chemistry (Administering Bachelor of Science in Industrial Chemistry) vi) English Linguistics & Allied Studies (Administering Bachelor of Science in English Linguistics) vii) Essential Studies
2.1.3 Faculty of Electrical & Computer Engineering i) Electrical Engineering ii) Computer & Information Systems Engineering (Administering Bachelor of Engineering in Computer Systems) iii) Electronic Engineering iv) Telecommunications Engineering v) Biomedical Engineering vi) Computer Science and Information Technology (Administering Bachelor of Science in Computer Science) vii) Software Engineering	2.1.6 Thar Institute of Engineering, Sciences and Technology (TIEST) i) Computer Science & Information Technology (Administering Bachelor of Science in Computer Science) ii) Civil Engineering





2.2 Teaching Departments

2.2.1 Department of Civil Engineering

(Also administering Bachelor of Engineering in Civil with Specialisation in Construction Engineering)

Chairperson

Prof. Dr. Abdul Jabbar Sangi

Professor Emeritus

Prof. Dr. Sahibzada Farooq Ahmad Rafeeqi
B.E. (Civil) NED UET; M.S. (Civil) KFUPM, Saudi Arabia;
Ph.D. (Structures), Heriot-Watt University, UK

Professors

1. Prof. Dr. Asad-ur-Rehman Khan
B.E. (Civil) NED UET;
M.S. (Civil) KFUPM, Saudi Arabia;
Ph.D. (Civil) KFUPM, Saudi Arabia
2. Prof. Dr. Rizwan-Ul-Haque Farooqui (On Foreign Leave)
B.E. (Civil) NED UET;
M.S. (Civil Engineering) National Uni. of Singapore;
Ph.D. (Civil) Florida International University, USA
3. Prof. Dr. Syed Imran Ahmed
ALEF Chair Professor and
Director Panjwani Hisaar Water Institute
B.E. (Agri Engg.) Sindh Agriculture University;
M.S. (Bio Resource Engg.) Oregon State University, USA;
M.S. (Bio Systems Engg.) IOWA State University, USA;
Ph.D. (Bio Systems Engg.) IOWA State University, USA
4. Prof. Dr. Abdul Jabbar Sangi
B.E. (Civil) NED UET; M.Engg. (Civil) NED UET;
Ph.D. (Civil) Heriot-Watt University, UK
5. Prof. Dr. Amanullah Marri
B.E. (Civil) QUEST, Nawabshah;
M.E. (Civil) Asian Institute of Technology, Thailand;
Ph.D. (Civil) University of Nottingham, UK

Associate Professors

1. Dr. Haider Hasan
B.Sc.(Hons) (Math. & Computing) Kingston University;
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9. Dr. Sajjad Ali
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10. Engr. Shoaib Ahmed (*On Study Leave*)
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11. Engr. Syed Muhammad Noman
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14. Dr. Areeba Syed
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Lecturers

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2. Engr. Hamna Hasan
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3. Engr. Faiza Saeed
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5. Engr. Muhammad Saad Khan
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6. Engr. Samra Masood
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7. Engr. Sadia Moin
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Ph.D. (In Progress) NED UET

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Ph.D. (In Progress) NED UET
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12. Engr. Muhammad Yousuf Iqbal
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14. Engr. Muhammad Saad Ifrahim
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Lab Engineers

1. Engr. Zarqa Manzoor
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2. Engr. Rehan Khan
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2.2.2 Department of Urban and Infrastructure Engineering

(Administering Bachelor of Engineering in Civil with Specialisation in Urban Engineering)

Chairperson

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Professor

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Ph.D. (Urban and Regional Planning) NED UET





6. Engr. Madiha
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7. Engr. Syed Muhammad Fahad Abdullah (*On Study Leave*)
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Ph. D. (In Progress) USA

Lecturers

1. Engr. Shahrukh Khan
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2. Engr. Aqsa Zahid
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3. Engr. Ayesha Ayub
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4. Engr. Narmeen Tanweer Memon
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2.2.3 Department of Petroleum Engineering

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3. Engr. Faizan Ali (*On Study Leave*)
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MS (Petroleum) NTNU, Norway
Ph.D. (In Progress) Malaysia
4. Engr. Aftab Hussain Arain (*On Study Leave*)
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Ph.D. (In Progress) USA

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Ph.D. (In Progress) NED UET
2. Engr. Muhammad Arqam Khan (*On Study Leave*)
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3. Engr. Muhammad Mohsin Yousufi (*On Study Leave*)
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5. Engr. Muhammad Adeem Abbas
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6. Engr. Sania Soomro
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2.2.4 Department of Earthquake Engineering

Chairperson

Prof. Dr. Muhammad Masood Rafi

Professors

1. Prof. Dr. Muhammad Masood Rafi
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Mr. Shahid Hussain
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2.2.5 Department of Environmental Engineering

Chairperson

Prof. Dr. Atif Mustafa

Professors

1. Prof. Dr. Asif Ahmed Shaikh
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2.2.6 Department of Mechanical Engineering

Chairperson

Prof. Dr. Mubashir Ali Siddiqui

Co-Chairperson

Prof. Dr. Muhammad Shakaib

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4. Engr. Talha Bin Nadeem
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12. Engr. Muhammad Umaid Ghauri
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M. Engg. (Industrial & Manufacturing) NED UET
15. Engr. Syed Umair Hassan Kazmi
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16. Engr. Syed Muhammad Hassan Liaquat (On Study Leave)
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1. Engr. Bushra Fatima
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19. Engr. Hafiza Sumaiya Mohsin
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Ph.D. (In Progress) NED UET*
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Workshop Superintendent

Mr. Shaikh Jawaid
DAE (Mechanical); B.Tech. (Mechanical)

2.2.7 Department of Industrial and Manufacturing Engineering

Chairperson

Dr. Maqsood Ahmed Khan

Professors

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MEM (Supply Chain), UK;
Ph.D. (Industrial Engineering), UK*

4. Dr. Asim Zaheer
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3. Engr. Muhammad Zaid Khan
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4. Engr. Syed Raheel Adeel
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5. Engr. Muhammad Danish Saleem
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Ph.D. (In Progress) NED UET

6. Engr. Muhammad Mashiatullah
B.E. (Industrial & Manufacturing) NED UET;
MEM (Industrial Management) NED UET
7. Engr. Muhammad Salman
B.E. (Industrial & Manufacturing) NED UET;
M. Engg. (Manufacturing Engineering) NED UET

IT Manager

Ms. Noreen Jahan
BCIT, NED UET; MCIT, NED UET

2.2.8 Department of Textile Engineering

(Also administering Bachelor of Science in Textile Sciences)

Chairperson

Prof. Dr. Sheraz Hussain Siddique

Co-Chairperson

Prof. Dr. Bilal Zahid

Professors

1. Prof. Dr. Sheraz Hussain Siddique
B.E. (Textile) MUET; M.Sc. (Textile & Clothing), Germany;
Ph.D. (Textile Science & Technology), UK
2. Prof. Dr. Bilal Zahid
B.E. (Textile) NED UET; M.Engg. (Textile) NED UET;
MBA (Textile Management) PIMSAT, Karachi;
Ph.D., (Textile Science & Technology), UK
3. Prof. Dr. Muhammad Dawood Husain
B.E. (Textile) NED UET;
M.Sc. (Textile & Clothing Management), Germany;
Ph.D. (Textile Science & Technology), UK

Associate Professors

1. Dr. Salma Farooq
B.Sc. (Textile Engineering) NCTE Faisalabad;
M.Engg. (Textile) NED UET; Ph.D. (Textile), UK
2. Dr. Ali Hasan Mahmood
B.E. (Textile) NED UET; M.Engg. (Textile) NED UET;
Ph.D. (Textile Science & Technology), UK
3. Dr. Fareha Asim
B.E. (Textile) NED UET; M.Engg. (Textile) NED UET;
Ph.D. (Textile) NED UET
4. Dr. Muhammad Ali
B.E. (Textile) NED UET; M.Engg. (Textile) NED UET;
Ph.D. (Textile Science & Technology), UK
5. Dr. M. Owais Raza Siddiqui
B.E. (Textile) NED UET; M.Engg. (Textile) NED UET;
Ph.D. (Textile), UK
6. Dr. Saira Faisal
B.E. (Textile) NED UET; M.Engg. (Textile) NED UET;
Ph.D. (Textile Science & Technology), UK
7. Dr. Shenela Naqvi
B.E. (Textile) NED UET;
M.Engg. (Textile) NED UET;

Ph.D. (Textile Science & Technology), UK

8. Dr. Quratulain Mohtashim
B.E. (Textile) NED UET; M.Engg. (Textile) NED UET;
Ph.D. (Textile Science & Technology) UK

Assistant Professors

1. Dr. Deedar Hussain
B.Sc. (Textile Engg.) UET, Lahore; M.Engg. (Textile) NED UET;
Ph.D. (Supply Chain Management), Portugal
2. Dr. Farhana Naeem
B.E. (Textile) NED UET; M.Engg. (Textile) NED UET;
Ph.D. (Textile) NED UET
3. Dr. Muhammad Amir Qureshi
B.E. (Textile) NED UET; M.Engg. (Textile) NED UET;
Ph.D. (Textile), UK
4. Dr. Sabeen Jahanzeb
B.E. (Textile) MUET; M. Engg. (Textile) NED UET;
Ph.D. (Textile) NED UET

Lecturers

1. Engr. Tahreem Beg
B.E. (Textile) NED UET; MEM (Industrial Management) NED UET
2. Engr. Danyal Rashid Khan
B.E. (Textile) NED UET; MEM (Industrial Management) NED UET
3. Engr. Maha Farrukh
B.E. (Textile) NED UET; MEM (Industrial Management) NED UET
4. Engr. Sehrish Naveed
B.E. (Textile) NED UET; MEM (Industrial Management) NED UET
5. Engr. Sarah Jaweed
B.E. (Textile) NED UET; MEM (Industrial Management) NED UET
6. Engr. Shehroze Ali Baig
B.E. (Textile) NED UET; MEM (Textile Management) NED UET

IT Manager

Engr. Arsalan Waheed
B.E. (Computer System) NED UET;
M. Engg. (Computer System) NED UET





2.2.9 Department of Automotive and Marine Engineering

(Administering Bachelor of Engineering in Automotive)

Chairperson

Prof. Dr. Ali Raza Jafri

Professors

1. Prof. Dr. Ali Raza Jafri
B.E. (Mechanical) NED UET;
M.Engg. (Mechanical) NED UET;
Ph.D. (Mechatronics), Beijing Institute of Technology, China
2. Prof. Dr.-Ing. Syed Mushahid Hussain Hashmi
B.E. (Mechanical) NED UET;
M.Sc. (Mechanical Energy Systems) NED UET;
Ph.D. (Mechanical), Germany

Associate Professor

Dr. Faraz Akbar
B.E. (Mechanical) NED UET; Ph.D. (Mechanical), UK

Assistant Professors

1. Dr. Munir Ahmed
B.E. (Mechanical) NED UET; M.A.Sc. (Mechanical), Canada;
Ph.D. (Mechanical) NED UET
2. Dr. Saqib Jamshed Rind
B.E. (Industrial Electronics), IIEE-NED UET;
M.Sc. (Automation & Control Engineering), UK;
Ph.D. (Electric Motor Drive Control for Electrical Vehicles), UK
3. Engr. Assad Anis
B.E. (Mechanical) NED UET; M.S. (Mechanical), Finland
4. Dr. Noman Uddin Yousuf
B.E. (Mechanical) NED UET; M.S (Mechanical Engineering), USA;
Ph.D. (Mechanical), New Zealand

Lecturer

Engr. Yasmeen Khan
B.E. (Industrial & Manufacturing) NED UET;
M.S. (Automotive Engineering) NED UET

2.2.10 Department of Electrical Engineering

Chairperson

Prof. Dr. Attaullah Khawaja

Co-Chairperson

Dr. Muhammad Mohsin Aman

Professors

1. Prof. Dr. Saad Ahmed Qazi
B.E.(Electrical) NED UET; M.Sc. (Digital Signal Processing Applications in Communication Systems), UK;
Ph.D. (Intelligent Algorithms and Signal Processing), UK
2. Prof. Dr. Attaullah Khawaja
B.E. (Electrical), MUET; M.Engg. (Electrical) NED UET;
Ph.D. (Electrical), China

Associate Professors

1. Dr. Muhammad Ali Memon
B.E.(Electrical) MUET; M.Engg. (Electrical) NED UET;
MBA, Sindh University; Ph.D. (Power Systems), USA
2. Dr. Muhammad Mohsin Aman
B.E.(Electrical) NED UET; M. Engg. (Electrical Power Systems) NED UET; Ph.D. (Electrical), Malaysia
3. Dr. Riaz Uddin
B.E. (Electrical) NED UET; M.Engg.(Electrical Power Systems) NED UET; Ph.D. (Mechatronics), South Korea

Assistant Professors

1. Dr. Muhammad Javed
B.E. (Electrical) NED UET; M.Sc. (Electrical Engineering) NED UET; Ph.D.(Electrical) NED UET
2. Engr.Shahnaz Tabassum
B.E.(Electrical) NED UET;
M. Engg. (Electrical Power Systems) NED UET
3. Engr.Shoaib Siddiqui
B.E.(Electrical); M. Engg. (Electrical Power Systems) NED UET
4. Dr. Raja Masood Larik
B.E.(Electrical) NED UET;
M. Engg. (Electrical Power Systems) NED UET;
Ph.D. (Electrical Power Systems), Malaysia
5. Dr. Umbrin Sultana
B.E.(Electrical) NED UET;
M. Engg. (Electrical Power Systems) NED UET;
Ph.D. (Electrical) Malaysia
6. Engr.Arjumand Samad
B.E.(Electrical) NED UET;
M. Engg.(Electrical Power Systems) NED UET
7. Dr. Abdurrahman Javed Shaikh
B.E.(Electrical) NED UET; M. Engg.(Electrical) NED UET;
Ph.D. (Photonics), Malaysia
8. Dr. Abdul Ghani Abro
B.E.(Electrical); M. Engg.(Power Systems) NED UET;
Ph.D. (Computational Intelligence), Malaysia





9. Engr. Umar Sajid
B.E.(Electrical) NED UET;
M.Sc. (Communication Engineering & Signal Processing), UK;
Ph. D (In Progress) NED UET
 10. Dr. Krishan Lal Khatri
B.E.(Electrical) MUET; MSEE (Telecommunication) SSUET;
Postgraduate Diploma in Project Management, PIM Karachi;
Ph.D. (Electrical), USA
 11. Dr. Mirza Muhammad Ali Baig
B.E.(Electrical); M. Engg. (Electrical Power Systems) NED UET;
Ph.D. (Automatic Segmentation of Speech), NED UET
 12. Dr. Beenish Sultana
B.E. (Electrical) NED UET; M. Engg. (Electrical) NED UET;
Ph.D. (Electrical), Malaysia
 13. Engr. Adnan
B.E. (Electrical) NED UET; M. Engg. (Power Systems) NED UET
 14. Engr. Muhammad Hassan ul Haq
B.E. (Electrical) NED UET;
M. Engg. (Electrical Power System) NED UET
 15. Engr. Muhammad Hammad Uddin
B.E.(Electrical) NED UET; M. Engg. (Electrical) NED UET
 16. Engr. Fezan Rafique (*On Study Leave*)
B.E. (Electrical) NED UET; M. Engg. (Electrical) NED UET;
Ph.D. (In Progress) China
 17. Engr. Shariq Shaikh
B.E. (Electrical) NED UET;
M. Engg. (Electrical Power System) NED UET
 18. Dr. Abdullah Munir
B.E. (Electrical) NED UET;
M. Engg (Electrical Power System) NED UET;
Ph.D. (Electrical), Malaysia
- Lecturers**
1. Engr. Uzma Perveen
B.E. (Electrical); M. Engg. (Electrical Power System) NED UET;
Ph.D. (In Progress) NED UET
 2. Engr. Muhammad Irfan Sheikh
B.E. (Electrical) NED UET;
M. Engg. (Electrical Power Systems) NED UET
 3. Engr. Ayesha Saeed
B.E. (Electrical) NED UET;
M. Engg. (Electrical Power Systems) NED UET
 4. Engr. Muhammad Omar
B.E.(Electrical) NED UET;
M. Engg. (Electrical Power System) NED UET;
Ph.D (In Progress) NED UET
 5. Engr. Najia Naveed
B.E. (Electrical) NED UET;
M. Engg (Electrical Power System) NED UET;
Ph.D. (In Progress) NED UET
 6. Engr. Iqbal Azeem
B.E.(Electrical) NED UET;
M. Engg. (Electrical Power System) NED UET;
Ph.D. (In Progress) NED UET
 7. Engr. Ayesha Khan
B.E. (Electrical) NED UET;
MEM (Energy Management) NED UET;
Ph.D. (In Progress) NED UET
 8. Syed Muhammad Rashid Hussain
B.E. (Electrical) NED UET;
MEM (Energy Management) NED UET;
 9. Engr. Hiba Kamal Zuberi
B.E. (Electrical) NED UET;
M. Engg. (Electrical Power System) NED UET
 10. Engr. Talha Javed Soleja
B.E. (Electrical) NED UET;
M. Engg. (Electrical Power System) NED UET
 11. Engr. Aiman Najeeb
B.E (Electrical) NED UET;
M. Engg. (Electrical Power Systems) NED UET
 12. Engr. Muhammad Arshad (*On Study leave*)
B.E. (Electrical), MUET;
M. Engg. (Electrical Power System) NED UET;
Ph.D. (In Progress) USA
 13. Engr. Nabeel Fayyaz
B.E. (Electrical), MUET; M. Engg. (Power Systems) NED UET;
 14. Engr. Hafiz Muhammad Furqan
B.E. (Electrical) NED UET;
M. Engg. (Power Systems) NED UET;
 15. Engr. Muhammad Uzair Khan
B.E. (Electrical), MUET;
MEM (Energy Management) NED UET;
 16. Engr. Hafsa Wahid
B.E (Electrical) NED UET; MS (Electrical Engineering) NED UET
 17. Engr. Farah Andleeb Siddiqui
B.E (Electrical) NED UET; MS (Electrical Engineering) NED UET
 18. Engr. Feeha Areej
B.E (Electrical) NED UET; M. Engg. (Power Systems) NED UET
 19. Engr. Urooj Faiz
B.E (Electrical) BUET Khuzdar; M. Engg. (Power) MUET
 20. Engr. Asif Zahoor
B.E (Electrical) QUEST; M. Engg. (Power) MUET
 21. Engr. Nimra Faiz Malik
B.E (Electrical) NED UET; M. Engg. (Electrical) NED UET
- Senior Lab Engineer**
- Engr. Anila Abbas
B.E.(Electrical) NED UET; M. Engg. (Electrical) NED UET
- IT Manager**
- Engr. Syed Muhammad Zahid
B.E. (Electrical) NED UET;
M.Sc. (Computer Science) NED UET;
Ph.D. (In Progress) NED UET





2.2.11 Department of Computer & Information Systems Engineering (Administering Bachelor of Engineering in Computer Systems)

Chairperson

Prof. Dr. Muhammad Ali Ismail

Professors

1. Prof. Dr. Muhammad Ali Ismail
B.E.(Computer & Information Systems) NED UET;
M.Engg.(Computer Systems) NED UET;
Ph.D. (High Performance Computing) NED UET
2. Prof. Dr. Muhammad Khurram
B.E. (Computer Systems) NED UET;
M.Engg. (Computer Systems) NED UET;
Ph.D. (IC Design), New Zealand
3. Prof. Dr. Syed Abbas Ali (**Chairman, CS, TIEST**)
B.E.(Computer Systems) NED UET;
M.Engg.(Electrical) NED UET; Ph.D. (Automatic Speech Recognition & Machine Learning) NED UET

Associate Professors

1. Dr.-Ing. Shehzad Hasan
B.E.(Computer Systems) NED UET;
M.Engg.(Computer Systems) NED UET;
Ph.D. (VLSI Testing), Germany
2. Dr. Muhammad Asad Arfeen
B.E. (Computer & Information Systems);
M. Engg. (Computer Systems);
Ph.D. (Tele-traffic Engineering) New Zealand
3. Dr. Majida Kazmi
B.E. (Electrical) NED UET; M. Engg. (Electrical) NED UET;
Ph.D. (VLSI Design for Digital Image Processing), NUST

Assistant Professors

1. Dr. Shahab Tahzeeb
B.E.(Computer Systems) NED UET;
M.Engg.(Computer Systems) NED UET;
Ph.D. (Computer Systems) NED UET
2. Dr. Syed Zaffar Qasim
B.E. (Computer Systems) NED UET;
M. Engg. (Computer Systems) NED UET;
Ph.D. (Multi-Objective Optimization), NED UET
3. Engr. Anita Ali
B.E.(Computer Systems) NED UET;
M.Engg.(Computer Systems) NED UET
4. Engr. Hina Danish Khan
B.E.(Computer & Information Systems) NED UET;
M.Engg.(Computer Systems) NED UET
5. Dr. Maria Waqas
B.E. (Computer Systems) NED UET;
M.Engg. (Computer Systems) NED UET;
Ph.D. (Computational Biology) NED UET

6. Dr. Urooj Ainuddin
B.E.(Computer Systems) NED UET ;
M.S.(Computer Systems) SSUET;
Ph.D. (Computational Biology) NED UET
7. Dr. Zareen Sadiq
B.E.(Computer & Information Systems) NED UET;
M.Engg.(Computer Systems) NED UET;
Ph.D. (Computer Architecture) NED UET
8. Engr. Gul Munir Ujjan (*On Study Leave*)
B.E. (Computer Systems) NED UET;
M.Engg. (Computer Systems) NED UET;
Ph.D. (In Progress) Malaysia
9. Engr. Sumayya Zafar
B.E. (Computer & Information Systems) NED UET;
M. Engg. (Computer Systems) NED UET;
Ph.D. (In Progress) NED UET
10. Dr. Saad Qasim Khan
B.E. (Computer & Information Systems) NED UET;
M. Engg. (Computer Systems);
Ph.D. (Artificial Intelligence / Neuromorphic Hardware) NED UET
11. Dr. Hameeza Ahmed
B.E. (Computer & Information Systems);
M. Engg. (Computer Systems);
Ph.D. (Big Data Computing) NED UET
12. Dr. Syed Aqeel Haider
B.S. (Electronic) SSUET; M. Engg. (Computer Systems) NED UET;
Ph.D. (Biometrics Identification) NED UET

Lecturers

1. Engr. Kashif Asrar
B.E. (Computer & Information Systems);
M. Engg. (Computer Systems);
Ph.D. (In Progress) NED UET
2. Engr. Fauzia Yasir
B.E. (Computer & Information Systems);
M. Engg. (Computer Systems);
Ph.D. (In Progress) NED UET
3. Engr. Muhammad Ali Akhter
B.E. (Computer & Information Systems);
M. Engg. (Computer Systems)
4. Engr. Mehwish Raza
B.E. (Computer & Information Systems);
M. Engg. (Computer Systems); Ph.D. (In Progress) NED UET
5. Engr. Fakhra Aftab
B.E. (Computer & Information Systems);
M. Engg. (Computer Systems); Ph.D. (In Progress) NED UET
6. Engr. Syeda Ramish Fatima
B.E. (Computer & Information Systems);
M. Engg. (Computer Systems); Ph.D. (In Progress) NED UET





7. Engr. Umar Iftikhar
*B.E. (Electrical) Hamdard University;
M.S. (Computer Engg.) SSUET; Ph.D. (In Progress) NED UET*
8. Engr. Ibshar Ishrat
*B.E. (Computer & Information Systems);
M. Engg. (Computer Systems); Ph.D. (In Progress) NED UET*
9. Engr. Muhammad Nabeel Ibrahim
*B.E. (Electrical) Hamdard University;
M.S. (Information Security) NED UET;
Ph.D. (In Progress) NED UET*

10. Engr. Mahnoor Malik
*B.E. (Computer & Information Systems);
M. Engg. (Computer Systems)*
11. Engr. Tahreem Khan
*B.E. (Computer & Information Systems);
M. Engg. (Computer Systems)*

IT Manager

Ms. Nida Fouq
*BS (Computer Science & Information Technology) NED UET;
MS (Data Engineering and Information Management) NED UET*

2.2.12 Department of Electronic Engineering

Chairperson (Acting)

Prof. Dr. Muhammad Imran Aslam

Professor

Prof. Dr. Ghous Bakhsh
*B.E. (Electronic), MUET; M.Engg. (Electronic), NED UET;
Ph.D. (Electrical), USA*

Associate Professors

1. Dr. Sadia Muniza Faraz
*B.E. (Electrical) NED UET; M.Engg. (Electronic) NED UET;
Ph.D. (Electronic) NED UET*
2. Dr. Hashim Raza Khan
*B.E. (Electrical) NED UET; M.Sc. (Communication), Germany;
Ph.D. (Electronic) NED UET*

Assistant Professors

1. Dr. Syed Riaz-un-Nabi Jafri
*B.E. (Industrial Electronic), IIEE, NED;
M.Engg. (Electronic) NED UET; Ph.D. (Robotics), Italy*
2. Engr. Shahzad Siddiqi
B.E. (Electrical) NED UET; M.Engg. (Telecommunications) NED UET
3. Engr. Safi Ahmed Zakai
*B.E. (Electrical) NED UET; MBA (Marketing), IBA Karachi;
M. Engg. (Telecommunications) NED UET;
M.Phil. (Management), UoK*
4. Dr. Sana Arshad
*B.E. (Electronic) NED UET; M.Engg. (Electronic) NED UET;
Ph.D. (Electronic) NED UET*
5. Dr. Yawar Rehman
*B.E. (Electronic), MUET;
M.Engg. (Telecommunication), Hamdard University;
Ph.D. (Electronics & Communication), South Korea*
6. Dr. Amna Shabbir
*B.E. (Telecommunication) NED UET;
M.Engg. (Telecommunication) NED UET;
Ph.D. (Telecommunication) NED UET*
7. Dr. Saleha Bano
*B.E. (Electronic) NED UET; M.Engg. (Electronic) NED UET;
Ph.D. (Electronic) NED UET*

8. Dr. Muhammad Faizan Shirazi
*B.E. (Electronic) NED UET; M.S (Electronic), Republic of Korea;
Ph.D. (Electronic), Republic of Korea*
9. Dr. Tariq Rehman
*B.E. (Industrial Electronic), IIEE, NED UET;
M.Engg. (Electronic) NED UET; Ph.D. (Electronic), Malaysia*
10. Dr. Saba Javed
*B.E. (Industrial Electronics) IIEE, NED UET; MS (Electronics),
PAF-KIET; Ph.D. (Electronics), PAF-KIET*
11. Dr. Danish Mahmood Khan
*B.E. (Telecommunications) NED UET;
M.Engg. (Telecommunications) NED UET;
Ph.D. (Electrical & Electronic) Malaysia*

Lecturers

1. Engr. Madiha Mazhar
B.E. (Electronic) NED UET; M.Engg. (Electronic) NED UET
2. Engr. Muhammad Nasir
*B.E. (Electronic) NED UET; M.Sc. (Computer Science) NED UET;
Ph.D. (In Progress) NED UET*
3. Engr. Ayesha Akhtar
B.E. (Electronic) NED UET; M.Engg. (Electronic) NED UET
4. Engr. Maheen Mazhar
*B.E. (Electronic) NED UET; M.Engg. (Electronic) NED UET;
Ph.D. (In Progress) NED UET*
5. Engr. Saba Fakhar
*B.E. (Electronic) NED UET;
M.Engg. (Telecommunications) NED UET*
6. Engr. Hira Imtiyaz
B.E. (Electronic) NED UET; M.Engg. (Electronic) NED UET
7. Engr. Hafsa Amanullah
B.E. (Electronic) NED UET; M.Engg. (Electronic) NED UET
8. Engr. Arham Iqbal
B.E. (Electronic) NED UET; M.Engg. (Industrial Electronic)
9. Engr. Sidra Rahman
B.E. (Electronic) NED UET; M.Engg. (Electronic) NED UET
10. Engr. Mariyum Jamshid
B.E. (Electronic) NED UET; M.Engg. (Electronic) NED UET





11. Engr. Sheikh Zahid Ali Siddiqui (*On Study Leave*)
B.E. (Electronic) NED UET;
M.Engg. (Embedded Computing), South Korea;
Ph.D. (In progress) South Korea

Senior Manager, Instrumentation Centre

Dr. Hashim Raza Khan
B.E. (Electrical) NED UET;
M.Sc. (Communication), Germany;
Ph.D. (Electronic) NED UET

Manager Instrumentation Centre

Engr. Syed Hasnain Ali Naqvi
B.E. (Industrial Electronics), IIEE-NED UET;
MS (Instrumentation & Control) UK

Deputy Manager, Instrumentation Centre

Engr. Asim Ahmed
B.E. (Electronics) NED UET;
M.Engg. (Industrial Electronics) NED UET

Instrumentation Engineer, Instrumentation Centre

Engr. Adnan Rasheed
B.E. (Electronics), UIT;
M.Engg. (Industrial Electronics) NED UET

IT Manager

Mr. Muhammad Yasir Khan
BCIT (University of Sindh)

2.2.13 Department of Telecommunications Engineering

Chairperson

Prof. Dr. Muhammad Imran Aslam

Professor

Prof. Dr. Muhammad Imran Aslam
B.E. (Electrical) NED UET; M.Engg. (Electrical) NED UET;
Ph.D. (Electrical), USA

Assistant Professors

1. Dr. Amir Zeb
B.E. (Electrical) NED UET;
M.Engg. (Telecommunications) NED UET;
Ph.D. (Wireless Communication/Cognitive Radio) NED UET
2. Dr. Uzma Afsheen
B.E. (Electrical) NED UET;
M.Engg. (Telecommunications) NED UET;
Ph.D. (Electrical and Electronics), New Zealand
3. Dr. Sunila Akbar (*On Ex-Pakistan Leave*)
B.E. (Electrical) NED UET;
M.Engg. (Telecommunications) NED UET;
Ph.D. (Telecommunications), UK
4. Engr. Saba Ahmed
B.E. (Electrical) NED UET;
M. Engg. (Telecommunications) NED UET ;
Ph.D. (In Progress) NED UET
5. Dr. Tahir Malik
B.E. (Electrical) NUST;
M.Sc. (Telecommunications & Info. System), UK;
Ph.D. (Electrical & Electronic), New Zealand
6. Engr. Nida Nasir (*On Study Leave*)
B.E. (Electronic) NED UET;
M.Engg. (Telecommunications) NED UET;
Ph.D. (In Progress) Malaysia

7. Dr. Rizwan Aslam Butt
B.E. (Electronic) NED UET; MCIT, NED UET;
M.Engg. (Telecommunications) NED UET;
Ph.D. (Communication Engineering), Malaysia
8. Dr. Fahim Ul Haq
B.E. (Telecommunications) NED UET
M.Engg. (Telecommunications) NED UET;
Ph.D. (Electrical), Sweden
9. Dr. Sundus Ali
B.S. (Telecommunications), FAST-NU;
M.Engg. (Telecommunications), Hamdard University;
Ph.D. (Telecommunications) NED UET
10. Dr. Hira Mariam
B.E. (Telecommunications) NED UET;
M.Engg. (Telecommunications) NED UET;
Ph.D. (Electronics) NED UET
11. Dr. Komal Masroor
B.E. (Telecommunications) NED UET;
M.Engg. (Telecommunications) NED UET;
Ph.D. (Telecommunications) Malaysia

Lecturers

1. Engr. Ghulam Fiza
B.E. (Telecommunications) MUET; M.Engg. (Telecommunications) MUET
2. Engr. Syed Muneeb Ahmed
B.E. (Telecommunications) SSUET;
M.Engg. (Telecommunications) NED UET
3. Engr. Fatima Muhammad Saleem
B.E. (Telecommunications) NED UET;
M.Sc. (Electrical Engineering & IT), Germany

IT Manager

Engr. Waqas Raza
B.E. (Computer Systems), SSUET
MBA (HRM) FUUAST;





2.2.14 Department of Biomedical Engineering

(The Department is located in NED-LEJ Campus)

Chairman

Dr. Eraj Humayun Mirza

Associate Professor

1. Dr. Eraj Humayun Mirza
B.S. (Biomedical), SSUET; M.S. (Biomedical), UK;
Ph.D. (Biomedical), Malaysia
2. Dr. Muhammad Abul Hasan
B.E. (Electronics) NED UET;
M.Engg. (Industrial Electronics) NED UET;
Ph.D. (EEG-Neurofeedback & Signal Processing), UK

Assistant Professors

1. Ms. Rehana Kousar
B.Sc. (Biology) SALU;
M.Sc. (Biological Science) Quaid-e-Azam University;
M.Phil. (Development Biology) Quaid-e-Azam University
2. Dr. Syed M. Wasim Raza
M.B.B.S., JSMU; Ph.D. (Biomechanics, Orthopedic & Motion Analysis), UK
3. Dr. Bilal Ahmed Usmani (On Extra Ordinary Leave)
M.Sc. (Mathematics), UoK; M.Phil (Mathematics), UoK;
Ph.D. (Mathematical Epidemiology), UK
4. Engr. Riaz Uddin (On Study Leave)
B.S. (Biomedical) SSUET;
M.E. (Bio Engineering) New Zealand;
M.S. (Biomedical) SSUET; MBA, IBA Karachi;
Ph.D. (In progress), New Zealand

5. Dr. Syed Faraz Jawed
B.E. (Biomedical) NED UET; M.E. (Biomedical) NED UET;
Ph.D. (Biomedical Materials), Australia
6. Dr. Muhammad Danish Mujib
B.S. (Biomedical) SSUET; M.E. (Industrial Control and Automation) UIT, Hamdard University;
Ph.D. (Biomedical), NED UET
7. Dr. Ahmad Zahid Rao
B.E. (Biomedical) NED UET; M.S. (Biomedical) USA;
Ph.D. (Biomedical), NED UET
8. Dr. Saima Kashif
B.E. (Biomedical) NED UET; M.E. (Biomedical) NED UET;
Ph.D. (Biomedical) UK
9. Dr. Madeeha Sadia
B.S. (Biomedical), SSUET; M.Engg. (Electronics) NEDUET;
MBA, CBM; Ph.D. (Biomedical), Malaysia

Lecturers

1. Engr. Tajwar Sultana
B.E. (Computer & Information Systems) NED UET;
M.Engg. (Computer Systems) NED UET;
Ph.D. (In progress) NED UET
2. Engr. Fizza Zia Shaikh
B.E. (Biomedical) MUET; M.E. (Biomedical) NED UET
3. Engr. Amna Amin Sethi
B.E. (Biomedical) NED UET; M.E. (Biomedical) NED UET;
Ph.D. (In Progress) NED UET

2.2.15 Department of Computer Science and Information Technology

(Administering Bachelor of Science in Computer Science)

Chairperson

Prof. Dr. Muhammad Mubashir Khan

Professors

1. Prof. Dr. Muhammad Mubashir Khan
B.Sc. (Hons) Telecommunications, UoS;
M.Sc. (Hons) Telecommunications, UoS;
MCIT (by Research) NED UET;
Ph.D. (Computer Science), UK
2. Prof. Dr. Najeed Ahmed Khan
M.Sc. (Applied Mathematics) UoK;
M.Sc. (Computer Science) NED UET;
Ph.D. (Computer Vision), UK
3. Prof. Dr. Shariq Mahmood Khan
BCIT, NED UET; MCIT, NED UET;
Ph.D. (Computer Engineering), UK

Associate Professor

Dr. Saman Hina
BS (Computer Science), SSUET; MCIT, NED UET;
Ph.D. (Computing), UK

Assistant Professors

1. Ms. Saba Izhar Haque
B.Sc. (Hons), UK; M. Phil. (Computation), UK
2. Dr. Murk Marvi
B.E. (Telecommunications), MUET;
M.E. (Communication Systems and Networks) MUET;
Ph.D. (Computer Systems Engineering) NED UET
3. Dr. Waseemullah
BCIT, NED UET; MCIT, NED UET;
Ph.D. (Computer Vision) NED UET
4. Dr. Muhammad Umer Farooq
BCIT, NED UET; MCIT, NED UET;
Ph.D. (Computer Vision) NED UET





5. Dr. Maria Andleeb Siddiqui
*B.E. (Telecommunications) NED UET;
M.E. (Computer Networks and Performance Evaluation)
NED UET; Ph.D. (Computer Science) NED UET*
6. Dr. Usman Amjad
*BS (Computer Science) UoK; MS (Computer Science), UoK;
Ph.D. (Computer Science), UoK*
7. Dr. Abdul Karim Kazi
*BCS, UoK; MCS, UoK; MCIT, NED UET;
Ph.D. (Computer Science) NED UET*
8. Dr. Muhammad Kamran
*BS (Computer Science) UoK; MCIT, NED UET;
Ph.D. (Computer Science) NED UET*

5. Engr. Huma Tabassum
*B.E. (Computer & Information Systems Engineering) NED UET;
MS (Computer Science), BU; Ph.D. (In Progress) NED UET*
6. Engr. Saadia Arshad
*BS (Software Engineering) JUW;
MS (Information Security) NED UET*
7. Mr. Rohail Qamar
*BS (Computer Science) Hamdard University (UIT);
MS (Data Engineering & Information Management) NED UET;
Ph.D. (In Progress) NED UET*
8. Engr. Samia Masood Awan
*B.E. (Computer & Information Systems Engineering) NED UET;
M.E. (Computer Networks & Performance Evaluation), NED UET
Ph.D. (In Progress) NED UET*
9. Mr. Muhammad Mubashir Khan
*BS (Computer Science) Hamdard University (UIT);
MS (Computer Science & Information Technology) NED UET*

Lecturers

1. Mr. Furqan Hussain Essani
BS (Computer Science), MAJU; MS (Computer Science), MAJU
2. Engr. Farah Sadiq
*B.E. (Computer & Information Systems Engineering) NED UET;
MS (Data Engineering & Information Management) NED UET*
3. Engr. Nudrat Naved
*B.E. (Software Engineering) NED UET;
MS (Computer Science & Information Technology) NED UET*
4. Engr. Muhammad Ahmed Zaki Shaikh
*B.E. (Telecommunications) MUET;
M.E. (Computer & Information Engineering) MUET*

IT Managers

1. Mr. Zahid Nazir Ahmed
B.Sc., UoK; MCS, UoK
2. Ms. Noor Afshan Vasty
BS (Computer Information Systems), USA
3. Ms. Nazish Irfan
MS (Information Technology), PIMSAT

2.2.16 Department of Software Engineering

Chairperson

Prof. Dr. Shehnida Zardari

Professor

Prof. Dr. Shehnida Zardari
*B.E. (Software), MUET;
M.E. (Communication Systems & Networks), MUET;
Ph.D. (Computer Science), UK*

Associate Professors

1. Dr. Sh. Muhammad Wahabuddin Usmani
*B.E. (Electronics), DCET; M.Sc. (Computer Science) NED UET;
Ph.D. (Computer Science) NED UET*
2. Dr. Raheela Asif
*B.E. (Computer & Information Systems Engineering) NED UET;
MS (Computer Science & Information Technology) NED UET;
MS (Software Engineering), SSUET;
Ph.D. (Computer Science) NED UET*

2. Dr. Mustafa Latif
*B.E. (Computer & Information Systems Engineering) NED UET;
M. Engg. (Computer Systems) NED UET;
Ph.D. (Computer Systems Engineering) NED UET*
3. Dr. Muhammad Faraz Hyder
*B.E. (Computer & Information Systems Engineering) NED UET;
M. Engg. (Computer Systems) NED UET;
M. Engg. (Telecommunications) NED UET;
Ph.D. (Computer Systems Engineering) NED UET*
4. Engr. Shumaila Ashfaq
*B.E. (Computer & Information Systems Engineering) NED UET;
M. Engg. (Computer Architecture & System Design) NED UET*
5. Engr. Asma Khan
*B.E. (Computer Systems), MUET;
M.E. (Information Technology), MUET*
6. Engr. Simra Najm
*B.E. (Computer & Information Systems Engineering) NED UET;
M. Engg. (Computer Systems) NED UET*

Assistant Professors

1. Dr. Kashif Mehboob Khan
*BS (Computer Engineering), SSUET; MS (CSIT) NED UET;
Ph.D. (Computer Science) NED UET*

Lecturers

1. Engr. Sidra Masood
*B.E. (Software Engineering), MUET;
M.E. (Communication Systems and Network), MUET;
Ph.D. (In Progress) NED UET*





2. Engr. Syed Muhammad Sheraz
B.E. (Computer & Information Systems Engineering) NED UET;
M. Engg. (Computer Systems) NED UET;
Ph.D. (In Progress) NED UET
3. Engr. Zainab Fatima
B.E. (Computer & Information Systems Engineering) NED UET;
M.E. (Computer Architecture & Systems Design) NED UET;
Ph.D. (In Progress) NED UET
4. Engr. Sheerina Khattak
B.E. (Computer Information & Systems Engineering) NED UET;
M.E. (Network & Information Security) NED UET
5. Engr. Sana Fatima
B.E. (Computer & Information Systems Engineering) NED UET;
MS (Computer Science & Information Technology) NED UET
6. Engr. Shiza Riaz Memon
B.E. (Software Engineering) NED UET;
MS (Computer Science & Information Technology) NED UET;
Ph.D. (In Progress) NED UET
7. Engr. Naveera Sami
B.E. (Computer & Information Systems Engineering) NED UET;
M.Engg. (Computer Systems) NED UET

2.2.17 Department of Chemical Engineering

Chairperson

Prof. Dr. Saud Hashmi

Professor

Prof. Dr. Saud Hashmi
B.E. (Chemical), DUET;
M.Engg. (Environmental), NED UET;
Ph.D. (Chemical), South Korea

Associate Professors

1. Dr. Faizan Raza
B.E. (Chemical), UoK;
Ph.D. (Fusion Chemical), South Korea
2. Dr. Syed Ali Ammar Taqvi
B.E. (Chemical), NED UET;
M.Engg. (Chemical), NED UET;
Ph.D. (Chemical), Malaysia
3. Dr. Fahim Uddin
B.E. (Chemical), NED UET;
M.Engg. (Chemical), NED UET;
Ph.D. (Chemical), Malaysia

Assistant Professors

1. Engr. Rizwan Ahmed Qamar
B.Sc. (Chemical), BZU, Multan;
M.Engg. (Chemical), NED UET
2. Dr. Sajid Muhsbat
B.E. (Chemical), MUET; M.Engg. (Chemical), NED UET;
Ph.D. (Chemical) NED UET
3. Dr. Saad Nadeem
B.E. (Chemical), DUET; M.Engg. (Chemical), NED UET;
Ph.D. (Chemical), Malaysia

Lecturers

1. Engr. Ahmed Ullah
B.E. (Chemical), NED UET; M.Engg. (Chemical) NED UET
2. Engr. Abdu Sami (On Study Leave)
B.E. (Chemical), DUET;
M.Engg. (Chemical) NED UET;
Ph.D. (In Progress) Malaysia

3. Engr. Ibtihaj Khurram Faridi (On Study Leave)
B.E. (Chemical) MUET;
M.S. (Chemical and Energy Engineering), Germany;
Ph.D. (In Progress) Germany
4. Engr. Zaha Naseem
B.E. (Chemical), NED UET;
M.Engg. (Chemical) NED UET
5. Engr. Muhammad Shahid (On Study Leave)
B.E. (Chemical), UoK;
M.Engg. (Chemical), NED UET;
Ph.D. (In Progress) Malaysia
6. Engr. Shahzad Shaikh
B.E. (Chemical), MUET;
M.Engg. (Environmental), NED UET;
Ph.D. (In Progress) NED UET
7. Engr. Tuba Siraj Ansari
B.E. (Chemical), NED UET;
M.Engg. (Chemical), NED UET;
Ph.D. (In Progress) NED UET
8. Engr. Hafsa Bano (On Study Leave)
B.E. (Chemical) NED UET; M.Engg. (Chemical) NED UET;
Ph.D. (In Progress) Malaysia
9. Engr. Muhammad Umair Shaikh
B.E. (Chemical) MUET; M.E. (Chemical) MUET
10. Engr. Syed Muhammad Tariq
B.E. (Chemical) MUET;
M.Engg. (Chemical) NED UET
11. Engr. Muhammad Hasnain
B.E. (Chemical), NED UET; M.Engg. (Chemical),
NED UET; Ph.D. (In Progress) NED UET
12. Engr. Talha Hassan Khan
B.E. (Chemical), NED UET;
M.Engg. (Chemical), NED UET

IT Manager

Engr. Nadia Ajaz
B.E. (Computer Systems) NED UET; MCIT, NED UET



2.2.18 Department of Polymer & Petrochemical Engineering

Chairperson (Acting)

Prof. Dr. Saud Hashmi

Associate Professor

Dr. Asim Mushtaq
B.E. (Chemical), NED UET; M.Engg. (Environmental) NED UET;
Ph.D. (Chemical), Malaysia

Assistant Professors

1. Engr. Raza Muhammad Khan
B.E. (Polymer), Hamdard University;
M.Sc. (Advanced Materials Engineering), UK;
Ph.D. (In Progress) NED UET
2. Dr. Rafiq Ahmed
B.Sc. (Applied Chemistry); M.Sc. (Applied Chemistry);
Ph.D. (Polymer Technology), Netherlands
3. Engr. Nadia Khan
B.E.(Chemical) NED UET; M.Engg. (Chemical) NED UET

Lecturers

1. Engr. Asra Nafees
B.E. (Polymer & Petrochemical) NED UET;
M.Engg. (Polymer) NED UET

2. Engr. Nabiha Syed
B.E. (Polymer & Petrochemical) NED UET;
M.Engg. (Polymer) NED UET
3. Engr. Amina Israr
B.E. (Polymer & Petrochemical) NED UET;
MEM (Industrial Management) NED UET
4. Engr. Ahmed Saleem
B.E. (Polymer & Petrochemical) NED UET;
M.S. (Chemical and Energy Engineering), Germany

Lab Engineers

1. Engr. Zia-ul-Hassan
B.E.(Mechanical) NED UET; M.Engg. (Polymer) NED UET
2. Engr. Ali Raza
B.E. (Textile), MUET; M.Engg. (Polymer) NED UET
3. Engr. Muhammad Umair Hassan
B.S.(Electronics Engineering) SSUET;
M.Sc. (Electrical Engineering), Norway

IT Manager

Engr. Nuzhat Afreen
B.S. (Computer Engineering) SSUET; MCIT, NED UET

2.2.19 Department of Materials Engineering

Chairperson

Prof. Dr. Fayaz Hussain

Professors

1. Prof. Dr. Fayaz Hussain
B.E. (Metallurgical), MUET; M. Engg. (Materials) NED UET;
Ph. D. (Functional Materials and Devices), UK
2. Prof. Dr. Muhammad Sohail Hanif
B.E. (Industrial & Manufacturing) NED UET;
M. Engg. (Materials) NED UET;
Ph.D. (Advanced Laser), South Korea.

Assistant Professors

1. Dr. Muhammad Sajid Ali Asghar
B.E. (Metallurgy and Materials), DUET;
M. Engg. (Materials) NED UET;
Ph. D. (Nano Materials), UK
2. Engr. Abdul Rauf Jamali
B.E. (Metallurgy and Materials) NED UET ;
M.Sc. (Materials Science and Engineering), Germany;
Ph. D. (In Progress) NEDUET
3. Engr. Muhammad Faizan (On Study Leave)
B.E. (Materials) NED UET; M. Engg. (Materials) NED UET;
Ph. D. (In progress), South Korea

4. Dr. Faaz Ahmed Butt
B.E. (Metallurgical) NED UET; M. Engg. (Materials) NED UET;
Ph. D. (Materials Science and Engineering), Turkey
5. Engr. Sajida Shaikh
B.E. (Materials) NED UET; M. Engg. (Materials) NED UET;
Ph. D. (In Progress) NED UET

Lecturers

1. Engr. Danish Majeed
B.E. (Metallurgy and Materials) MUET;
M. Engg. (Materials) NED UET
2. Engr. Muhammad Wasiaq Ali Khan
B.E. (Materials) NED UET; M. Engg. (Materials) NEDUET;
Ph.D. (In Progress) NEDUET
3. Engr. Mudassir Farooq
B.E. (Metallurgical) NED UET;
M.S. (Materials Science & Engineering), Saudi Arabia
4. Engr. Muhammad Umair Jamal
B.E. (Metallurgical) NED UET; MEM (Industrial Management) NED UET; M. Engg. (Materials) NEDUET;
Ph.D. (In Progress) NEDUET





2.2. 20 Department of Metallurgical Engineering

Chairperson

Prof. Dr. Ali Dad Chandio

Professors

1. Prof. Dr. Ali Dad Chandio
*B.E. (Metallurgical & Materials) MUET;
M.Engg. (Materials) NED UET;
Ph.D. (Engineering Materials/Surface Engineering), UK*
2. Prof. Dr. Shahid Hussain Abro
*B.E. (Metallurgy & Materials) MUET;
M. Engg. (Materials) NED UET;
Ph.D. (Nano and Functional Materials), South Korea*

Associate Professor

Dr. Nafis-Ul-Haque (*Ex-Pakistan Leave*)
*B.E. (Metallurgy & Materials) MUET;
M.Engg. (Materials) NED UET; Ph.D. (Metallurgy), UK*

Assistant Professors

1. Dr. Aqeel Ahmed Shah
*B.E. (Metallurgy & Materials) MUET;
M.S. (Nanotechnology), South Korea;
Ph.D. (Nano Materials) NED UET*
2. Dr. Muhammad Ali Siddiqui
*B.E. (Metallurgy & Materials) MUET;
M.Engg. (Materials) NED UET;
Ph.D. (Materials Science and Engineering), China*
3. Dr.-Ing. Laraib Sarfraz Khanzada
*B.E. (Metallurgy & Materials) MUET;
M.Engg. (Materials) NED UET;
Ph.D. (Materials), Germany*
4. Dr. Iftikhar Ahmed Channa
*B.E (Metallurgy & Materials) MUET;
M.Engg. (Materials) NED UET;
Ph.D. (Renewable Energy/Organic Photovoltaic), Germany*

5. Dr. Muhammad Samiuddin
*B.E. (Materials) NED UET; M.Engg. (Materials) NED UET;
Ph.D. (Materials) China*
6. Dr. Waseen Khan
*B.E. (Metallurgical) NED UET; M.Engg. (Materials) NED UET;
Ph.D. (Materials) NED UET*
7. Dr. Muhammad Rizwan
*B.E. (Materials) NED UET; M.Engg. (Materials) NED UET;
Ph.D. (Bio-ceramic Composite), Malaysia*
8. Dr. Shafaq Asrar
*B.E. (Materials) NED UET; M.Engg. (Materials) NED UET;
Ph.D. (Metallurgy and Materials) NED UET*
9. Dr. Ambreen Azmat
*B.E. (Materials) NED UET; M.Engg. (Materials) NED UET;
Ph.D. (Materials) NED UET*
10. Dr. Zubia Anwer
*B.E. (Metallurgical) NED UET; M.Engg. (Materials) NED UET;
Ph.D. (Materials) NED UET*

Lecturers

1. Engr. Jahanzeb Bhatti
*B.E. (Metallurgy & Materials) MUET;
M.E. (Materials Engineering and Technology), Malaysia;
Ph.D. (In Progress) NED UET*
2. Engr. Hammad Ur Rehman (*On Study Leave*)
*B.E. (Metallurgical) NED UET;
MEM (Industrial Management) NED UET;
Ph.D. (In Progress), Europe*

IT Manager

Dr. Muhammad Imran
*MCS (FUUAST); MCIT, NED UET;
Ph.D. (Computer Science) NED UET*

2.2. 21 Department of Food Engineering

Chairperson

Prof. Dr. Zahoor ul Hussain Awan

Professors

1. Prof. Dr. Zahoorul Hussain Awan
*B.E. (Mechanical) NED UET; M.Engg. (Chemical) NED UET;
Ph. D. (Chemical), South Korea*
2. Prof. Dr. Tariq Iqbal
*B.Sc. (Physics and Mathematics) UoP;
B.Sc. (Agricultural Engineering Honours) UET, Peshawar;
M.A. (Economics) UoP; M.Engg. Sc. (Food Process
Engineering), Ireland; Ph.D. (Food Process Engineering), Ireland*

Assistant Professors

1. Dr. Muhammad Badaruddin (*Ex-Pakistan Leave*)
*B.Sc. (Food Science and Technology), UoK;
M.Sc. (Food Science and Technology), UoK;
Ph.D. (Bioscience), UK*
2. Engr. Alia
B.E. (Chemical) NED UET; M.Engg. (Chemical) NED UET
3. Engr. Muhammad Hassam Siddiqui
B.E. (Chemical), DUET; M.Engg. (Chemical) NED UET
4. Dr. Jawaad Ahmed Ansari
*B.Sc. (Food Science and Technology), UoK;
M.Sc. (Food Science and Technology), UoK;
M.Phil. (Food Science and Technology), UoK;
Ph.D. (Food Process Engineering), New Zealand*





Lecturers

1. Engr. Salman Ali (*On Study Leave*)
B.E. (Chemical), DUET; M.S. (Chemical & Energy Engineering), Germany; Ph.D. (In Progress) Germany
2. Engr. Iqra Siddique Alvi
B.E. (Food) NED UET;
MEM (Industrial Management), NED UET;
Ph.D. (In Progress) NED UET

3. Engr. Farah Shamim
B.E. (Chemical) NED UET; M.Engg. (Chemical) NED UET;
Ph.D. (In Progress) NED UET
4. Engr. Aisha Jilani
B.E. (Mechanical) NUST; M.S. (Thermal Power/Thermo Fluid) NUST; Ph.D. (In Progress) NED UET

2.2.22 Department of Architecture and Planning

*The Department is located in City Campus
(Also Administering Bachelor of Science in Development Studies)*

Chairperson

Prof. Dr. Anila Naeem

Co-Chairperson

Dr. Saeed Ud Din Ahmed

Professors

1. Prof. Dr. Noman Ahmed
B. Arch., DCET/NED UET; M.C.P., Turkey;
Ph.D. (Civil and Building Engineering), UK; MPCATP
2. Prof. Dr. Anila Naeem
B. Arch., DCET/NED UET; M.S. (Restoration and Preservation of Historical Monuments), Turkey;
Ph.D. (Urban Design - Historic Preservation), UK; MPCATP

Associate Professors

1. Ms. Fariha Amjad Ubaid
B.Arch., NCA, Lahore; MCPUD, Turkey; MPCATP
2. Dr. Saeed Ud Din Ahmed
B.Arch., NED UET; MURP, NED UET;
Ph.D. (City and Regional Planning), UK; MPCATP

Assistant Professors

1. Ms. Fahmida Bano Shaikh
B.Arch., MUET; MURP, NED UET;
Ph.D. (In Progress) NED UET; MPCATP
2. Dr. Ravindar Kumar Ravi
B.Arch., DCET/NED UET; MUD, DCET/NED UET;
Ph.D. (Urban Morphology) NED UET; MPCATP
3. Mr. Salman Manzoor Hasan
B.Arch., NCA, Lahore; M.Arch. NED UET; MPCATP
4. Dr. Masooma Mohib Shakir
B.Arch. IVSAA, Karachi; M.Arch., Belgium;
Ph.D. (Urban Heritage), Germany; MPCATP
5. Ms. Saadia Bano
B.Arch. NED UET; MEM (Construction Management) NED UET; MPCATP
6. Dr. Rabela Junejo
B.Arch., MUET; M.S. (History of Architecture), Turkey;
Ph.D. (History of Architecture Program), Turkey; MPCATP
7. Ms. Farida Abdul Ghaffar
B.Arch., DCET/NED UET; MURP, NED UET; MPCATP

Lecturers

1. Ms. Afsheen Akif (*On Study Leave*)
B.Arch. MUET; MURP, NED UET;
Ph.D. (In Progress), USA; MPCATP
2. Ms. Rabiya Asim
B.Arch., DUET; MPCATP
3. Ms. Rahat Arsalan
B.Arch., NED UET; MURP, NED UET; MPCATP
4. Ms. Safia Asif
B.Arch., NED UET; M.Arch., NED UET; MPCATP
5. Ms. Madiha Salam (*On Study Leave*)
B.Arch., NED UET; M. Arch. NED UET;
Ph.D. (In Progress), UET, Lahore; MPCATP
6. Ms. Tania Ali Soomro (*On Study Leave*)
B.Arch., MUET;
MS (Conservation of Monuments & Sites), Belgium;
Ph.D. (In Progress), Italy; MPCATP
7. Ms. Fariha Tehseen
B.Arch., UET Lahore; M. Arch., UK; MPCATP
8. Ms. Sara Hafeez
B.Arch., MUET; M. Arch., MUET; MPCATP
9. Ms. Madiha Arif
Lecturer (Fine Arts)
B.FA, NCA, Lahore
10. Engr. Mansoor Raza
Lecturer (Development Studies)
B.E. (Electrical) NED UET; M.Sc. (Environmental Studies), UoK;
Ph.D. (In Progress) NED UET
11. Ms. Anum Mufti
Lecturer (Development Studies)
BBA, SZABIST; MBA, SZABIST

IT Manager

Mr. Ahmed Anis Khan
BCIT, NED UET; MCIT, NED UET





2.2.23 Department of Economics and Management Sciences

(Administering Bachelor of Science in Economics & Finance and Bachelor of Science in Management Sciences)

Chairperson (Acting)

Prof. Dr. Noman Ahmed

Assistant Professors

1. Dr. Mirza Faizan Ahmed
*MBA (Finance), UoK; MAS (Applied Economics), UoK;
Ph.D. (Applied Economics), UoK*
2. Dr. Hina Mubeen
*M.S. (Management Sciences) SZABIST;
M.B.A. (Human Resource Management), BU
Ph.D. (Management Sciences) SZABIST*
3. Dr. Muhammad Shahid Iqbal
*PGD (Statistics) UoK; MA (Economics) UoK;
MA (International Relations) UoK;
M.S. / M.Phil. (Applied Economics), UoK; Ph.D. (Economics), UoK*
4. Dr. Farhan Ahmed
*B.Com., SALU; CAT, ACCA-UK;
M.A. (Economics), SALU; MBA (Finance) SZABIST;
Ph.D. (Management Sciences), SZABIST*
5. Dr. Faheem Akhter
*M.B.A. (Management), UoS; M.A. (International Relations) UoK;
L.L.B., S.M. Law College, UoK; Ph.D. (Public Administration/
Management and Administrative Sciences) UoK*
6. Dr. Manzoor Hussain Memon
*M.Sc. (MIBM), UoK; M. Phil (Economics) - AERC, UoK;
Ph.D. (Applied Economics) - AERC, UoK*
7. Dr. Shabbir Ahmed
*M.Sc. (Economics), UoK
M. Phil (Applied Economics) - AERC, UoK;
Ph.D. (Applied Economics) - AERC, UoK;*

Lecturers

1. Ms. Maham Fatima
*BS (Economics) UoK;
MS (Economics & Finance) NED UET;
Ph.D. (In Progress), UoK*
2. Ms. Mariam Zehra
*BBA (Finance) IoBM; MBA (Finance) IoBM;
M. Phil. (In Progress), UoK*
3. Mr. Ahmar Aleem
*ACCA, UK; CIMA, UK; MA (Economics), UoK;
M. Phil (Business Administration), Iqra University
Ph.D. (In Progress), UoK*
4. Engr. Adnan Khalil
*B.E. (Industrial & Manufacturing), NED UET;
MBA, KSBL; Ph.D. (In Progress), IoBM*
5. Syeda Zuimah Wasim
*BBA (Marketing), IBA Karachi;
MBA (Marketing), IBA Karachi;
Ph.D. (In Progress), UoK*
6. Mr. Talha Ahmed Siddiqui
*MBA (Finance), UoK;
M. Phil (Applied Economics), UoK;
Ph.D. (In Progress), UoK*
7. Ms. Jaweriya Naz
*BBA (Finance), UoK;
MS (Economics & Finance), NED UET;
Ph.D. (In Progress), UoK*
8. Engr. Talha Qadeer
*B.E. (Electronics), MUET;
MS (Management Sciences), Canada*
9. Mr. Muhammad Naeem
*B.Sc. Hons. (Business Administration), QAU;
MBA (Finance), SZABIST*

2.2.24 Department of Physics

Chairperson

Dr. Irfan Ahmed

Associate Professor

Dr. Irfan Ahmed
*B.E. (Electrical) NED UET; M. Engg. (Electrical) NED UET;
Ph.D. (Electrical), USA*

Assistant Professors

1. Dr. Iqbal Tariq
*B.Sc. (Hons), UoK; M.Sc. (Physics), UoK;
Ph.D. (Medical Physics), Malaysia*
2. Dr. Saba Javaid
*B.Sc. (Hons), UoK; M.Sc. (Physics), UoK;
MS (Physics), UoK; Ph.D. (Physics), UoK*
3. Dr. Roohi Zafar
*B.Sc. (Hons), UoK; M.Sc. (Physics), UoK;
MS (Physics), UoK; Ph.D. (Physics), UoK*
4. Mr. Junaid Kareem Khan
*M.Sc. (Applied Physics), UoK;
M.Phil. (Renewable Energy), UoK;
Ph.D. (In Progress), UoK*
5. Dr. Hira Ashfaq Lodhi
*M.Sc. (Applied Physics), UoK;
MS (Applied Mathematics) NED UET;
Ph.D. (Applied Mathematics), NED UET*
6. Dr. Uzair Majeed
*M.Sc. (Physics), FUUAST;
Ph.D. (Material Physics), Malaysia*





7. Dr. Syed Talib Abbas Jafri
*B.E. (Electronics), KIET;
M.E. (Telecommunications) NED UET;
Ph.D. (Telecommunications) NED UET*

Lecturers

1. Mr. Ghulam Mustafa
*M.Sc. (Physics), UoK; M. Phil. (Spectroscopy), UoK;
Ph.D. (In Progress), UoK*

2. Mr. Fayzan Ahmed
BS (Physics) UoK; M.Phil. (Physics), UoK
3. Ms. Ayesha Khurshid
M.Sc., (Applied Physics), UoK; MS (Physics) NED UET
4. Hafiz Muhammad Usama Ayub
*B.Sc. (Hons), UoK; M.Sc. (Applied Physics), UoK;
MS (Physics) NED UET; Ph.D. (In Progress), UoK*

2.2.25 Department of Chemistry

(Administering Bachelor of Science in Industrial Chemistry)

Chairperson

Dr. Nuzhat Arshad

Associate Professor

1. Dr. Nuzhat Arshad
*M.Sc. (Organic Chemistry), UoK;
Ph.D. (MW-Assisted synthesis), Austria*
2. Dr. Kashif Ahmed
*M.Sc. (Physical Chemistry), UoS;
Ph.D. (Chemistry), FUUA*
3. Dr. Amtul Qayoom
M.Sc. (Chemistry), UoS; Ph.D. (Chemistry), UoK
4. Dr. Saeeda Nadir Ali
M.Sc. (Chemistry), UoK; Ph.D. (Chemistry), UoK

Assistant Professors

1. Syed Ghazanfar Hussain
M.Sc. (Chemistry), UoK; M.Phil./Ph.D. (In Progress), UoK
2. Mr. Muhammad Ansar Khan
M.Sc. (Applied Chemistry), UoK; M.E. (Chemical), USA

3. Dr. Shazia Perveen
*M.Sc. (Analytical Chemistry), UoK;
Ph.D. (Electrochemistry), UoK*
4. Dr. Rafia Usman Khan
*M.Sc. (Applied Chemistry), UoK; M.S. (Chemistry), USA;
Ph.D. (Nano Material Chemistry), Japan*
5. Dr. Anjum Ayub
M.Sc. (Organic Chemistry), FUUA; Ph.D. (Chemistry), UoK

Lecturers

1. Ms. Hira Sultan
*B.S. (Chemistry), UoK; M.S. (Chemistry), JUW;
Ph.D. (In Progress) NED UET*
2. Ms. Farhat Ikram (On Study Leave)
*M.Sc. (Chemistry), UoK; M.S. (Chemistry), NED UET;
Ph.D. (In Progress), Australia*
3. Ms. Atia Shamim
M.Sc. (Analytical Chemistry), UoK; M.Phil. (Chemistry), UoK

2.2.26 Department of Mathematics

(Administering Bachelor of Science in Computational Finance)

Chairman

Prof. Dr. Mirza Mahmood Baig

Professors

Prof. Dr. Mirza Mahmood Baig
*B.Sc. (Mathematics, Physics, Statistics), UoK;
M.Sc. (Mathematics), UoK; MS (Computer Science) NED UET;
Ph.D. (Computer Science) NED UET*

Assistant Professors

1. Mr. Javed Ahmed Siddiqui
B.Sc. (Hons), UoK; M.Sc. (Applied Mathematics), UoK
2. Ms. Razia Shaheen
*B.Sc. (Hons), UoK; M.Sc. (Mathematics) UoK;
M.Phil. (Mathematics), UoK*
3. Dr. Muhammad Jamil
*B.Sc. (Hons) Mathematics, Physics, Statistics, UoK;
M.Sc. (Applied Mathematics), UoK;
M.Phil. (Engineering Mathematics), UoK;
Ph.D. (Applied Mathematics) GCU, Lahore*

4. Dr. Fareed Ahmed
*B.Sc. (Hons), UoK; M.Sc. (Mathematics), UoK;
MS (Computer Science) NED UET;
Ph.D. (Computer Science) NED UET*
5. Dr. Azam Khan (On Leave)
*M.Sc. (Applied Mathematics), UoK;
Ph.D. (Theoretical & Applied Mathematical Physics), Sweden*
6. Ms. Shumaila Usman
B.Sc. (Hons) UoK; M.Sc. (Statistics), UoK; MCIT, NED UET
7. Dr. Kamran Zakaria
*B.Sc. (Hons) UoK; M.Sc. (Mathematics), UoK;
Ph.D. (Applied Mathematics) FUUA*
8. Mr. Zakir Hussain Khan
*B.Sc. (Hons) UoK; M.Sc. (Statistics), UoK;
MS (Applied Mathematics) NED UET*
9. Dr. Fahim Raees
*B.Sc. (Hons) UoK; M.Sc. (Applied Mathematics), UoK;
Ph.D. (Computational Fluid Dynamics), Netherlands*





10. Dr. Faqiha Sultan
*B.Sc. (Hons) UoK; M.Sc. (Mathematics), UoK;
Ph.D. (Applied Mathematics), UoK*
11. Mr. Sohail Ahmed
*B.Sc. (Hons) UoK; M.Sc. (Statistics) UoK;
MS (Applied Mathematics) NED UET*
12. Syed Tauqeer Ahmed Hashmi
*B.Sc. (Hons) UoK; M.Sc. (Statistics), UoK;
MS (Applied Mathematics) NED UET;
Ph.D. (In Progress) NED UET*
13. Dr. Muhammad Yousuf Tufail
*B.Sc. (Hons) (Mathematics), UoK;
M.Sc. (Mathematics) UoK;
Ph.D. (Mathematics), New Zealand*
14. Dr. Ubaida Fatima
*B.E. (Bio-Medical) NED UET;
MS (Applied Mathematics) NED UET;
Ph.D. (Mathematics) NED UET*
15. Dr. Saima Gul
*B.Sc. (Hons) UoK; M.Sc. (Mathematics), UoK;
Ph.D. (Mathematics), New Zealand*
16. Dr. Muhammad Samad Khan
*B.E. (Electrical) NED UET;
MS (Applied Mathematics) NED UET;
Ph.D. (Mathematics) NED UET*
4. Ms. Komal Batool
*B.S. (Computational Finance) NED UET;
MS (Data Engineering) NED UET;
Ph.D. (In Progress) NED UET*
5. Ms. Saba Naz
*M.Sc. (Mathematics) UoK;
MS (Applied Mathematics) NED UET*
6. Ms. Onaiza Ali
*B.S. (Applied Mathematics) UoK;
MS (Applied Mathematics) NED UET*
7. Ms. Sidra Raees
*M.Sc. (Mathematics), UoK;
MS (Applied Mathematics) NED UET*
8. Mr. Haris Ur Rehman Horani
*M.Sc. (Applied Mathematics), UoK;
M.B.A. (Finance) MAJU;
MS (Applied Mathematics) NED UET;
Ph.D. (In Progress) NED UET*
9. Ms. Yumna Sajid
*M.Sc. (Statistics) UoK;
MS (Applied Mathematics) NED UET;
Ph.D. (In Progress) UoK*
10. Engr. Muhammad Zeeshan
*B.E. (Metallurgical) NED UET;
MS (Applied Mathematics) NED UET*

Lecturers

1. Mr. Yasir Hussain Khan
*B.S. (Mathematics) FUUAST;
MS (Applied Mathematics) NED UET;
Ph.D. (In Progress) NED UET*
2. Mr. Muhammad Amin
MBA (Finance), USA; Ph.D. (In Progress) NED UET
3. Mr. Sami Ullah Qureshi
*B.S. (Economics), UoK; M.Phil. (Applied Economics), UoK;
Ph.D. (In Progress), UoK*
11. Engr. Syed Ashad Ali
*B.E. (Civil) NED UET;
MS (Applied Mathematics) NED UET*
12. Engr. Aiman Naveed
*B.E. (Electrical) NED UET;
MS (Applied Mathematics) NED UET*

2.2.27 Department of English Linguistics & Allied Studies

(Administering Bachelor of Science in English Linguistics)

Chairperson

Prof. Dr. Sajida Zaki

Professor

Prof. Dr. Sajida Zaki
*M. A. (Linguistics), UoK;
Ph.D. (Applied Linguistics), HU*

Associate Professors

1. Dr. Muhammad Fareed
*M. A. English (Literature & Linguistics) NUML, Karachi;
M.Phil. Education (English Language Teaching), IU;
Ph.D. Education (English Language Teaching), IU*
2. Dr. Najeeb Us Saqlain Durrani
*M. A. (English), UoK;
M.Phil. (English for Specific Purpose Language), IU;
Ph.D. (English for Specific Purpose Language), IU*

Assistant Professors

1. Dr. Rahila Huma Anwar
*M. A. English (Linguistics), UoK; M. Phil (Linguistics) HU;
Ph.D. (Applied Linguistics) NED UET*
2. Ms. Almas Ashraf
*M. A. English (Literature), JUW;
M. A. English (Linguistics) JUW;
M.S. (Applied Linguistics) NED UET*
3. Ms. Hina Manzoor
*M.A. English (Linguistics) UoK; M.S. (Applied Linguistics)
UoK; Ph.D. (In Progress), UoS*
4. Dr. Muhammad Asim Khan
*M. A. English (Lit. & Linguistics) UoK;
M.S. (Applied Linguistics) UoK;
Ph.D. (Applied Linguistics) NED UET*



Lecturers

1. Ms. Uzma Riyaz
*M.A. English (Linguistics), UoK;
M.A. English (Literature), UoK;
M. Phil. (In Progress), UoK*
2. Ms. Mahwish Arif
*M. A. English (Literature), UoK;
M.S. (Applied Linguistics) NED UET
Ph.D. (In progress), NED UET*
3. Ms. Asmara Shafqat
*M. A. English (Linguistics), UoK;
M.S. (Applied Linguistics) NED UET;
Ph.D. (In Progress) UoS*

4. Ms. Sidra Awan
*B. Ed., JUW; B.S. (English Linguistics), JUW;
M.S. (Applied Linguistics) NED UET
Ph.D. (In progress), NED UET*
5. Ms. Maheen Tufail Dahraj
*B.S. English (Linguistics), JUW;
M.S. (Applied Linguistics) NED UET;
Ph.D. (In progress), UoS*
6. Hafiza Urooj Yahya
*M. A. English (Linguistics), UoK;
MS (Applied Linguistics), NED UET;
Ph.D. (In Progress) NED UET*

2.2.28 Department of Essential Studies

Chairperson

Prof. Dr. Abdul Hai Madni

Professors

1. Prof. Dr. Abdul Hai Madni
*M. A. (Islamic Studies), Saudi Arabia;
M. A. (Islamic Studies & Arabic), Wifaqul Madaris;
Ph.D. (Islamic Studies), Islamia University Bhawalpur*
2. Prof. Dr. Farooq Hassan
*M. A. (Islamic Studies), UoK;
L.L.B., Govt. S. M. Law College, Karachi;
Ph.D. (Islamic Studies), UoK*

Associate Professor

1. Dr. Imrana Begum
*B. Ed., HU; M. A. (General History), UoK;
M.I.T., Western International University;
Ph.D. (European Studies), UoK*

Assistant Professors

1. Mr. Muhammad Ghaus Ali
M. A. (Pakistan Studies), UoK
2. Dr. Muhammad Bilal Usmani
*M. A. (Islamic Studies), UoK;
Ph.D. (Islamic Studies), FUUAST*
3. Dr. Rahat Rizvi
*M.A. (Economics) UoK; M.A. (Political Sciences) UoK;
M.A. (Islamic Studies) UoK;
M.Phil. Education (Islamic Studies), Iqra University;
Ph.D. Education (Islamic Studies), IU*
4. Dr. Faraz-ul-Haq
*B.A., Islamic University of Madinah Munawwarah, Saudi Arabia;
M.A. Islamic University of Madinah Munawwarah, Saudi Arabia;
Ph.D., Islamic University of Madinah Munawwarah, Saudi Arabia*





2.2.29 Thar Institute of Engineering, Sciences and Technology (TIEST)

Principal

Prof. Dr. Nasir Uddin Shaikh
B.E. (Mechanical) NED UET;
M.Sc. (Mechanical) NED UET;
Ph.D. (Thermo fluids), Canada

2.2.29(i) Department of Computer Science & Information Technology

(Administering Bachelor of Science in Computer Science)

Chairperson (Acting)

Prof. Dr. Syed Abbas Ali

Professor

Prof. Dr. Syed Abbas Ali
B.E. (Computer Systems) NED UET; M. Engg. (Electrical) NED UET;
Ph.D. (Automatic Speech Recognition & Machine Learning) NED UET

Assistant Professor

Dr. Dodo Khan
B.E. (Software Engineering) MUET;
MS (Software Engineering) MAJU;
Ph.D. (Information Technology) Universiti Teknologi PETRONAS, Malaysia

Lecturers

1. Engr. Govarishankar Lalwani
B.E. (Computer Sys.) MUET; MS (Computer Engg.) SSUET
2. Engr. Vanesh Kumar
B.E. (Computer Engineering); COMSATS, Lahore;
M. Engg. (Computer Systems) NEDUET

3. Engr. Neetesh Kumar
B.E. (Computer System), MUET;
M. Engg. (Computer Systems) NED UET
4. Mr. Muhammad Abbas
B.S. (Computer Science), QUEST;
M. Engg. (Computer Technology), China
5. Engr. Abdul Hafeez
B.E. (Software) NED UET; M.Engg. (Software), MUET;
6. Engr. Anees Ahmed
B.E. (Computer Systems) QUEST;
M.E. (Computer Systems), China
7. Engr. Nida Munawar
B.E. (Software) MUET; M.S. (Computer Sc.), FAST
M.E. (Computer Systems), China
8. Mr. Talha Memon
B.S. (English) UoS; M.S. (English Linguistics), MUET

IT Manager

Engr. Aneel Kumar
B.E. (Software Engineering), MUET

2.2.29(ii) Department of Civil Engineering

Chairperson

Prof. Dr. Sadaqat Ullah Khan

Professors

1. Prof. Dr. Tehmina Ayub
B.E. (Civil) NED UET; M.Engg. (Structures) NED UET; Ph.D. (Civil), Universiti Teknologi PETRONAS, Malaysia
2. Prof. Dr. Sadaqat Ullah Khan
B.E. (Civil) NED UET; M.Engg. (Structures) NED UET;
Ph.D. (Civil), Universiti Teknologi PETRONAS, Malaysia

Associate Professors

1. Dr. Muhammad Aslam Bhutto
B.E. (Civil) QUEST; MEM (Civil) NED UET;
Ph.D. (Civil) Heriot-Watt University, UK
2. Dr. Abdul Salam Buller
B.E. (Civil) QUEST; MEM (Construction) QUEST;
Ph.D. (Structural) Sungkyunkwan University, South Korea

Lecturers

1. Engr. Farhan Ahmed
B.E. (Civil) MUET; M. Engg. (Structures) MUET
2. Engr. Mohsin Ali
B.E. (Civil) MUET; M.E. (Civil) MUET
Ph.D. (In Progress) NED UET
3. Engr. Aqsa Murad
B.E. (Civil) MUET; M.E. (Structures) MUET
4. Engr. Syed Muhammad Yasir Ashrafi
B.E. (Civil) NED UET; MEM (Construction) NED UET
5. Engr. Farhan Ahmed Shaikh
B.E. (Civil) MUET; M.E. (Structural) MUET;
Ph.D. (In Progress) MUET
6. Engr. Waqas Raza
B.E. (Civil) QUEST; MEM (Construction) NED UET

Lab Engineer

Engr. Shahzaib Ahmed Shaikh
B.E. (Civil), MUET;
MEM (Construction Management), NED UET





CHAPTER 3

Course of Studies





Students admitted in this University are required to study all approved courses of the respective discipline. They are also needed to complete a course titled "Community Service (EA-200)" during the Four Years Studies.

Students with an HSC/equivalent with Computer Science Group and who are admitted into any Engineering Programme at this university must take a non-credit Essentials of Chemistry (CY-100) course during the first semester of their studies.

Subject to changes and modifications by the University the courses of studies for Bachelors Degree programmes shall be as follows:

3.1 Bachelor of Engineering Programmes

3.1.1 Civil Engineering

FIRST YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
CE-107	Engineering Drawing-I	1	2	3	CE-109	Engineering Surveying-I	2	1	3
CE-102	Statics and Dynamics	3	1	4	CE-110	Chemistry for Civil Engineers	1	1	2
CE-108	Engineering Materials	2	1	3	CE-111	Introduction to Computing for Civil Engineers	1	2	3
EE-123	Basic Electrical Engineering	2	0	2	ME-110	Basic Mechanical Engineering	2	0	2
MT-114	Calculus	3	0	3	EA-111	Functional English	2	0	2
ES-106	Pakistan Studies OR	1	0	1	MT-221	Linear Algebra & Ordinary Differential Equations	3	0	3
ES-127	Pakistan Studies (for Foreigners)								

SECOND YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
CE-201	Engineering Surveying-II	3	1	4	CE-222	Engineering Drawing-II	1	2	3
CE-205	Mechanics of Solids-I	3	1	4	CE-221	Structural Analysis-I	3	0	3
CE-220	Geology for Engineers	2	1	3	CE-219	Fluid Mechanics-I	3	1	4
ES-205	Islamic Studies OR	2	0	2	MT-331	Probability & Statistics	3	0	3
ES-209	Ethical Behaviour (for Non-Muslims)				EA-219	Professional Ethics	2	0	2
EA-218	Business Communication	2	1	3	CF-303	Applied Economics for Engineers	3	0	3
AR-309	Architecture and Town Planning	3	0	3	EA-200	Community Service	-	-	NC

THIRD YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
CE-320	Reinforced Concrete Design-I	3	0	3	CE-305	Soil Mechanics-I	3	1	4
CE-302	Transportation Engineering-I	3	1	4	CE-232	Quantity & Cost Estimation	3	0	3
CE-321	Construction Engineering	3	0	3	CE-314	Structural Analysis-II	3	0	3
CE-319	Fluid Mechanics-II	3	1	4	CE-322	Mechanics of Solids-II	3	0	3
MT-443	Numerical Analysis	3	0	3	CE-424	Essentials in Construction Project Management	3	0	3
					EA/ES-###	Foreign Language-I			NC



FINAL YEAR

Fall Semester

Course Code	Course Title	Credit Hours		
		Th	Pr	Total
CE-403	Soil Mechanics-II	3	1	4
CE-418	Hydraulic and Water Resources Engineering-I	3	1	4
CE-420	Reinforced Concrete Design-II	3	0	3
EN-301	Environmental Engineering-I	2	1	3
CE-409	Civil Engineering Project*	0	3	3
EA/ES-####	Foreign Language-II	-	-	NC
##-####	Social Sciences Elective	2	0	2

Spring Semester

Course Code	Course Title	Credit Hours		
		Th	Pr	Total
CE-421	Design of Steel Structures	3	0	3
CE-432	Transportation Engineering-II	2	0	2
##-####	Civil Engineering Elective	3/2/1	0/1/2	3
##-####	Management Sciences Elective	3	0	3
EN-401	Environmental Engineering-II	2	1	3
CE-409	Civil Engineering Project	0	3	3

Civil Engineering Elective (to be chosen from the following)

Management Sciences Elective (to be chosen from the following)

CE-419	Applied Hydraulics	3	0	3
CE-422	Structural Design & Drawing	3	0	3
CE-423	Masonry Structures	3	0	3
CE-426	Building Information Modeling	1	2	3
CE-429	Geosynthetics and their Applications	3	0	3
CE-431	Geoinformatics Applications	2	1	3
CE-433	Coastal and Harbour Engineering	3	0	3
CE-438	Hydraulics and Water Resource Engineering-II	3	0	3
CN-424	Environmental Issues in Construction	3	0	3
CN-430	Disaster and Reconstruction Management	3	0	3
CE-440	Commute and Mass Transit	3	0	3

CN-423	Management and marketing of Construction Services	3	0	3
CN-432	Leadership and Human Skills in Management Modern Aspects of Construction Project	3	0	3
CE-425	Management	3	0	3
CE-434	Procurement Management	3	0	3
CE-435	Construction Contract Management			

Social Sciences Elective (to be chosen from the following)

CE-427	Introduction to Entrepreneurship & Opportunity Assessment	2	0	2
CE-439	Engineer and Society	2	0	2
MG-228	Sociology and Development	2	0	2
CE-441	Professional Ethics in Construction Industry	2	0	2

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.2 Civil Engineering (Specialisation in Construction)

FIRST YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
CE-107	Engineering Drawing-I	1 2 3	CE-109	Engineering Surveying-I	2 1 3
CE-102	Statics and Dynamics	3 1 4	CE-110	Chemistry for Civil Engineers	1 1 2
EE-123	Basic Electrical Engineering	2 0 2	CE-111	Introduction to Computing for Civil Engineers	1 2 3
CE-108	Engineering Materials	2 1 3	ME-110	Basic Mechanical Engineering	2 0 2
MT-114	Calculus	3 0 3	EA-111	Functional English	2 0 2
ES-106	Pakistan Studies OR	1 0 1	MT-221	Linear Algebra & Ordinary Differential Equations	3 0 3
ES-127	Pakistan Studies (for foreigners)				

SECOND YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
CE-201	Engineering Surveying-II	3 1 4	CE-222	Engineering Drawing-II	1 2 3
CE-205	Mechanics of Solids-I	3 1 4	CE-221	Structural Analysis-I	3 0 3
CE-220	Geology for Engineers	2 1 3	CE-219	Fluid Mechanics-I	3 1 4
ES-205	Islamic Studies OR	2 0 2	MT-331	Probability & Statistics	3 0 3
ES-209	Ethical Behaviour (for Non-Muslims)		EA-219	Professional Ethics	2 0 2
EA-218	Business Communication	2 1 3	CN-223	Fundamentals of Applied Economics for Engineers	3 0 3
AR-309	Architecture and Town Planning	3 0 3	EA-200	Community Service	NC

THIRD YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
CE-320	Reinforced Concrete Design-I	3 0 3	CE-305	Soil Mechanics-I	3 1 4
CE-321	Construction Engineering	3 0 3	CE-323	Quantity & Cost Estimation	3 0 3
CN-323	Construction Contracts	3 0 3	CN-331	Construction Jobsite Engineering and Management	3 0 3
CE-302	Transportation Engineering-I	3 1 4	CN-333	Construction Economic Analysis	2 0 2
CN-336	Accounting and Financial Management	3 0 3	CE-424	Essentials in Construction Project Management	3 0 3
			CN-433	Introduction to Entrepreneurship and Opportunity Assessment	2 0 2
			EA/ES-###	Foreign Language-I	

FINAL YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
CN-428	Sustainable Construction	3 0 3	##-###	Civil Engineering Elective	
CN-435	Systems in Building Construction	3 0 3	CN-429	Building Information Modeling	1 2 3
CE-418	Hydraulics and Water Resources Engineering-I	3 1 4	CN-427	Quality and Safety Aspects in Construction Engineering	2 0 2
CN-416	Legal and Regulatory Environment in the Construction Industry	3 0 3	CN-434	Temporary Structures in Construction	3 0 3
EN-301	Environmental Engineering-I	2 1 3	CN-436	Heavy Construction Equipment and Operations	3 0 3
CE-409	Civil Engineering Project*	0 3 3	CE-409	Civil Engineering Project	0 3 3
EA/ES-###	Foreign Language-II				

Civil Engineering Elective (to be chosen from the following)

CE-419	Applied Hydraulics	3 0 3	CE-433	Coastal and Harbour Engineering	3 0 3
CE-422	Structural Design & Drawing	3 0 3	CE-438	Hydraulics and Water Resource Engineering-II	3 0 3
CE-423	Masonry Structures	3 0 3	CN-424	Environmental Issues in Construction	3 0 3
CE-429	Geosynthetics and their Applications	3 0 3	CN-430	Disaster and Reconstruction Management	3 0 3
CE-431	Geoinformatics Applications	2 1 3	MG-228	Sociology and Development	2 0 2

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.3 Civil Engineering (Specialisation in Urban)

FIRST YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Th	Hours Pr	Total	Course Code	Course Title	Credit Th	Hours Pr	Total
UE-151	Engineering Drawing-I	1	2	3	UE-153	Engineering Surveying-I	2	1	3
EE-123	Basic Electrical Engineering	2	0	2	UE-154	Chemistry for Civil Engineers	1	1	2
UE-102	Statics and Dynamics	3	1	4	UE-155	Introduction to Computing for Civil Engineering	1	2	3
MT-114	Calculus	3	0	3					
UE-152	Engineering Materials	2	1	3	ME-110	Basic Mechanical Engineering	2	0	2
ES-106	Pakistan Studies OR	1	0	1	MT-221	Linear Algebra & Ordinary Differential Equations	3	0	3
ES-107	Pakistan Studies (for Foreigners)				EA-111	Functional English	2	0	2

SECOND YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Th	Hours Pr	Total	Course Code	Course Title	Credit Th	Hours Pr	Total
UE-201	Engineering Surveying-II	3	1	4	UE-253	Engineering Drawing-II	1	2	3
UE-251	Mechanics of Solids-I	3	1	4	UE-254	Fluid Mechanics-I	3	1	4
UE-252	Geology for Engineers	2	1	3	UE-255	Structural Analysis-I	3	0	3
EA-218	Business Communication	2	1	3	EA-219	Professional Ethics	2	0	2
ES-205	Islamic Studies OR	2	0	2	MT-331	Probability & Statistics	3	0	3
ES-209	Ethical Behaviour (for Non-muslims)				CF-303	Applied Economics for Engineers	3	0	3
					EA-200	Community Service			NC

THIRD YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Th	Hours Pr	Credit Hours Total	Course Code	Course Title	Credit Th	Hours Pr	Credit Hours Total
UE-351	Reinforced Concrete Design-I	3	0	3	AR-309	Architecture and Town Planning	3	0	3
UE-352	Construction Engineering	3	0	3	UE-305	Soil Mechanics-I	3	1	4
UE-353	Quantity & Cost Estimations	3	0	3	UE-356	Traffic Engineering and Management	3	0	3
UE-455	Municipal Engineering and Urban Management	2	0	2	UE-218	Law and Regulatory Control Studies	2	0	2
MT-443	Numerical Analysis	3	0	3	UE-355	Essential in Construction Project Management	3	0	3
UE-361	Planning & Design of Transportation System	3	1	4	UE-453	Reinforced Concrete Design-II	3	0	3
					EA/ES-###	Foreign Language-I			NC

FINAL YEAR

Fall Semester				Spring Semester			
Course Code	Course Title	Credit Hours		Course Code	Course Title	Credit Hours	
		Th	Pr			Th	Pr
UE-403	Soil Mechanics-II	3	1	4	###-###	Engineering Elective	3/1/2
UE-452	Urban Mass Transportation	2	0	2	UE-435	Financial Resource Management	0/2/1
UE-451	Hydraulic Engineering and Water Resources Engineering-I	3	1	4	UE-460	Geoinformatics	2
UE-359	Structural Analysis-II	2	0	2	UE-454	Design of Steel Structures	1
EN-301	Environmental Engineering-I	2	1	3	EN-401	Environmental Engineering-II	0
UE-415	Urban Engineering Project*	0	3	3	UE-360	Mechanics of Solids-II	2
EA/ES-###	Foreign Language-II			NC	UE-415	Urban Engineering Project	3

Inter-Disciplinary Elective (to be chosen from the following)

CE-419	Applied Hydraulics	3	0	3	CN-430	Disaster and Reconstruction Management	3	0	3
CE-423	Masonry Structures	3	0	3	UE-422	Traffic Impact Studies	2	1	3
CE-426	Building Information Modeling	1	2	3	UE-423	Highway and Airfield Pavement Design	2	1	3
CE-429	Geosynthetics and their applications	3	0	3	EN-403	Environmental Impact Assessment	2	0	2
CE-438	Hydraulics and Water Resource Engineering-II	3	0	3	UE-421	Modern Aspects of Construction Project Management	2	1	3
CN-424	Environmental Issues in Construction	3	0	3	UE-436	Urban Sociology	3	0	3

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.4 Petroleum Engineering

FIRST YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
PE-103	Fundamentals of Petroleum Engineering	2 0 2	PE-104	Applied Petroleum Geology	2 1 3
EE-124	Basic Electricity and Electronics	2 1 3	ME-101	Engineering Mechanics	3 1 4
ME-111	Engineering Drawing	2 1 3	PE-105	Computer Programming & Application	1 2 3
CY-109	Applied Chemistry	3 1 4	PH-127	Applied Physics for Engineers	2 1 3
MT-114	Calculus	3 0 3	EA-111	Functional English	2 0 2
ES-106	Pakistan Studies OR	1 0 1	ES-205	Islamic Studies OR	2 0 2
ES-107	Pakistan Studies (for Foreigners)		ES-209	Ethical Behaviour (For Non Muslims)	

SECOND YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
MT-221	Linear Algebra & Ordinary Differential Equations	3 0 3	PE-211	Introduction to Data Sciences	2 1 3
EA-218	Business Communication	2 1 3	PE-212	Reservoir Fluid Properties	2 1 3
PE-208	Reservoir Petrophysics	2 1 3	PE-209	Fluid Mechanics	3 1 4
CE-212	Mechanics of Solids	3 1 4	PE-213	Drilling Engineering-I	2 1 3
PE-210	Thermodynamics – I	2 1 3	MT-331	Probability & Statistics	3 0 3
UE-270	Surveying and Geo informatics	1 1 2	##-###	Social Sciences Elective	2 0 2
			EA-200	Community Service	NC

THIRD YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
PE-314	Petroleum Production Economics	2 0 2	PE-318	Drilling Engineering-II	3 1 4
PE-315	Structural Geology & Geophysical Exploration	3 0 3	##-###	Elective-I	2 0 2
PE-316	Subsurface Production Engineering	3 0 3	PE-319	Reservoir Engineering – I	3 1 4
PE-317	Natural Gas Engineering	2 1 3	PE-320	Fundamentals of Well Logging	2 1 3
EL-305	Instrumentation & Control	3 1 4	MT-471	Applied Numerical Methods	2 1 3
EA-219	Professional Ethics	2 0 2	EA/ES-###	Foreign Language-I	NC

FINAL YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
PE-415	Reservoir Simulation	3 1 4	PE-418	Oil and Gas Field Production Facilities	3 1 4
PE-416	Reservoir Engineering-II	2 1 3	PE-419	Water Flooding and Enhanced Oil Recovery	3 1 4
##-###	Elective-II	3 1 4	PE-421	Well Testing	3 1 4
PE-417	Project Planning & Management	3 0 3	PE-422	Petroleum Property Env. & Safety Management	3 0 3
PE-410	Petroleum Engineering Project*	0 3 3	PE-410	Petroleum Engineering Project	0 3 3
EA/ES-###	Foreign Language-II	NC			

Social Sciences Elective Courses (to be chosen from the following)

EA-229	Anthropology	2 0 2	MG-257	Organizational Behavior	2 0 2
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Elective-I Courses (to be chosen from the following)

PE-321	Principles of Corrosion Control	2 0 2	PE-323	Renewable Energy-I	2 0 2
PE-322	Introduction to Unconventional Oil, Gas & Energy Resources	2 0 2			

Elective-II Courses (to be chosen from the following)

PE-423	Petroleum Refinery Engineering	3 1 4	PE-424	Renewable Energy-II	3 1 4
CS-323	Artificial Intelligence	3 1 4			

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.5 Mechanical Engineering

FIRST YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
CY-111	Applied Chemistry	2 0 2	PH-112	Applied Physics	2 1 3
MT-114	Calculus	3 0 3	EA-111	Functional English	2 0 2
EE-124	Basic Electricity and Electronics	2 1 3	ME-112	Thermodynamics	3 0 3
ME-111	Engineering Drawing	2 1 3	ME-104	Workshop Practice	0 2 2
ES-105	Pakistan Studies OR	2 0 2	ME-115	Statics	3 0 3
ES-127	Pakistan Studies (for Foreigners)		ME-214	Computer Programming & Applications	2 1 3
ME-113	Computer Aided Drawing	0 1 1			
EA-200	Community Service	- - NC			

SECOND YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
MT-223	Ordinary Differential Equations & Fourier Series	3 0 3	MT-330	Applied Probability & Statistics	2 1 3
ME-221	Fluid Mechanics - I	3 0 3	ME-218	Solid Mechanics - I	3 0 3
ME-222	Dynamics	3 0 3	ME-209	Materials & Metallurgy	3 1 4
ME-223	Engineering Mechanics Lab	0 1 1	ES-205/	Islamic Studies OR	2 0 2
ME-224	Internal Combustion Engines	3 0 3	ES-209	Ethical Behaviour	
ME-220	Manufacturing Processes - I	3 1 4	ME-219	Mechanics of Machine	3 0 3
			EA-208	Business Communication & Ethics	3 0 3

THIRD YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
ME-317	Manufacturing Processes - II	3 1 4	MT-332	Advanced Calculus & Linear Algebra	3 0 3
ME-321	Power Plant Engineering	3 0 3	EL-305	Instrumentation and Control	3 1 4
ME-322	IC Engine and Power Plant Lab	0 1 1	ME-323	Machine Design	3 0 3
ME-302	Solid Mechanics - II	3 1 4	ME-318	Heat & Mass Transfer	3 0 3
ME-316	Fluid Mechanics-II	3 1 4	ME-319	Refrigeration & Air Conditioning	3 0 3
##-###	Social Science (Elective)	2 0 2	ME-320	RAC and Heat Transfer Lab	0 1 1
			EA/ES-###	Foreign Language-I	- - NC

FINAL YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
MF-303	Applied Economics for Engineers	3 0 3	MG-481	Entrepreneurship	3 0 3
ME-436	Mechanical Vibrations	3 0 3	MT-441	Advanced Mathematical Techniques	3 0 3
ME-437	Machine Design and Vibration Lab	0 1 1	ME-417	Compressible Flow and Propulsion Systems	3 0 3
ME-419	Stress Analysis	3 0 3	ME-409	Mechanical Engineering Project	0 3 3
ME-409	Mechanical Engineering Project*	0 3 3	ME-435	Operations Management	3 0 3
##-###	Management Elective	2 0 2	##-###	Technical Elective 2	3/2 0/1 3
##-###	Technical Elective 1	3/2 0/1 3			
EA/ES-###	Foreign Language-II	- - NC			

Technical Elective (to be chosen from the following)

Management Elective (to be chosen from the following)

Course Code	Course Title	Credit Hours	Course Code	Course Title	Credit Hours
ME-421	Gas Turbines	3 0 3	ME-432	Health, Safety & Environment	2 0 2
ME-422	Nuclear Power	3 0 3	ME-433	Law for Engineers	2 0 2
ME-423	Computer Aided Design/Computer Aided Manufacturing	2 1 3	ME-434	Total Quality Management	2 0 2
ME-424	Clean Energy Technology	3 0 3	Social Sciences Elective (to be chosen from the following)		
ME-425	Finite Element Analysis	2 1 3			
ME-426	Plant Maintenance	3 0 3			
ME-429	Water Treatment & Desalination	3 0 3			
ME-439	Mechatronics	2 1 3			
ME-431	Tribology	3 0 3	EA-219	Professional Ethics	2 0 2
ME-438	AI and Internet of Things	2 1 3	MG-228	Sociology & Development	2 0 2
			EA-229	Anthropology	2 0 2
			MG-257	Organizational Behaviour	2 0 2

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.6 Industrial and Manufacturing Engineering

FIRST YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
MT-114	Calculus	3	0	3	PH-122	Applied Physics	3	1	4
ME-101	Engineering Mechanics	3	1	4	EA-111	Functional English	2	0	2
EE-122	Basic Electricity and Electronics	3	0	3	ME-111	Engineering Drawing	2	1	3
ME-104	WorkShop Practice	0	2	2	IM-101	Computer Applications in Engineering	2	1	3
ES-105	Pakistan Studies OR	2	0	2	IM-105	Thermofluids	3	1	4
ES-127	Pakistan Studies for Foreigners								

SECOND YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
IM-208	Materials Engineering	3	1	4	MT-225	Linear Algebra & Ordinary Differential Equations	3	0	3
IM-209	Mechanics of Materials	3	1	4					
IM-203	Manufacturing Processes	3	1	4	MF-303	Applied Economics for Engineers	3	0	3
MT-252	Introduction to Probability and Statistics	3	1	4	IM-211	Machine Design	3	1	4
ES-205	Islamic Studies OR	2	0	2	IM-212	Computer Aided Engineering Design	2	1	3
ES-209	Ethical Behaviour				IM-213	Metrology and Quality Control	3	1	4
					EA-200	Community Service	-	-	NC

THIRD YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EA-304	Business Communication & Ethics	3	0	3	IM-308	Operations Research	3	1	4
IM-303	Production Management	3	1	4	IM-307	Advanced Manufacturing Processes	3	1	4
MT-333	Advanced Calculus & Fourier Analysis	3	0	3	IM-408	Automation & Robotics	3	1	4
IM-312	Applied Thermo Fluids	3	1	4	IM-411	Methods Engineering	2	1	3
IM-310	Tool Design	3	1	4	IM-320	Modeling and Simulation	2	1	3
					EA/ES-###	Foreign Language-I	-	-	NC

FINAL YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
IM-405	Finite Element Analysis	3	1	3	MG-481	Entrepreneurship	3	0	3
IM-402	Computer Aided Manufacturing	3	1	4	IM-417	Health, Safety & Environment	2	1	3
MG-450	Principles of Supply Chain Management	3	0	3	MT-441	Advanced Mathematical Techniques	3	0	3
##-###	Elective Course	3	1	4	IM-413	Plant Engineering	3	1	4
IM-409	Manufacturing Engineering Project*	0	3	3	IM-409	Manufacturing Engineering Project	0	3	3
EA/ES-###	Foreign Language-II	-	-	NC					

Elective Courses (to be chosen from the following)

IM-416	Management Information System	IM-420	Basics of Additive Manufacturing
IM-418	Condition Monitoring	IM-421	Smart Manufacturing Systems
IM-419	Project Management	IM-422	Ergonomics in Workplace Design

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.7 Textile Engineering

FIRST YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
TE-113	Introduction to Textile Engineering	2	0	2	TE-111	Textile Chemistry	3	1	4
PH-122	Applied Physics	3	1	4	ME-112	Thermodynamics	3	0	3
ME-111	Engineering Drawing	2	1	3	ME-104	Workshop Practice	0	2	2
MT-114	Calculus	3	0	3	EE-122	Basic Electricity & Electronics	3	0	3
ES-105	Pakistan Studies OR	2	0	2	ME-101	Engineering Mechanics	3	1	4
ES-127	Pakistan Studies (for Foreigner)				TE-224	Polymer & Fibre Science	2	0	2
EA-114	Functional English	2	0	2					

SECOND YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
MM-205	Mechanics of Material	3	1	4	TE-211	Textile Yarn Manufacturing	3	1	4
TE-208	Material Science	2	1	3	TE-205	Pre-treatment of Textile	3	1	4
TE-203	Computer Programming & Application	2	1	3	TE-207	Machine Design	3	0	3
TE-206	Fluid Mechanics for Textiles	2	1	3	ME-311	Manufacturing Processes	3	1	4
MT-225	Linear Algebra & Ordinary Differential Equations	3	0	3	ES-205	Islamic Studies OR	2	0	2
					ES-209	Ethical Behaviour			
					EA-200	Community Service	-	-	NC

THIRD YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
TE-312	Textile Fabric Manufacturing Processes	3	1	4	TE-453	Garment Manufacturing	3	0	3
TE-307	Utilities for Textile Industry	3	1	4	TE-313	Textile Product Evaluation-I	3	1	4
MF-303	Applied Economics for Engineers	3	0	3	TE-319	Heat & Mass Transfer	2	1	3
TE-326	Textile Dyeing	3	1	4	TE-318	Textile & Environment	2	0	2
EA-304	Business Communication & Ethics	3	0	3	TE-305	Quality Control in Textiles	2	0	2
					MT-333	Advanced Calculus & Fourier Analysis	3	0	3
					EA/ES-####	Foreign Language-I	-	-	NC

FINAL YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
MG-482	Organizational Behavior	3	0	3	MG-481	Entrepreneurship	3	0	3
TE-462	Advanced Fabric Manufacturing Mechanism	3	1	4	TE-451	Automation & Control in Textiles	3	0	3
##-###	Elective	3	1	4	##-###	Elective	3	0	3
TE-408	Textile Engineering Design Project*	0	3	3	TE-408	Textile Engineering Design Project	0	3	3
TE-413	Textile Product Evaluation-II	3	1	4	TE-424	Textile Printing	3	1	4
EA/ES-###	Foreign Language-II	-	-	NC					

Inter-Disciplinary Elective (to be chosen from the following)

TE-461	Advanced Yarn Manufacturing Mechanism	3	1	4	TE-406	Textile Production Management	3	0
TE-452	Textile Finishing	3	1	4	TE-454	Textile Merchandising	3	0
TE-455	Advanced Garment Manufacturing	3	1	4				

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.8 Automotive Engineering

FIRST YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
PH-122	Applied Physics	3	1	4	ME-106	Statistics	2	1	3
AU-113	Introduction to Automotive Systems	2	0	2	ME-112	Thermodynamics	3	0	3
EA-104	Functional English	3	0	3	AU-112	Engineering Drawing and Computer Graphics	2	1	3
MT-114	Calculus	3	0	3					
ES-105	Pakistan Studies OR	2	0	2	EE-118	Basic Electricity and Electronics	3	1	4
ES-127	Pakistan Studies (for Foreigner)				CY-109	Applied Chemistry	3	1	4
ME-104	Workshop Practice	0	2	2					

SECOND YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
AU-241	Automotive Propulsion	3	1	4	IM-209	Mechanics of Materials	3	1	4
AU-212	Computer Programming and Applications	2	1	3	ME-311	Manufacturing Processes	3	1	4
AU-225	Fundamentals of Analogue and Digital Electronics	2	1	3	EE-376	Feedback Control Systems	3	0	3
MT-223	Ordinary Differential Equations & Fourier Series	3	0	3	MT-330	Applied Probability & Statistics	2	1	3
ME-222	Dynamics	3	0	3	ME-209	Materials & Metallurgy	3	1	4
ES-205	Islamic Studies OR	2	0	2	EA-200	Community Service	-	-	NC
ES-209	Ethical Behaviour (for Non-Muslims)								

THIRD YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
AU-313	Combustion, Emission and Pollution	3	0	3	AU-323	Vehicle Noise & Vibration	3	0	3
MT-332	Advanced Calculus & Linear Algebra	3	0	3	MF-303	Applied Economics for Engineers	3	0	3
EA-304	Business Communication & Ethics	3	0	3	AU-316	Vehicle Ride & Handling Lab	0	1	1
AU-317	Fluid Mechanics	3	0	3	AU-332	Automobile Instrumentation	2	1	3
AU-331	Automotive Embedded System	2	0	2	ME-315	Heat & Mass Transfer	3	1	4
AU-315	Design of Machine Elements	3	0	3	AU-333	Chasis System Design	2	0	2
AU-312	Modeling & Simulation Lab	0	1	1	##-###	Social Elective	2	0	2
					EA/ES-###	Foreign Language-I	-	-	NC

FINAL YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
AU-424	Design for Manufacturing	2	0	2	AU-438	Electric & Hybrid Electric Vehicles	2	0	2
##-###	Technical Elective-I	2	0	2	AU-430	Quality Management & Reliability	2	0	2
AU-425	Thermal Management for Automotive	2	0	2	AU-428	Automotive Health Safety & Environment	2	0	2
##-###	Management Elective	2	0	2	AU-499	Automotive Engineering Project	0	3	3
ME-435	Operation Management	3	0	3	##-###	Technical Elective-II	3/2	1/0	3
AU-314	Vehicle Dynamics	2	0	2	MG-481	Entrepreneurship	3	0	3
AU-499	Automotive Engineering Project*	0	3	3					
EA/ES-###	Foreign Language-II	-	-	NC					

Technical Electives-I (to be chosen from the following)

Technical Electives-II (to be chosen from the following)

AU-422	Automotive Transmission & Drives	2	0	2	AU-417	Automotive Paints and Coatings	3	0	3
AU-429	Vehicle Development	2	0	2	AU-442	FEM and FVM: Applications in Automotive Engineering	2	1	3
AU-435	Automotive Vendor Development	2	0	2	AU-434	Automotive Service & Dealership	3	0	3
AU-436	Automotive Structure Design	2	0	2	ME-438	AI and Internet of Things	2	1	3

Management Electives (to be chosen from the following)

Social Science Electives (to be chosen from the following)

IM-###	Project Management	2	0	2	MG-228	Sociology & Development	2	0	2
MG-483	Supply Chain Management	2	0	2	MG-257	Organizational Behavior	2	0	2
ME-434	Total Quality Management	2	0	2	EA-321	Logic & Critical Thinking	2	0	2

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.9 Electrical Engineering

FIRST YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EE-125	Basic Electrical Engineering	3	1	4	EE-156	Engineering Drawing	0	2	2
PH-122	Applied Physics	3	1	4	EE-126	Circuit Analysis	3	1	4
EA-111	Functional English	2	0	2	MT-227	Differential Equation	3	0	3
ME-116	Basic Mechanical Engineering	3	0	3	CE-109	Engineering Surveying-I	2	1	3
MT-114	Calculus	3	0	3	EE-163	Computer and Programming	3	1	4
CS-113	Introduction to Computing	1	1	2	ES-105	Pakistan Studies OR	2	0	2
					ES-127	Pakistan Studies (For Foreigners)			

SECOND YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EL-240	Electronic Devices & Circuits	3	1	4	EE-282	Electromagnetic Fields	3	0	3
EE-264	Data Structures and Algorithms	2	1	3	EE-223	Instrumentation and Measurement	2	1	3
MT-272	Linear Algebra & Geometry	3	0	3	EE-232	Signals and Systems	3	1	4
MT-226	Multi Variable Calculus	3	0	3	TC-201	Digital Logic Design	2	1	3
EA-214	Academic Writing	3	0	3	MT-331	Probability and Statistics	3	0	3
ES-205	Islamic Studies OR	2	0	2	EA-200	Community Service	-	-	NC
ES-209	Ethical Behaviour								

THIRD YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EE-346	Electrical Machines-I	2	1	3	EE-362	Power System Analysis	3	1	4
EE-395	Digital Signal Processing	2	1	3	EE-347	Electrical Machines-II	2	1	3
EE-359	Electrical Power Distribution and Utilization	3	1	4	EE-354	Embedded Systems	2	1	3
EE-313	Power Electronics	3	1	4	TC-306	Communication Systems	3	0	3
MT-442	Numerical Methods	3	0	3	EA-304	Business Communication & Ethics	3	0	3
					EA/ES-###	Foreign Language-I	-	-	NC

FINAL YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EE-457	Electrical Power System Protection	3	1	4	MG-482	Organizational Behavior	3	0	3
EF-304	Occupational Safety and Health	2	0	2	MG-481	Entrepreneurship	3	0	3
EE-352	Electrical Power Transmission	3	0	3	CS-439	Computer Communication Networks	2	0	2
EE-375	Feedback Control Systems	3	1	4	EE-414	Power Generation	3	0	3
EE-401	Electrical Engineering Project*	0	3	3	EF-305	Engineering Economics & Management	3	0	3
EA/ES-###	Foreign Language-II	-	-	NC	EE-401	Electrical Engineering Project	0	3	3

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.10 Computer Systems Engineering

FIRST YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
CS-114	Fundamentals of Computer Engineering	3	1	4	EL-103	Basic Electronics	3	1	4
EE-120	Basic Electrical Engineering	3	1	4	CS-116	Object Oriented Programming	3	1	4
EA-111	Functional English	2	0	2	PH-122	Applied Physics	3	1	4
CS-115	Computer Programming	3	1	4	CS-117	Discrete Structures	3	0	3
ES-106	Pakistan Studies OR	1	0	1	ES-205	Islamic Studies OR	2	0	2
ES-107	Pakistan Studies (For Foreigners)				ES-209	Ethical Behaviour			
MT-114	Calculus	3	0	3					

SECOND YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
CS-220	Digital Logic Design	3	1	4	CS-221	Computer Organization & Design	3	1	4
MT-224	Complex Variable & Fourier Analysis	3	0	3	CS-215	Signals and Systems	2	1	3
EE-217	Circuit Theory	2	0	2	CS-222	Database Management Systems	3	1	4
CS-218	Data Structures and Algorithms	3	1	4	MT-222	Linear Algebra & Ordinary Differential Equation	3	0	3
EA-218	Business Communication	2	1	3	EA-219	Professional Ethics	2	0	2
CS-219	Computer Engineering Workshop	0	1	1	EA-200	Community Service	-	-	NC

THIRD YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours		Course Code	Course Title	Credit Hours			
		Th	Pr	Total		Th	Pr	Total	
MT-335	Probability and Statistics	3	0	3	CS-329	Operating Systems	3	1	4
CS-326	Software Engineering	3	1	4	CS-301	Microprocessor Based System Design	3	1	4
CS-327	Computer Communication Networks	3	1	4	##-###	Elective-I	3	1	4
CS-328	Computer Architecture	3	0	3	MT-442	Numerical Methods	3	0	3
CS-323	Artificial Intelligence	3	1	4	EF-305	Engineering Economics & Management	3	0	3
					EA/ES-###	Foreign Language-I	-	-	NC

FINAL YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
CS-425	Entrepreneurship of Computer Engineers	3	0	3	CS-406	Computer Engineering Project	0	3	3
CS-419	Digital Signal Processing	3	1	4	CS-438	Computer Systems Modelling	3	0	3
CS-431	Digital System Design	3	1	4	CS-432	Distributed Computing	2	1	3
CS-406	Computer Engineering Project*	0	3	3	###-###	Elective-3	2	1	3
###-###	Elective-2	2	0	2	MG-482	Organizational Behaviour	3	0	3
EA/ES-###	Foreign Language-II	-	-	NC					

Elective-1 (3+1) (to be chosen from the following)

CS-330 Digital Communication Systems
CS-324 Machine Learning
CS-325 Software Development & Testing

Elective-2 (2+0) (to be chosen from the following)

CS-433 Internet Computing
CS-434 Bioinformatics
CS-435 Software Project Management

Elective-3 (2+1) (to be chosen from the following)

CS-426 Computer Systems Security
CS-436 Computer Vision
CS-437 Parallel Programming

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.11 Electronic Engineering

FIRST YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Th	Hours Pr	Total	Course Code	Course Title	Credit Th	Hours Pr	Total
EA-111	Functional English	2	0	2	EE-121	Circuit Analysis	3	1	4
EE-120	Basic Electrical Engineering	3	1	4	EL-106	Basic Electronic	3	1	4
MT-171	Differential & Integral Calculus	3	0	3	MT-227	Differential Equations	3	0	3
EL-104	Electronic Engineering Drawing and Workshop	0	2	2	ME-110	Basic Mechanical Engineering	2	0	2
PH-112	Applied Physics	2	1	3	CY-110	Applied Chemistry for Engineers	2	1	3
EL-105	Computer and Programming	3	1	4	ES-105	Pakistan Studies OR	2	0	2
					ES-127	Pakistan Studies (For Foreigners)			

SECOND YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Th	Hours Pr	Total	Course Code	Course Title	Credit Th	Hours Pr	Total
EL-201	Electronic Devices and Circuits	3	1	4	EL-202	Integrated Circuits	3	1	4
EA-214	Academic Writing	3	0	3	CS-216	Data Structure & Algorithms	3	0	3
TC-202	Signals and Systems	2	1	3	EE-223	Instrumentation and Measurement	2	1	3
EE-382	Electromagnetic Fields	2	0	2	EE-246	Electrical Machines	2	1	3
MT-272	Linear Algebra & Geometry	3	0	3	ES-205	Islamic Studies OR	2	0	2
TC-201	Digital Logic Design	2	1	3	ES-209	Ethical Behaviour			
					TC-212	Digital Signal Processing	2	1	3
					EA-200	Community Service	-	-	NC

THIRD YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
MT-331	Probability and Statistics	3	0	3	CS-430	Microprocessor Programming & Interfacing	3	1	4
TC-307	Communication Systems	3	1	4	EA-304	Business Communication & Ethics	3	0	3
EF-304	Occupational Safety & Health	2	0	2	EF-305	Engineering Economics & Management	3	0	3
EL-307	Power Electronics	3	1	4	EL-309	Artificial Intelligence and Machine Learning	2	0	2
EE-374	Feedback Control Systems	3	1	4	EL-308	Industrial Electronics	2	1	3
					EA/ES-###	Foreign Language-I	-	-	NC

FINAL YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
MT-442	Numerical Methods	3	0	3	TC-421	Telecommunication Networks	3	1	4
EL-409	VLSI Systems Design	2	1	3	EL-421	Embedded Electronics	3	1	4
MG-482	Organizational Behavior	3	0	3	###-###	Elective	2	0	2
EL-422	Robotics	3	1	4	MG-481	Entrepreneurship	3	0	3
EL-401	Electronic Engineering Project*	0	3	3	EL-401	Electronic Engineering Project	0	3	3
EA/ES-###	Foreign Language-II	-	-	NC					

Elective Courses (to be chosen from the following)

EL-410	Nanoelectronics	2	0	2
EL-411	Optoelectronics	2	0	2
EL-412	Microwave and RF Circuits	2	0	2

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.12 Telecommunications Engineering

FIRST YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EA-111	Functional English	2	0	2	EL-103	Basic Electronics	3	1	4
TC-106	Computer Programming	3	1	4	CY-110	Applied Chemistry for Engineers	2	1	3
EE-120	Basic Electrical Engineering	3	1	4	EE-121	Circuit Analysis	3	1	4
MT-114	Calculus	3	0	3	EL-104	Electronic Engineering Drawing and Workshop	0	2	2
ES-105	Pakistan Studies OR	2	0	2	MT-227	Differential Equations	3	0	3
ES-127	Pakistan Studies (For Foreigners)								
PH-112	Applied Physics	2	1	3					

SECOND YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EE-382	Electromagnetic Fields	2	0	2	EF-305	Engineering Economics & Management	3	0	3
CS-216	Data Structure & Algorithms	3	0	3	EE-223	Instrumentation and Measurement	2	1	3
ES-205	Islamic Studies OR	2	0	2	EA-214	Academic Writing	3	0	3
ES-209	Ethical Behaviour (for Non-Muslims)				MT-272	Linear Algebra & Geometry	3	0	3
TC-205	Digital Logic Design	3	1	4	MT-331	Probability & Statistics	3	0	3
TC-206	Signals & Systems	3	0	3	TC-212	Digital Signal Processing	2	1	3
EL-201	Electronic Devices and Circuits	3	1	4	EA-200	Community Service	-	-	NC

THIRD YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EA-304	Business Communication and Ethics	3	0	3	TC-421	Telecommunication Networks	3	1	4
TC-317	Artificial Intelligence and Machine Learning	2	1	3	EF-304	Occupational Safety & Health	2	0	2
EE-374	Feedback Control System	3	1	4	TC-314	Wireless & Mobile Communication	3	1	4
TC-313	Antenna and Microwave Engineering	3	1	4	TC-315	Optical Fiber Communication	3	1	4
TC-307	Communication Systems	3	1	4	TC-311	Digital Communications and Information Theory	3	1	4
					EA/ES-###	Foreign Language-I	-	-	NC

FINAL YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
MT-442	Numerical Methods	3	0	3	MG-481	Entrepreneurship	3	0	3
CS-430	Microprocessor Programming and Interfacing	3	1	4	TC-431	Wireless Technologies and RF Planning	2	0	2
##-###	Elective-I	2	0	2	TC-434	Telecommunication Switching Systems	2	1	3
MG-482	Organizational Behaviour	3	0	3	##-###	Elective-II	2	0	2
TC-490	Telecomm Engineering Project*	0	3	3	TC-490	Telecomm Engineering Project	0	3	3
EA/ES-###	Foreign Language-II	-	-	NC	TC-432	Communication Security	2	0	2

Elective-I (to be chosen from the following)

Elective-II (to be chosen from the following)

TC-429	Telecom Policies & Standards	2	0	2	TC-422	Satellite Communication	2	0	2
TC-430	Multimedia Communication Systems	2	0	2	TC-423	Navigational Aids and Radar Systems	2	0	2
TC-433	Internet of Things	2	0	2	TC-427	Digital Image Processing	2	0	2

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.13 Biomedical Engineering

FIRST YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
MT-100	Introduction to Mathematics	4	0	4	MT-114	Calculus	3	0	3
BM-120	Introduction to Biology	3	1	4	EE-119	Fundamentals of Electrical Engineering	3	1	4
BM-101	Introduction to Biomedical Engineering	1	0	1	BM-114	Anatomy	3	1	4
CY-110	Applied Chemistry for Engineers	2	1	3	BM-115	Physiology-I	2	1	3
PH-127	Applied Physics for Engineers	2	1	3	ES-105	Pakistan Studies OR	2	0	2
EA-111	Functional English	2	0	2	ES-127	Pakistan Studies (for Foreigners)			
CS-113	Introduction to Computing	1	1	2	BM-130	Computer Aided Engineering Graphics	1	1	2

SECOND YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EE-217	Circuit Theory	2	0	2	BM-222	Engineering Mechanics for Biomedical Engineers	3	0	3
BM-209	Basic Electronics	3	1	4	MT-223	Ordinary Differential Equations & Fourier Series	3	0	3
CS-109	Computer Programming	2	1	3	BM-203	Cellular and Molecular Biology	2	0	2
MT-272	Linear Algebra & Geometry	3	0	3	TC-201	Digital Logic Design	2	1	3
BM-230	Biochemistry	2	1	3	ES-205	Islamic Studies OR	2	0	2
BM-116	Physiology-II	2	1	3	ES-209	Ethical Behaviour			
					BM-208	Biomedical Electronics	3	1	4
					EA-200	Community Service	-	-	NC

THIRD YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
BM-307	Bioinformatics	2	1	3	BM-310	Control Systems for Biomedical Engineers	2	1	3
BM-312	Biostatistics	2	1	3	BM-311	Bioinstrumentation & Measurements-II	3	1	4
EF-305	Engineering Economics and Management	3	0	3	EA-202	Business Communication	3	0	3
BM-306	Bioinstrumentation & Measurements-I	3	1	4	BM-313	Biomaterials	3	1	4
CS-430	Microprocessor Programming and Interfacing	3	1	4	EE-493	Digital Signal Processing	3	1	4
					EA/ES-###	Foreign Language-I	-	-	NC

FINAL YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
##-###	Electives-1	3/2	0/1	3	BM-413	Bio-Medical Engineering Project	0	3	3
##-###	Electives-2	3/2	0/1	3	MG-481	Entrepreneurship	3	0	3
BM-401	Numerical Methods for Biomedical Engineering	3	0	3	BM-452	Modelling and Simulation for Biomedical Engineers	2	1	3
BM-406	Biomedical Imaging	2	1	3					
BM-451	Biosignal Processing	2	1	3	##-###	Electives-3	3/2	0/1	3
BM-413	Bio-Medical Engineering Project*	0	3	3	EA-219	Professional Ethics	2	0	2
EA/ES-###	Foreign Language-II	-	-	NC	##-###	Electives-4	3/2	0/1	3

Elective Courses (to be chosen from the following)

BM-421	Genetic Engineering	3	0	3	BM-426	Ergonomics	3	0	3
BM-422	Biotechnology	2	1	3	BM-427	Product Design in Biomedical Engineering	3	0	3
BM-423	Introduction to Robotics	2	1	3	BM-429	Tissue Engineering	2	1	3
BM-424	Fluid Dynamics	3	0	3	BM-430	Rehabilitation Engineering	2	1	3
BM-425	Telemedicine	3	0	3	BM-431	Biophotonics	3	0	3
BM-404	Biomechanics	2	1	3	BM-432	Neuroscience & Neural Networks	2	1	3
BM-435	Biophysics	3	0	3					

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.14 Software Engineering

FIRST YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
SE-101	Programming Fundamentals	2 1 3	SE-201	Object Oriented Concepts & Programming	3 1 4
CT-174	Fundamentals of Information Technology	2 1 3	PH-122	Applied Physics	3 1 4
CT-162	Discrete Structures	3 0 3	SE-207	Software Engineering	3 0 3
EA-111	Functional English	2 0 2	EA-115	Academic Reading and Writing	3 0 3
MT-173	Calculus	3 0 3	ES-205	Islamic Studies OR	2 0 2
ES-105	Pakistan Studies OR	2 0 2	ES-209	Ethical Behaviour	
ES-127	Pakistan Studies (for Foreigners)				
EF-100	Occupational Health and Safety	1 0 1			

SECOND YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
CT-157	Data Structure Algorithms & Applications	3 1 4	MT-224	Complex Variables & Fourier Analysis	3 0 3
SE-308	Software Design & Architecture	2 1 3	MT-331	Probability & Statistics	3 0 3
SE-209	Computer Architecture and Logic Design	3 1 4	SE-312	Software Construction & Development	2 1 3
MT-273	Differential Equations & Linear Algebra	3 0 3	SE-204	Database Management Systems	3 1 4
EA-208	Business Communications	3 0 3	EF-206	Engineering Economics and Management	2 0 2
			CT-363	Design and Analysis of Algorithms	3 0 3
			EA-200	Community Service	- - NC

THIRD YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
CS-351	Computer Communication Networks	3 1 4	SE-322	Software Quality Engineering	3 0 3
MG-212	Technology Management	3 0 3	SE-310	Software Project Management	3 0 3
SE-303	Operating Systems	3 1 4	SE-313	Formal Methods in Software Engineering	3 0 3
SE-311	E-Commerce	3 0 3	##-###	Elective I	3 0 3
MT-471	Applied Numerical Methods	2 1 3	SE-304	Human Computer Interaction	2 1 3
			SE-412	Artificial Intelligence	3 0 3
			EA/ES-###	Foreign Language-I	- - NC

FINAL YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
SE-401	Information Security	3 0 3	SE-491	Entrepreneurship & Marketing for Software Engineers	2 0 2
SE-490	Cloud Computing	2 1 3	SE-403	Internet of Things	3 0 3
SE-484	Software Testing Strategies & Techniques	3 1 4	SE-485	Software Reliability Engineering	3 0 3
##-###	Elective II	2 1 3	##-###	Elective III	3 1 4
SE-499	Software Engineering Project*	0 3 3	SE-499	Software Engineering Project	0 3 3
EA/ES-###	Foreign Language-II	- - NC			
Elective – I (to be chosen from the following)			Elective – II (to be chosen from the following)		
SE-486	Information Systems Engineering	3 0 3	SE-458	Mobile Application Development	2 1 3
SE-318	Social Network Analysis	3 0 3	SE-455	Distributed Processing	2 1 3
CT-358	Fuzzy Systems	3 0 3	SE-456	Data Warehouse Mining	2 1 3
CT-359	Knowledge Based Systems	3 0 3	SE-402	Embedded Systems	2 1 3
SE-408	Design Patterns	3 0 3	CT-403	Blockchain Technologies	2 1 3
			SE-317	Machine Learning	2 1 3
Elective – III (to be chosen from the following)					
SE-315	Big Data Analytics	3 1 4	CS-330	Digital Communication System	3 1 4
SE-488	Computer Vision Fundamentals	3 1 4	SE-468	Deep Learning	3 1 4
CT-485	Natural Language Processing	3 1 4	SE-469	Reinforcement Learning	3 1 4
SE-316	Data Encryption and Security	3 1 4			

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.15 Chemical Engineering

FIRST YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
CH-104	Chemical Engineering Principles	3	1	4	CH-106	Applied Chemistry	2	1	3
ME-101	Engineering Mechanics	3	1	4	CH-107	Chemical Engineering Thermodynamics-I	2	1	3
ME-104	Workshop Practice	0	2	2	ME-111	Engineering Drawing	2	1	3
EA-104	Functional English	3	0	3	EE-118	Basic Electricity & Electronics	3	1	4
PH-122	Applied Physics	3	1	4	MT-114	Calculus	3	0	3
					ES-105	Pakistan Studies OR	2	0	2
					ES-127	Pakistan Studies (for Foreigners)			

SECOND YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
CH-208	Analytical Chemistry	2	1	3	CH-213	Chemical Process Industries	2	0	2
CH-210	Chemical Engineering Thermodynamics-II	2	1	3	ME-209	Materials & Metallurgy	3	1	4
CH-209	Fluid Mechanics-I	2	1	3	CH-211	Fluid Mechanics-II	2	1	3
MM-205	Mechanics of Materials	3	1	4	MT-223	Differential Equation & Fourier Series	3	0	3
IM-207	Computer Programming & Drafting	2	1	3	ES-205	Islamic Studies OR	2	0	2
					ES-209	Ethical Behaviour			
					CH-212	Particulate Technology	2	1	3
					EA-200	Community Service	-	-	NC

THIRD YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit		Hours	Course Code	Course Title	Credit		Hours
		Th	Pr	Total			Th	Pr	Total
CH-310	Fuel & Energy	2	1	3	CH-302	Separation Processes	3	1	4
CH-307	Heat Transfer	3	1	4	CH-306	Chemical Process Control	3	1	4
CH-309	Chemical Reaction Engineering	3	1	4	EA-304	Business Communication & Ethics	3	0	3
CH-311	Mass Transfer	3	1	4	MT-331	Probability and Statistics	3	0	3
MT-332	Advanced Calculus & Linear Algebra	3	0	3	PF-303	Applied Economics for Engineers	3	0	3
					EA/ES-###	Foreign Language-I	-	-	NC

FINAL YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
CH-401	Process Modelling & Simulation	3	1	4	CH-417	Industrial Safety & Maintenance Management	2	0	2
CH-414	Chemical Plant Design	2	0	2					
CE-427	Introduction to Entrepreneurship & Opportunity Assessment	2	0	2	CH-418	Industrial Organization & Management	2	0	2
					##-###	Elective Course	2	0	2
CH-416	Petroleum Refinery & Petrochemical	2	1	3	CH-404	Chemical Process Optimization	3	1	4
MT-441	Advanced Mathematical Techniques	3	0	3	CH-415	Transport Phenomena	3	0	3
CH-499	Chemical Engineering Project*	0	3	3	CH-499	Chemical Engineering Project	0	3	3
EA/ES-###	Foreign Language-II	-	-	NC					

Inter-Disciplinary Elective (to be chosen from the following)

- CH-408 Polymer Technology
- CH-410 Water Purification Process
- CH-411 Environmental Pollution Control
- CH-412 Biochemical Engineering
- CH-413 Gas Engineering

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.16 Polymer & Petrochemical Engineering

FIRST YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
PP-105	Introduction to Petrochemicals	2 0 2	PP-104	Introduction to Polymers	3 1 4
PP-106	Thermodynamics-I	2 0 2	ME-101	Engineering Mechanics	3 1 4
EA-104	Functional English	3 0 3	ME-111	Engineering Drawing	2 1 3
PH-122	Applied Physics	3 1 4	ES-105	Pakistan Studies OR	2 0 2
MT-114	Calculus	3 0 3	ES-127	Pakistan Studies (for Foreigners)	
PP-103	Workshop Practice	0 1 1	EE-118	Basic Electricity and Electronics	3 1 4

SECOND YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
PP-203	Principles of Chemical Processes	2 1 3	PP-202	Polymer Physics	3 0 3
PP-207	Fluid Mechanics	3 0 3	PP-205	Petroleum & Petrochemical Products	2 0 2
PP-209	Thermodynamics-II	3 0 3	PP-212	Polymeric Materials & Their Characterization	3 0 3
PP-211	Computer Programming and Application	2 1 3	MM-205	Mechanics of Material	3 1 4
MT-330	Applied Probability and Statistics	2 1 3	MT-215	Differential Equations & Complex Variables	3 0 3
ES-205/	Islamic Studies OR	2 0 2	PP-222	Polymer & Petrochemical Lab-II	0 1 1
ES-209	Ethical Behaviour		EA-200	Community Service	- - NC
PP-221	Polymer & Petrochemical Lab-I	0 1 1			

THIRD YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
PP-210	Polymer Processing	2 0 2	PP-301	Process Control & Instrumentation	3 0 3
PP-307	Polymer Composites	3 0 3	PP-305	Fuels & Combustion	2 0 2
PP-308	Heat Transfer	3 0 3	PP-310	Industrial Organization and Management	2 1 3
PP-309	Mass Transfer	3 0 3	PP-311	Chemical Reaction Engineering	3 0 3
MT-471	Applied Numerical Method	2 1 3	PF-303	Applied Economics for Engineers	3 0 3
PP-321	Polymer & Petrochemical Lab-III	0 1 1	EA-304	Business Communication and Ethics	3 0 3
PP-322	Polymer & Petrochemical Lab-IV	0 1 1	PP-323	Polymer & Petrochemical Lab-V	0 1 1
			EA/ES-### Foreign Language-I		- - NC

FINAL YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
PP-402	Petrochemical Processes	3 1 4	PP-403	Plant Utilities & Safety	2 1 3
PP-406	Process Equipment Design	3 0 3	PP-430	Mechanical Properties of Polymers	2 0 2
PP-410	Polymer Reaction Engineering	3 0 3	PP-414	Petroleum Refinery Engineering	2 1 3
PP-411	Separation Processes	3 1 4	##-###	Elective Course	2/1 0/1 2
PP-413	Process Optimization	3 0 3	MG-481	Entrepreneurship	3 0 3
PP-421	Polymer & Petrochemical Lab-VI	0 1 1	PP-408	Polymer and Petrochemical Engineering Project	0 3 3
PP-408	Polymer and Petrochemical Engineering Project*	0 3 3			
EA/ES-###	Foreign Language-II	- - NC			

Elective Courses (to be chosen from the following)

PP-412	Environmental Engineering	2 0 2
PP-425	Polymer Rheology	2 0 2
PP-427	Rubber Technology	2 0 2
PP-428	Process Modeling & Simulation	1 1 2
PP-429	Gas Engineering	2 0 2

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.17 Materials Engineering

FIRST YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit		Hours Total	Course Code	Course Title	Credit		Hours Total
		Th	Pr				Th	Pr	
MM-102	Introduction to Engineering Materials	2	0	2	EE-118	Basic Electricity & Electronics	3	1	4
ME-101	Engineering Mechanics	3	1	4	AU-102	Engineering Drawing and Computer Graphics	2	1	3
ME-104	Workshop Practice	0	2	2	CY-109	Applied Chemistry	3	1	4
PH-122	Applied Physics	3	1	4	MT-114	Calculus	3	0	3
EA-104	Functional English	3	0	3	ES-105	Pakistan Studies OR	2	0	2
					ES-127	Pakistan Studies (for Foreigners)			

SECOND YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
MM-201	Physical Metallurgy	3	1	4	ES-205	Islamic Studies OR	2	0	2
MM-204	Engineering Ceramics and Refractory Materials	3	0	3	ES-209	Ethical Behaviour			
MM-205	Mechanics of Materials	3	1	4	IM-207	Computer Programming and Drafting	2	1	3
MT-215	Differential Equations and Complex Variables	3	0	3	MM-202	Production and Refining of Materials	3	0	3
MY-211	Metallurgical Thermodynamics & Kinetics	3	0	3	MM-208	Fundamentals of Modern Manufacturing and Foundry	3	1	4
					MM-307	Joining of Materials	3	1	4
					MM-309	Construction Materials	2	0	2
					EA-200	Community Service	-	-	NC

THIRD YEAR

Fall Semester				Spring Semester				
Course Code	Course Title	Credit		Hours Total	Course Code	Course Title	Credit	
		Th	Pr				Th	Pr
MM-301	Corrosion: Protection and Prevention	3	1	4	MM-305	Polymer and Composite Materials	3	1
MM-303	Inspection and Testing of Materials	3	1	4	MM-308	Materials Characterisation and Analytical Techniques	3	1
MM-304	Heat Treatment of Materials	3	1	4				
EA-304	Business Communication and Ethics	3	0	3	PF-303	Applied Economics for Engineers	3	0
MT-315	Mathematical Methods	3	0	3	MG-481	Entrepreneurship	3	0
					MT-441	Advanced Mathematical Techniques	3	0
					EA/ES-###	Foreign Language-I	-	NC

FINAL YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours		Course Code	Course Title	Credit Hours			
		Th	Pr			Total	Th	Pr	Total
MM-404	Phase Transformations in Materials	3	1	4	MM-402	Design and Selection of Materials	2	1	3
MM-411	Nanomaterials and Nanotechnology	3	0	3	##-###	Elective-II	3	0	3
MM-412	Surface Engineering	2	1	3	MM-415	Material Deformations and Failures: Mechanism and Analysis	3	0	3
##-###	Elective-I	2	0	2					
MM-414	Total Quality Management	3	0	3	MM-416	Biomedical and Functional Materials	2	0	2
MM-410	Materials Engineering Project*	0	3	3	IM-417	Health, Safety and Environment	2	1	3
EA/ES-###	Foreign Language-II	-	-	NC	MM-410	Materials Engineering Project	0	3	3

Elective – I (2 + 0) (to be chosen from the following)

Elective – II (3 + 0) (to be chosen from the following)

MM-413	Nuclear Materials	2	0	2	MY-402	Advanced Materials	3	0	3
MY-411	Vacuum Metallurgy	2	0	2	MY-409	Metallurgical Plants and Quality Control	3	0	3
MY-412	Metallurgy of Advanced Steels	2	0	2					

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.18 Metallurgical Engineering

FIRST YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
MY-101	Introduction to Metallurgical Engg.	2	1	3	EE-116	Principles of Electrical Engineering	3	1	4
EA-111	Functional English	2	0	2	ME-101	Engineering Mechanics	3	1	4
PH-122	Applied Physics	3	1	4	CY-109	Applied Chemistry	3	1	4
ME-111	Engineering Drawing	2	1	3	ME-104	Workshop Practice	0	2	2
MT-114	Calculus	3	0	3	ES-105	Pakistan Studies OR	2	0	2
					ES-127	Pakistan Studies (for Foreigners)			

SECOND YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
MT-215	Differential Equation and Complex Variables	3	0	3	MY-210	Iron Making Processes	2	0	2
MY-211	Metallurgical Thermodynamics and Kinetics	3	0	3	MY-208	Mineral Processing	2	1	3
MM-201	Physical Metallurgy	3	1	4	IM-207	Computer Programming and Drafting	2	1	3
EE-221	Instrumentation	3	1	4	MY-207	Mechanical Behaviour of Materials	2	1	3
ES-205	Islamic Studies OR	2	0	2	MY-209	Metal Forming and Shaping Processes	2	1	3
ES-209	Ethical Behaviour				MY-206	Furnances and Refractories	3	1	4
					EA-200	Community Service	-	-	NC

THIRD YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
MM-303	Inspection and Testing of Materials	3	1	4	MY-304	Metallurgy of Welding	2	1	3
MY-308	Polymer & Composite Materials	2	1	3	MY-310	Non-Ferrous Extractive Metallurgy	3	0	3
MT-315	Mathematical Methods	3	0	3	EA-304	Business Communication and Ethics	3	0	3
MY-303	Foundry: Principles, Methods and Practice	3	1	4	MM-304	Heat Treatment of Materials	3	1	4
MG-481	Entrepreneurship	3	0	3	PF-303	Applied Economics for Engineers	3	0	3
					MY-309	Steel Making Processes	2	0	2
					EA/ES-####	Foreign Language-I	-	-	NC

FINAL YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
MY-407	Design, Selection and Characterisation of	3	1	4	MY-409	Metallurgical Plants and Quality Control	3	0	3
MY-410	Engineering Materials	2	1	3	MY-406	Powder Metallurgy	2	1	3
MY-413	Fracture Mechanics and Failure Analysis	2	1	3	CH-407	Industrial Organization & Management	2	1	3
	Corrosion Engineering				MY-411	Vacuum Metallurgy	2	0	2
IM-417	Health Safety and Environment	2	1	3	MY-408	Metallurgical Engineering Project	0	3	3
MY-408	Metallurgical Engineering Project*	0	3	3	##-###	Elective-II	3	0	3
EA/ES-###	Foreign Language-II	-	-	NC					
##-###	Elective-I	2	0	2					

Elective – I (2 + 0) (to be chosen from the following)

Elective – II (3 + 0) (to be chosen from the following)

MM-408	High Temperature Materials and Superalloys	2	0	2	MY-402	Advanced Materials	3	0	3
MM-413	Nuclear Materials	2	0	2	MM-411	Nanomaterials and Nanotechnology	3	0	3
MY-412	Metallurgy of Advanced Steels	2	0	2					

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.1.19 Food Engineering

FIRST YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
BM-108	Computer Aided Engineering Graphics	1 2 3	ES-105	Pakistan Studies OR	2 0 2
CY-110	Applied Chemistry for Engineers	2 1 3	ES-127	Pakistan Studies (for Foreigners)	
FD-104	Introduction to Food Engineering	2 0 2	CS-103	Programming Languages	2 2 4
EA-104	Functional English	3 0 3	CY-108	Analytical Chemistry	3 1 4
MT-114	Calculus	3 0 3	EL-232	Electronics	3 1 4
PH-127	Applied Physics for Engineers	2 1 3	FD-105	Food Engineering Principles	2 0 2

SECOND YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
BM-201	Engineering Mechanics	3 1 4	FD-208	Food Biochemistry	2 1 3
FD-201	Thermodynamics	3 1 4	FD-210	Fluid Mechanics-II	2 1 3
FD-207	Food Chemistry	3 0 3	MM-205	Mechanics of Materials	3 1 4
FD-209	Fluid Mechanics-I	3 1 4	MT-332	Advance Calculus & Linear Algebra	3 0 3
MT-223	Differential Equ. & Fourier Series	3 0 3	ES-205	Islamic Studies OR	2 0 2
			ES-209	Ethical Behaviour	
			EA-200	Community Service	- - NC

THIRD YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
FD-301	Unit Operations in Food Engg.-I	3 1 4	FD-304	Food Microbiology	3 1 4
FD-309	Machine Design for Food Engineers	3 0 3	FD-307	Heat & Mass Transfer	3 1 4
FD-306	Instrumentation & Measurement for Food Engineers	3 1 4	FD-308	Unit Operations in Food Engg.-II	3 1 4
MT-330	Applied Probability & Statistics	2 1 3	MT-442	Numerical Method	3 0 3
EA-304	Business Communications & Ethics	3 0 3	BF-303	Applied Economics for Engineers	3 0 3
			EA/ES-###	Foreign Language-I	- - NC

FINAL YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
FD-410	Food Processing	3 0 3	FD-408	Food Regulations and Legislation	2 0 2
FD-402	Food Quality Control	3 0 3	###-###	Electives-III (Management Sciences)	3 0 3
FD-419	Process Control in Food Industry	2 1 3	###-###	Electives-IV (Social Sciences)	2 0 2
###-###	Electives-I (Food Engineering)	2 1 3	FD-420	Fundamentals of Food Packaging	3 1 4
###-###	Electives-II (Food Engineering)	2 1 3	FD-411	Food Plant Layout and Design	2 1 3
FD-430	Food Engineering Project*	0 3 3	FD-430	Food Engineering Project	0 3 3
EA/ES-###	Foreign Language-II	- - NC			

Elective-I and Elective - II (Food Engineering)

FD-403	Food Biotechnology	2 1 3	FD-414	Beverage Processing	2 1 3
FD-404	Sugar and Confectionery	2 1 3	FD-415	Meat, Poultry and Egg Processing	2 1 3
FD-409	Post Harvest Processing	2 1 3	FD-416	Food Product Development	2 1 3
FD-412	Dairy Processing	2 1 3	FD-417	Oil and Fats Processing	2 1 3
FD-413	Cereal Processing	2 1 3	FD-418	Food Plant Hygiene and Sanitation	2 1 3

Elective-III (Management Sciences)

CH-405	Ind. Safety and Maintenance Management	2 1 3
CH-407	Industrial Organisation and Management	3 0 3

Elective-IV (Social Sciences)

EA-219	Professional Ethics	2 0 2
MG-228	Sociology and Development	2 0 2

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.2 Bachelor of Science Programmes

3.2.1 Computer Science

FIRST YEAR (Common to all Specialisations)

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
CT-175	Programming Fundamentals	3	1	4	CS-251	Logic Design and Switching Theory	3	1	4
CT-174	Fundamentals of Information Technology	2	1	3	CT-162	Discrete Structures	3	0	3
EA-104	Functional English	3	0	3	CT-260	Object Oriented Programming	3	1	4
PH-122	Applied Physics	3	1	4	MT-171	Differential and Integral Calculus	3	0	3
ES-205	Islamic Studies OR	2	0	2	ES-105	Pakistan Studies OR	2	0	2
ES-209	Ethical Behaviour (for Non-Muslims)				ES-127	Pakistan Studies (for Foreigners)			
MT-001	Mathematics-1 (for Pre-Medical)			NC	MT-002	Mathematics-2 (for Pre-Medical)			NC

SECOND YEAR (Common to all Specialisations)

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
CT-159	Data Structure Algorithms and Applications	3	1	4	CS-252	Computer Architecture and Organization	3	1	4
MT-227	Differential Equations	3	0	3	CT-261	Database Management Systems	3	1	4
EA-115	Academic Reading and Writing	3	0	3	EA-218	Business Communication	2	1	3
EA-219	Professional Ethics	2	0	2	EC-209	Financial and Cost Accounting	3	0	3
MT-331	Probability and Statistics	3	0	3	MT-272	Linear Algebra and Geometry	3	0	3
					EA-200	Community Service			NC

THIRD YEAR (Computer Science)

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
##-###	Computer Science Elective I	2	1	3	##-###	Computer Science Elective III	3	0	3
##-###	Computer Science Elective II	3	0	3	CT-376	Computer Communication Networks	3	1	4
CT-365	Software Engineering	3	0	3	CT-353	Operating Systems	3	1	4
CT-262	Introduction to Artificial Intelligence	2	1	3	CT-362	Web Engineering	3	1	4
CT-363	Design and Analysis of Algorithms	3	0	3	CT-367	Theory of Programming Languages	3	0	3
CT-364	Theory of Automata and Formal Languages	3	0	3	EA/ES-###	Foreign Language - I			NC

FINAL YEAR (Computer Science)

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
CT-499	Computer Science Project*	0	3	3	CT-499	Computer Science Project	0	3	3
MG-482	Organisational Behaviour	3	0	3	##-###	Computer Science Elective V	3	1	4
##-###	Computer Science Elective IV	3	1	4	CS-428	Parallel and Distributed Computing	3	1	4
CT-486	Network and Information Security	3	1	4	CT-465	Compiler Design	3	0	3
CT-407	Human Computer Interaction	3	0	3	MG-481	Entrepreneurship	3	0	3
EA/ES-###	Foreign Language – II			NC					

Elective – I Computer Science (to be chosen from the following)

Elective – II Computer Science (to be chosen from the following)

CT-263	Object Oriented Analysis and Design	2	1	3	MT-442	Numerical Methods	3	0	3
CT-264	Programming for Artificial Intelligence	2	1	3	CT-377	Data Mining	3	0	3
CT-368	Fundamentals of Data Science	2	1	3	CT-378	Machine Learning	3	0	3
CT-266	Fundamentals of Cybersecurity	2	1	3					
CT-267	Fundamentals of Game Development	2	1	3					





Elective – III Computer Science (to be chosen from the following)

CT-366	E-Commerce	3	0	3
CT-485	Natural Language Processing	3	0	3
CT-403	Blockchain Technologies	2	1	3
CT-464	Modeling and Simulation	3	0	3

Elective – IV Computer Science (to be chosen from the following)

CT-352	Computer Graphics	3	1	4
CT-487	Visual Programming	3	1	4
CT-488	Distributed Computing	3	1	4

Elective – V Computer Science (to be chosen from the following)

CT-463	Data Warehouse Mining	3	1	4
CT-481	Wireless Network and Mobile Computing	3	1	4
CT-484	Introduction to Cyber Security	3	1	4

THIRD YEAR (Specialisation: Artificial Intelligence)

Fall Semester				Spring Semester			
Course Code	Course Title	Credit Hours		Course Code	Course Title	Credit Hours	
Th	Pr	Total		Th	Pr	Total	
##-###	Artificial Intelligence Elective I	2	1	##-###	Artificial Intelligence Elective III	3	0
##-###	Artificial Intelligence Elective II	3	0	CT-363	Design and Analysis of Algorithms	3	0
CT-361	Artificial Intelligence and Expert Systems	3	1	CT-376	Computer Communication Networks	3	1
CT-353	Operating Systems	3	1	CS-428	Parallel and Distributed Computing	3	1
CT-365	Software Engineering	3	0	CT-354	Machine Learning	3	1
				EA/ES-###	Foreign Language - I		NC

FINAL YEAR (Specialisation: Artificial Intelligence)

Fall Semester				Spring Semester			
Course Code	Course Title	Credit Hours		Course Code	Course Title	Credit Hours	
Th	Pr	Total		Th	Pr	Total	
CT-499	Computer Science Project*	0	3	CT-499	Computer Science Project	0	3
##-###	Artificial Intelligence Elective IV	3	0	##-###	Artificial Intelligence Elective V	3	0
CT-466	Artificial Neural Networks	3	0	CT-486	Network and Information Security	3	1
CT-485	Natural Language Processing	3	0	CT-467	Image Processing and Computer Vision	3	1
MG-482	Organisational Behaviour	3	0	MG-481	Entrepreneurship	3	0
CT-351	Knowledge Representation and Reasoning	3	0				
EA/ES-###	Foreign Language - II		NC				

Elective – I Artificial Intelligence (to be chosen from the following)

CT-263	Object Oriented Analysis and Design	2	1	3
CT-264	Programming for Artificial Intelligence	2	1	3
CT-368	Fundamentals of Data Science	2	1	3
CT-266	Fundamentals of Cybersecurity	2	1	3
CT-267	Fundamentals of Game Development	2	1	3

Elective – II & III Artificial Intelligence (to be chosen from the following)

CT-358	Fuzzy Systems	3	0	3
CT-359	Knowledge Based Systems	3	0	3
CT-377	Data Mining	3	0	3
CT-357	Speech Processing	3	0	3

Elective – IV Artificial Intelligence (to be chosen from the following)

CT-468	Deep Learning	3	0	3
CT-403	Blockchain Technologies	2	1	3
CT-470	Swarm Intelligence	3	0	3

Elective – V Artificial Intelligence (to be chosen from the following)

CT-469	Reinforcement Learning	3	0	3
CT-410	Generative AI	3	0	3

THIRD YEAR (Specialisation: Data Science)

Fall Semester				Spring Semester			
Course Code	Course Title	Credit Hours		Course Code	Course Title	Credit Hours	
Th	Pr	Total		Th	Pr	Total	
##-###	Data Science Elective I	2	1	##-###	Data Science Elective III	3	0
##-###	Data Science Elective II	3	0	CT-356	Data Mining	3	1
CT-265	Introduction to Tools and Techniques for Data Science	2	1	CT-376	Computer Communication Networks	3	1
CT-365	Software Engineering	3	0	CT-363	Design and Analysis of Algorithms	3	0
CT-361	Artificial Intelligence and Expert Systems	3	1	CT-353	Operating Systems	3	1
				EA/ES-###	Foreign Language - I		NC





FINAL YEAR (Specialisation: Data Science)

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
CT-499	Computer Science Project*	0	3	3	CT-499	Computer Science Project	0	3	3
##-###	Data Science Elective IV	3	0	3	##-###	Data Science Elective V	3	0	3
CT-472	Data Warehousing and Business Intelligence	3	1	4	MG-482	Organisational Behaviour	3	0	3
CT-471	Data Analysis and Visualisation	3	1	4	MG-481	Entrepreneurship	3	0	3
CS-428	Parallel and Distributed Computing	3	1	4	CT-355	Information Security	3	0	3
EA/ES-###	Foreign Language - II			NC	CT-410	Generative AI	3	0	3
Elective – I Data Science (to be chosen from the following)					Elective – II & III Data Science (to be chosen from the following)				
CT-263	Object Oriented Analysis and Design	2	1	3	CT-369	Business Process Analysis	3	0	3
CT-264	Programming for Artificial Intelligence	2	1	3	CT-370	Platform and Architecture for Data Science	3	0	3
CT-368	Fundamentals of Data Science	2	1	3	CT-378	Machine Learning	3	0	3
CT-266	Fundamentals of Cybersecurity	2	1	3	CT-357	Speech Processing	3	0	3
CT-267	Fundamentals of Game Development	2	1	3					
Elective – IV Data Science (to be chosen from the following)					Elective – V Data Science (to be chosen from the following)				
CT-466	Artificial Neural Networks	3	0	3	CT-468	Deep Learning	3	0	3
CT-403	Blockchain Technologies	2	1	3	CT-473	Cloud Computing	3	0	3
CT-475	Privacy Preservation	3	0	3	CT-474	Text Mining	3	0	3

THIRD YEAR (Specialisation: Cyber Security)

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
##-###	Cyber Security Elective I	2	1	3	##-###	Cyber Security Elective III	3	0	3
##-###	Cyber Security Elective II	3	0	3	MG-482	Organisational Behaviour	3	0	3
CT-363	Design and Analysis of Algorithms	3	0	3	CT-361	Artificial Intelligence and Expert Systems	3	1	4
CT-365	Software Engineering	3	0	3	CT-353	Operating Systems	3	1	4
CT-476	Information Assurance	3	0	3	CT-376	Computer Communication Networks	3	1	4
CT-355	Information Security	3	0	3	EA/ES-###	Foreign Language - I			NC

FINAL YEAR (Specialisation: Cyber Security)

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
CT-499	Computer Science Project*	0	3	3	CT-499	Computer Science Project	0	3	3
##-###	Cyber Security Elective IV	3	0	3	##-###	Cyber Security Elective V	3	0	3
CT-486	Network and Information Security	3	1	4	CT-477	Secure Software Design and Development	3	1	4
CS-428	Parallel and Distributed Computing	3	1	4	MG-481	Entrepreneurship	3	0	3
CT-371	Vulnerability Assessment and Reverse Engineering	3	1	4	CT-478	Digital Forensics	2	1	3
EA/ES-###	Foreign Language - II			NC					
Elective – I Cyber Security (to be chosen from the following)					Elective – II & III Cyber Security (to be chosen from the following)				
CT-263	Object Oriented Analysis and Design	2	1	3	CT-374	Cybersecurity Laws and Regulations	3	0	3
CT-264	Programming for Artificial Intelligence	2	1	3	CT-375	Cryptography and Cryptanalysis	3	0	3
CT-368	Fundamentals of Data Science	2	1	3	CT-372	Wireless and Mobile Security	3	0	3
CT-266	Fundamentals of Cybersecurity	2	1	3	CT-373	Penetration Testing	3	0	3
CT-267	Fundamentals of Game Development	2	1	3					
Elective – IV Cyber Security (to be chosen from the following)					Elective – V Cyber Security (to be chosen from the following)				
CT-479	Hardware Security	3	0	3	CT-480	Malware Analysis	3	0	3
CT-403	Blockchain Technologies	2	1	3	CT-483	Quantum Security	3	0	3
CT-482	Embedded Systems Security	3	0	3					



THIRD YEAR (Specialisation: Gaming and Animation)

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
##-###	Gaming and Animation Elective I	3 0 3	##-###	Gaming and Animation Elective III	3 0 3
##-###	Gaming and Animation Elective II	2 1 3	CT-353	Operating Systems	3 1 4
CT-379	Game Programming	3 1 4	CT-376	Computer Communication Networks	3 1 4
CT-363	Design and Analysis of Algorithms	3 0 3	CT-382	Game Design and Development	3 1 4
CT-365	Software Engineering	3 0 3	CT-383	Design of AR and VR Applications	1 2 3
CT-380	Regulations and Ethics in Gaming Industry	2 0 2	EA/ES-###	Foreign Language - I	NC

FINAL YEAR (Specialisation: Gaming and Animation)

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
CT-499	Computer Science Project*	0 3 3	CT-499	Computer Science Project	0 3 3
##-###	Gaming and Animation Elective IV	3 0 3	##-###	Gaming and Animation Elective V	3 0 3
CT-361	Artificial Intelligence and Expert Systems	3 1 4	CT-404	Motion Capture and Digital Animation	3 1 4
CT-409	Mobile Application Development	2 1 3	CS-428	Parallel and Distributed Computing	3 1 4
CT-486	Network and Information Security	3 1 4	MG-481	Entrepreneurship	3 0 3
EA/ES-###	Foreign Language - II	NC			

Elective – I Gaming and Animation (to be chosen from the following)

Elective – II & III Gaming and Animation (to be chosen from the following)

CT-263	Object Oriented Analysis and Design	2 1 3	CT-384	Graphics Design	2 1 3
CT-264	Programming for Artificial Intelligence	2 1 3	CT-381	Modeling and Animation	1 2 3
CT-368	Fundamentals of Data Science	2 1 3	CT-364	Theory of Automata and Formal Languages	3 0 3
CT-266	Fundamentals of Cybersecurity	2 1 3	CT-385	Art for Games	2 1 3
CT-267	Fundamentals of Game Development	2 1 3	CT-386	Storyboarding and Previsualization	3 0 3
			CT-387	Video Games and Creative Writing	3 0 3

Elective – IV Gaming and Animation (to be chosen from the following)

Elective – V Gaming and Animation (to be chosen from the following)

CT-401	Web 3D Programming	2 1 3	CT-406	Metaverse and its Applications	2 1 3
CT-402	Multicore and GPU Programming	2 1 3	CT-407	Human Computer Interaction	3 0 3
CT-403	Blockchain Technologies	2 1 3	CT-408	Interactive Games and Audio	3 0 3
CT-405	Software Security	2 1 3			





3.2.2 Textile Sciences

FIRST YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
TE-111	Textile Chemistry	3	1	4	TE-211	Textile Yarn Manufacturing Processes	3	1	4
ME-110	Basic Mechanical Engineering	2	0	2	MT-114	Calculus	3	0	3
EA-114	Functional English	2	0	2	ES-105	Pakistan Studies OR	2	0	2
TS-119	Introduction to Textiles	2	0	2	ES-127	Pakistan Studies (for foreigners)			
TE-234	Polymer & Fibre Science	2	1	3	PH-122	Applied Physics	3	1	4
ES-205	Islamic Studies OR	2	0	2	EA-115	Academic Reading and Writing	3	0	3
ES-209	Ethical Behaviour (for non muslims)								
MT-100	Introduction to Mathematics	-	-	NC					

SECOND YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
IM-207	Computer Programming & Drafting	2	1	3	MF-303	Applied Economics for Engineers	3	0	3
TS-209	Colour Science	2	1	3	TS-364	Knitting Technology	3	1	4
TS-341	Advanced Yarn Production Processes	3	1	4	TS-480	Technical Textiles	3	0	3
TE-322	Textile Fabric Manufacturing Processes	3	1	4	TS-245	Pre-treatment in Textiles	3	1	4
MT-225	Linear Algebra & Ordinary Differential Equations	3	0	3	TS-243	Textile Testing-I	2	1	3
					EA-200	Community Service	-	-	NC

THIRD YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
TS-465	Advanced Febric Manufacturing Techniques	3	0	3	TE-318	Textile & Environment	2	0	2
TE-307	Utilities for Textile Industry	3	1	4	TE-453	Garment Manufacturing	3	0	3
TS-356	Textile Dyeing	3	1	4	TS-358	Textile Printing	3	1	4
TS-357	CAD/CAM in Apparel Industry	3	1	4	TS-371	Textile Testing-II	2	1	3
EA-304	Business Communication & Ethics	3	0	3	TS-359	Denim Manufacturing Process	3	0	3
					EA/ES-###	Foreign Language-I	-	-	NC

FINAL YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
##-###	Elective-1	3	1	4	##-###	Elective-2	3	1	4
TE-452	Textile Finishing	3	1	4	MG-481	Entrepreneurship	3	0	3
TE-305	Quality Control in Textiles	2	0	2	TE-454	Textile Merchandizing	3	0	3
TS-458	Project*	0	3	3	TE-406	Textile Production Management	3	0	3
MG-482	Organizational Behaviour	3	0	3	TS-458	Project	0	3	3
EA/ES-###	Foreign Language-II	-	-	NC					

Elective-I (to be chosen from the following)

Elective-II (to be chosen from the following)

TE-455 Advanced Garment Manufacturing Process
TS-460 Smart Textiles
TS-462 Textile Composites

TS-456 Industrial Engineering in Apparel
TS-459 Protective Textiles
TS-457 Geo Textiles
TS-461 Fashion Designing

* Duration one academic year: Requires literature survey and preliminary work during this Semester



3.2.3 Development Studies

FIRST YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
DS-131	Concept in Development Studies	3 0 3	DS-162	Sociology of Development	3 0 3
DS-141	Communication Skills for Development-I	2 2 4	MT-256	Macroeconomics	3 0 3
MT-253	Microeconomics	3 0 3	DS-143	Computer Applications in Development-I	1 2 3
EA-104	Functional English	3 0 3	DS-142	Communication Skills for Development-II	2 2 4
DS-104	Introduction to Sociology	3 0 3	DS-103	Introduction to Accounting	3 0 3
			ES-105	Pakistan Studies OR	2 0 2
			ES-127	Pakistan Studies (for foreigners)	

SECOND YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
DS-241	Introduction to Research Methodology-I	2 2 4	DS-245	Statistical Applications in Development-II	2 1 3
DS-231	Theory and Practice in Development Work	1 2 3	DS-246	Participatory Development	2 1 3
DS-243	Computer Applications in Development-II	1 2 3	DS-251	Theory and Management of Organisations	3 0 3
DS-244	Statistical Applications in Development-I	2 1 3	DS-242	Introduction to Research Methodology-II	2 2 4
DS-271	Development Economics	3 0 3	DS-203	Human Development	3 0 3
			ES-205	Islamic Studies OR	2 0 2
			ES-209	Ethical Behaviour (for non muslims)	
			EA-200	Community Service	- - NC

THIRD YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
###-###	Elective-I	3 0 3	DS-306	Public Administration	3 0 3
DS-316	Gender and Development	3 0 3	DS-334	Rural Planning and Development	2 1 3
DS-331	Development Planning Workshop-I	1 2 3	DS-332	Development Planning Workshop-II	1 2 3
DS-303	Legal Issues in Development	3 0 3	DS-371	Political Economy	3 0 3
DS-333	Urban Planning and Development	2 1 3	###-###	Elective-II	3 0 3
DS-341	Mapping Applications in Planning and Development	1 2 3	EA/ES-###	Foreign Language-I	- - NC

FINAL YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
DS-430	Development Studies Project*	0 3 3	DS-408	Sustainability in Development	3 0 3
DS-431	Development Planning Workshop-III	1 2 3	DS-410	Development Planning in Pakistan	3 0 3
DS-404	Entrepreneurship	3 0 3	DS-430	Development Studies Project	0 3 3
DS-406	Environmental Issues in Development	3 0 3	DS-471	Microfinance	3 0 3
###-###	Elective-III	3 0 3	###-###	Elective-IV	3 0 3
EA/ES-###	Foreign Language-II	- - NC			

Elective-I & II Courses (to be chosen from the following)

DS-310	Budgeting in Development Project
DS-356	Development Project Planning and Management
DS-312	Public Health
DS-314	Taraqiati Sargarmiyon Main Urdu Ka Istemal (Usage of Urdu in Development)

Elective-III & IV Courses (to be chosen from the following)

DS-419	Case Studies in Development Project
DS-421	Corporate Social Responsibility and Application in Development
DS-422	Case Studies in Agricultural Development
DS-475	Public Finance
DS-476	Migration and Development

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.2.4 Computational Finance

FIRST YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
MT-151	Calculus-I	3 0 3	MT-152	Calculus-II	3 0 3
MT-153	Principles of Economics	3 0 3	MT-255	Introduction to Mathematical Finance	3 0 3
EA-104	Functional English	3 0 3	CT-157	Data Structure Algorithm & Application	3 1 4
MT-155	Introduction to Financial Accounting	3 0 3	MT-156	Discrete Mathematics	3 0 3
ES-205/	Islamic Studies OR	2 0 2	ES-105	Pakistan Studies OR	2 0 2
ES-209	Ethical Behavior (Non-Muslim)		ES-127	Pakistan Studies (for Foreigners)	
CT-153	Programming Languages	2 1 3	EC-202	Cost Accounting	3 0 3

SECOND YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
MT-272	Linear Algebra & Geometry	3 0 3	MT-257	Stochastic Calculus	3 0 3
MT-251	Multivariate Calculus	4 0 4	MT-254	Statistical Inference	3 0 3
MT-252	Introduction to Probability & Statistics	3 1 4	MT-154	Computer Applications in Finance	1 2 3
EA-201	Oral Communications	2 1 3	MT-227	Differential Equations	3 0 3
MT-253	Microeconomics	3 0 3	MT-256	Macroeconomics	3 0 3
			EA-200	Community Service	- - NC

THIRD YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
MT-351	Operations Research	3 0 3	MT-442	Numerical Methods	3 0 3
MT-352	Financial Management	3 0 3	SE-307	E-Commerce	3 1 4
MT-353	Discrete-Time Finance	3 0 3	MT-355	Financial Risk Management	3 0 3
MT-354	Financial Derivatives	3 0 3	MT-356	Stochastic Models in Finance	3 0 3
EA-301	Business and Organizational Communications	3 0 3	EA-311	Logic & Critical Thinking	3 0 3
			EA/ES-###	Foreign Language-I	- - NC

FINAL YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
MG-481	Entrepreneurship	3 0 3	MT-455	Econometrics	3 0 3
MT-451	Continuous-Time Finance	3 0 3	MT-456	Financial Engineering	3 0 3
##-###	Elective-1	3 0 3	##-###	Elective-3	3 0 3
##-###	Elective-2	3 0 3	##-###	Elective-4	3 0 3
MT-460	Computational Finance Project*	0 3 3	MT-460	Computational Finance Project	0 3 3
EA/ES-###	Foreign Language-II	- - NC			

Elective Courses (to be chosen from the following)

MT-452	Financial Modelling	3 0 3	MT-458	Islamic Banking & Financial System	3 0 3
MT-453	Organizational Design and Implementation	3 0 3	MT-459	Actuarial Science	3 0 3
MT-454	Fuzzy Sets and Fuzzy Logic	3 0 3	MT-461	Financial Modelling and Business Valuation	2 1 3
MT-457	Numerical Computing in Finance	3 0 3			

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.2.5 Physics

FIRST YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
PH-101	Mechanics & Properties of Matter	3 0 3	PH-104	Waves & Oscillations	2 0 2
PH-102	Heat & Thermodynamics	2 0 2	PH-105	Electricity & Magnetism	3 0 3
PH-103	Physics Lab-I	0 1 1	PH-106	Physics Lab-II	0 1 1
ES-105	Pakistan Studies OR	2 0 2	CY-122	General Chemistry	2 1 3
ES-127	Pakistan Studies(for Foreigners)		MT-227	Differential Equations	3 0 3
CT-174	Fundamentals of Information Technology	2 1 3	CT-175	Programming Fundamentals	3 1 4
MT-173	Calculus	3 0 3	ES-205	Islamic Studies OR	2 0 2
EA-104	Functional English	3 0 3	ES-209	Ethical Behaviour (for Non-Muslims)	
MT-100	Introduction to Mathematics (For Pre-Medical students)	- - NC			

SECOND YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
PH-202	Modern Physics	3 0 3	PH-205	Classical Mechanics	3 0 3
PH-207	Optics and Laser	3 0 3	PH-204	Introduction to Material Science	3 0 3
MT-272	Linear Algebra & Geometry	3 0 3	PH-203	Physics Lab-III	0 1 1
EL-232	Electronics	3 1 4	MT-331	Probability & Statistics	3 0 3
CT-262	Introduction to Artificial Intelligence	2 1 3	EA-214	Academic Writing	3 0 3
			EL-238	Digital Electronics	3 1 4
			EA-200	Community Service	- - NC

THIRD YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
PH-301	Quantum Mechanics-I	3 0 3	PH-307	Mathematical Physics-II	3 0 3
PH-303	Mathematical Physics-I	3 0 3	PH-309	Electromagnetic Theory-II	3 0 3
PH-304	Electromagnetic Theory-I	3 0 3	PH-311	Physics Lab-V	0 1 1
PH-310	Solid State Physics-I	3 0 3	PH-403	Solid State Physics-II	3 0 3
PH-206	Physics Lab-IV	0 1 1	PH-415	Statistical Mechanics	2 0 2
EA-301	Business & Organizational Communication	3 0 3	MG-110	Fundamentals of Management	2 0 2
			EA/ES-###	Foreign Language-I	- - NC

FINAL YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
PH-308	Quantum Mechanics-II	3 0 3	PH-407	Physics Project	0 3 3
PH-312	Physics Lab-VI	0 1 1	##-###	Elective-2	3 0 3
PH-407	Physics Project*	0 3 3	##-###	Elective-3	3 0 3
PH-409	Atomic & Molecular Physics	2 0 2	##-###	Elective-4	3 0 3
PH-417	Nuclear Physics	2 0 2	MG-481	Entrepreneurship	3 0 3
PH-418	Computational Physics	3 0 3			
##-###	Elective-1	3 0 3			
EA/ES-###	Foreign Language-II	- - NC			

Elective Courses (to be chosen from the following)

MY-402	Advanced Materials	3 0 3	PH-424	Essentials of Health Physics	3 0 3
PH-313	Cosmology and Theory of Relativity	3 0 3	PH-425	Microwave Systems	3 0 3
PH-411	Applications of Space Physics	3 0 3	PH-426	Essentials of Quantum Field Theory	3 0 3
PH-419	Fundamentals of Medical Physics	3 0 3	PH-427	Dielectric Materials	3 0 3
PH-420	Nano Science and Nanotechnology	3 0 3	PH-428	Renewable Energy Sources	3 0 3
PH-421	Vacuum Science	3 0 3	PH-429	Environmental Physics	3 0 3
PH-422	Plasma Physics	3 0 3	PH-430	Optoelectronic Devices	3 0 3
PH-423	Surface Science and Applications	3 0 3			

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.2.6 Industrial Chemistry

FIRST YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
CY-113	Inorganic Chemistry-I	3 0 3	CY-120	Analytical Chemistry-I	3 0 3
CY-114	Organic Chemistry-I	3 0 3	CY-117	Physical Chemistry-I	3 0 3
CY-118	Industrial Chemistry Lab-I	0 1 1	CY-119	Industrial Chemistry Lab-II	0 1 1
EA-104	Functional English	3 0 3	EE-119	Fundamentals of Electrical Engineering	3 1 4
PH-123	General Physics-I	2 1 3	MT-173	Calculus	3 0 3
MT-100	Introduction to Mathematics (for Pre-Medical)	- - NC	PH-124	General Physics-II	2 1 3
CT-158	Fundamental of Information Technology	2 0 2			
ES-105	Pakistan Studies OR	2 0 2			
ES-127	Pakistan Studies (Foreigners)				

SECOND YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
CY-205	Inorganic Chemistry-II	3 0 3	CY-209	Analytical Chemistry-II	3 0 3
CY-208	Organic Chemistry-II	3 0 3	CY-210	Physical Chemistry-II	3 0 3
CY-206	Industrial Chemistry Lab-III	0 1 1	CY-207	Industrial Chemistry Lab-IV	0 1 1
ES-205	Islamic Studies OR	2 0 2	EA-201	Oral Communication	2 1 3
ES-209	Ethical Behavior (for Non-Muslim)		CH-202	Fluid Mechanics-I	3 1 4
MT-223	Ordinar Differential Equations & Fourier Series	3 0 3	EL-102	Basic Electronics	3 1 4
MT-331	Probability & Statistics	3 0 3	EA-200	Community Service	- - NC
CT-153	Programming Languages	2 1 3			

THIRD YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
EA-301	Business & Organizational Communication	3 0 3	CY-404	Seperation Techniques	3 0 3
CH-206	Thermodynamics	3 1 4	CY-303	Reaction Kinetics	3 0 3
CY-312	Spectroscopy	3 0 3	CY-308	Unit Processes	3 0 3
CY-313	Polymer Science	3 0 3	CY-311	Industrial Chemistry Lab VI	0 1 1
CY-305	Industrial Stoichiometry	3 0 3	CY-314	Natural Products	3 0 3
CY-310	Industrial Chemistry Lab V	0 1 1	CY-315	Nuclear & Radiation Chemistry	3 0 3
			CH-203	Chemical Process Industries	3 0 3
			EA/ES-###	Foreign Language-I	- - NC

FINAL YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
CY-402	Environmental Chemistry	3 0 3	CY-417	Quality Assurance for Chemists	3 0 3
CH-405	Industrial Safety & Maintenance Management	2 1 3	##-###	Elective-3	3/2 0/1 3
##-###	Elective-1	3/2 0/1 3	##-###	Elective-4	3/2 0/1 3
##-###	Elective-2	3/2 0/1 3	CY-415	Industrial Chemistry Project	0 3 3
CY-415	Industrial Chemistry Project*	0 3 3			
EA/ES-###	Foreign Language-II	- - NC			

Elective Courses (to be chosen from the following)

CH-406	Petroleum Refining & Petrochemicals	3 0 3	CY-413	Surfactants and Cosmetics	3 0 3
CY-403	Beverage Technology	3 0 3	CY-414	Pharmaceutical Chemistry	3 0 3
CY-406	Fat & Oil Processing	3 0 3	CH-407	Industrial Organization & Management	2 1 3
CY-408	Polymer Technology	3 0 3	CY-416	Nanotechnology	3 0 3
CY-411	Surface Coatings	3 0 3			

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.2.7 English Linguistics

FIRST YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
EA-104	Functional English	3 0 3	EA-115	Academic Reading & Writing	3 0 3
ES-105	Pakistan Studies OR	2 0 2	ES-119	Islamic Studies OR	2 0 2
ES-127	Pakistan Studies (for Foreigners)		ES-209	Ethical Behaviour (for non muslims)	
EA-116	Anthropology	3 0 3	CT-173	Introduction to Computer Applications	2 1 3
EA-117	Foundation of Education	3 0 3	EA-118	Media Studies	3 0 3
EA-120	Introduction to English Litreture-I	3 0 3	EA-122	History of English Literature-I	3 0 3
EA-121	Introduction to Linguistics	3 0 3	EA-123	Phonetics & Phonology	3 0 3

SECOND YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
EA-201	Oral Communication	2 1 3	EA-202	Business Communication	3 0 3
EA-210	Philosophy	3 0 3	EA-203	Organizational Behaviour	3 0 3
EC-211	Principles of Economics	3 0 3	EA-204	Human Rights & Citizenship	3 0 3
EA-217	Visionary Discourse	3 0 3	EA-213	History of English Literature-II	3 0 3
EA-211	Morphology & Syntax-I	3 0 3	EA-215	Semantics	3 0 3
EA-212	Introduction to English Literature-II	3 0 3	EA-200	Community Service	- - NC

THIRD YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
MT-337	Introduction to Statistics	3 0 3	EA-319	Introduction to Research	3 0 3
EA-305	Morphology & Syntax-II	3 0 3	EA-308	Lexical Studies	3 0 3
EA-306	Sociolinguistics	3 0 3	EA-309	Discourse Analysis	3 0 3
EA-307	Pedagogical Grammar	3 0 3	EA-310	Psycholinguistics	3 0 3
##-###	Elective-I	3 0 3	MG-317	Human Resource Management	3 0 3
##-###	Elective-II	3 0 3	##-###	Elective-III	3 0 3
			EA/ES-###	Foreign Language-I	- - NC

FINAL YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
EA-402	Research Methods in Linguistics	3 0 3	EA-406	Stylistics	3 0 3
EA-411	Second Language Acquisition	3 0 3	EA-407	Language, Culture & Identity	3 0 3
EA-412	Language Teaching Methodologies	3 0 3	EA-408	Genre Analysis	3 0 3
EA-418	Pragmatics	3 0 3	EA-421	Syllabus Designing & Testing	3 0 3
EA-401	Project*	0 3 3	EA-401	Project	0 3 3
EA/ES-###	Foreign Language-II	- - NC			

Elective Courses (to be chosen from the following)

EA-312	Translation Studies	EA-316	English for Specific Purposes
EA-313	Media Discourse Analysis	EA-317	Language & Gender
EA-314	World Englishes	EA-318	Anthropological Studies
EA-315	Language in Education		

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.2.8 Economics & Finance

FIRST YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EC-101	Microeconomics-I	3	0	3	EC-103	Macroeconomics-I	3	0	3
MT-100	Introduction to Mathematics	-	-	NC	EC-104	Financial Accounting	3	0	3
EC-102	Principles of Accounting	3	0	3	EC-105	Information Technology in Business	2	1	3
CT-173	Introduction to Computer Applications	2	1	3		Economics			
EA-104	Functional English	3	0	3	EA-115	Academic Reading & Writing	3	0	3
ES-105	Pakistan Studies OR	2	0	2	EC-106	Principles of Management	3	0	3
ES-127	Pakistan Studies for Foreigners								

SECOND YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit		Hours	Course Code	Course Title	Credit		Hours
		Th	Pr	Total			Th	Pr	Total
EC-201	Microeconomics-II	3	0	3	EC-204	Macroeconomics-II	3	0	3
MT-230	Statistics & Probability	3	0	3	EC-205	Development Economics	3	0	3
EC-202	Cost Accounting	3	0	3	EC-206	Economy of Pakistan	3	0	3
EC-203	Computer Application to Business & Finance	2	1	3	MT-231	Statistics Inference	3	0	3
EA-201	Oral Communication	2	1	3	EC-207	Managerial Accounting	3	0	3
ES-205	Islamic Studies OR	2	0	2	EC-208	Introduction to Business Finance	3	0	3
ES-209	Ethical Behavior (for Non-Muslim)				EA-200	Community Service	-	-	NC

THIRD YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EC-301	Political Economics	3	0	3	EC-305	Comparative Economic System	3	0	3
EC-302	Mathematical Economics-I	3	0	3	EC-306	Mathematical Economics-II	3	0	3
EC-303	Econometrics-I	3	0	3	EC-307	Econometric-II	3	0	3
EC-304	Money and Banking	3	0	3	EC-308	Business Research Methods	3	0	3
EA-301	Business and Organizational Communication	3	0	3	EC-309	Financial Management	3	0	3
					EA/ES-###	Foreign Language-I	-	-	NC

FINAL YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EC-401	Public Finance	3	0	3	EC-404	Islamic Economics	3	0	3
EC-402	International Trade Theory	3	0	3	###-###	Elective-III (Economics)	3	0	3
EC-403	Applied Economics	2	1	3	###-###	Elective-IV (Finance)	3	0	3
###-###	Elective-I (Economics)	3/2	0/1	3	###-###	Elective-V (Economics / Finance)	3	0	3
###-###	Elective-II (Finance)	3	0	3	EC-405	Project	0	3	3
EC-405	Project*	0	3	3					
EA/ES-###	Foreign Language-II	-	-	NC					

Inter-Disciplinary Elective (to be chosen from the following)

Economics					Finance				
EC-417	Studies of Urban Economics	3	0	3	EC-411	International Finance	3	0	3
EC-407	Industrial Economics	3	0	3	EC-412	Corporate Finance	3	0	3
EC-408	Transport Economics	3	0	3	EC-413	Project Appraisal & Investment Analysis	3	0	3
EC-409	Environmental Economics	3	0	3	EC-414	Behavioural Finance	3	0	3
EC-410	Labor Economics	3	0	3	EC-416	Audit and Assurance	3	0	3
EC-415	Time Series analysis	2	1	3	EC-418	Islamic Banking and Finance	3	0	3

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.2.9 Management Sciences

FIRST YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EA-104	Functional English	3	0	3	EC-104	Financial Accounting	3	0	3
CT-158	Fundamental of I.T.	2	0	2	MT-153	Principles of Economics	3	0	3
MT-113	Business Mathematics	3	0	3	MG-112	Introduction to Sociology	3	0	3
MG-110	Fundamentals of Management	3	0	3	MG-114	Introduction to Business	3	0	3
MG-111	Principles of Marketing	3	0	3	ES-205	Islamic Studies OR	2	0	2
ES-105	Pakistan Studies OR	3	0	3	ES-209	Ethical Behaviour (for Non-Muslims)			
ES-127	Pakistan Studies (for foreigners)								

SECOND YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EA-201	Oral Communications	2	1	3	MT-214	Applied Statistics	3	0	3
MG-211	Strategic Management	3	0	3	MG-214	Human Resource Management	3	0	3
MG-212	Technology Management	3	0	3	MG-215	Business Law & Policy	3	0	3
MG-213	Introduction to Business Finance	3	0	3	MG-216	Managerial Accounting	3	0	3
EC-101	Microeconomics-I	3	0	3	EC-103	Macroeconomics-I	3	0	3
CT-153	Programming Languages	2	1	3	EA-200	Community Service	-	-	NC

THIRD YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EA-301	Business & Organizational Communication	3	0	3	MT-355	Financial Risk Management	3	0	3
MG-311	Product & Brand Management	3	0	3	MG-317	Operations Research	2	1	3
MG-312	Business Research Methods	3	0	3	MG-315	Business & Economic Forecasting	2	1	3
MG-313	Business Ethics & Corporate Social Responsibility	3	0	3	MG-481	Entrepreneurship	3	0	3
IM-416	Management Information System	2	1	3	MG-318	Consumer Behaviour	3	0	3
IM-303	Production Management	3	1	4	EA/ES-###	Foreign Language-I	-	-	NC

FINAL YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
MG-###	Specialization-1	3	0	3	MG-###	Specialization-6	3	0	3
MG-###	Specialization-2	3	0	3	MG-###	Specialization-7	3	0	3
MG-###	Specialization-3	3	0	3	CT-461	E-Commerce	3	1	4
MG-###	Specialization-4	3	0	3	MG-480	Business Process Management	2	1	3
MG-###	Specialization-5	3	0	3	MG-499	Final Year Project	0	3	3
MG-499	Final Year Project*	0	3	3					
EA/ES-###	Foreign Language-II	-	-	NC					

Supply Chain Management (to be chosen from the following)

Marketing (to be chosen from the following)

MG-450	Principles of Supply Chain Management	3	0	3	MG-460	Marketing Strategy	3	0	3
MG-451	Green Supply Chain Management	3	0	3	MG-461	Global Entrepreneurial Marketing	3	0	3
MG-452	Information Technology for SCM	3	0	3	MG-463	Corporation & Consumer Behaviour	3	0	3
MG-453	Supply Chain Inventory	3	0	3	MG-464	Personal Selling and Public Relation	3	0	3
MG-454	Supply Planning & Control Systems	3	0	3	MG-465	Trade and Consumer Promotions	3	0	3
MG-455	Business Process Simulation	3	0	3	MG-467	Strategies of Advertising	3	0	3
MG-456	Procurement Management	3	0	3	MG-468	Digital Marketing	3	0	3
					MG-469	Corporate Strategy	3	0	3
					MG-470	Public Relations	3	0	3
					MG-471	Retail Management	3	0	3
					MG-472	Sales Management	3	0	3

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.3 Bachelor of Architecture

FIRST YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
AR-101	Basic Design-I	1	3	4	AR-102	Basic Design-II	1	3	4
AR-121	Introduction to Environmental Studies	2	1	3	AR-111	Introduction to History, Theory and Culture	2	1	3
AR-143	Communications and Allied Skills-I	1	2	3	AR-144	Communication and Allied Skills-II	1	2	3
EA-104	Functional English	3	0	3	AR-151	Construction and Materials-I	1	2	3
MT-112	Mathematics for Architects	3	0	3	CE-112	Fundamentals of Statics	2	0	2
PH-114	Physics for Architects	2	0	2	ES-105/	Pakistan Studies OR	2	0	2
CY-111	Basic Chemistry for Architects	1	1	2	ES-127	Pakistan Studies (for Foreigners)			

SECOND YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
AR-201	Architectural Design-I	1	4	5	AR-202	Architectural Design-II	1	4	5
AR-211	History and Theory-I	2	1	3	AR-212	History and Theory-II	2	1	3
AR-243	Communication and Allied Skills-III	1	2	3	AR-221	Development Studies	2	1	3
AR-251	Construction and Materials-II	1	2	3	AR-231	Environmental Design and Systems-I	2	1	3
CE-113	Surveying for Architects	2	1	3	AR-244	Communication and Allied Skills-IV	1	2	3
ES-205/	Islamic Studies OR	2	0	2	CE-252	Structure for Architects-I	2	0	2
ES-209	Ethical Behaviour (for Non-Muslims)				EA-200	Community Service	-	-	NC

THIRD YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
AR-301	Architectural Design-III	1	5	6	AR-302	Architectural Design-IV	1	5	6
AR-381	Introduction to Landscape Architecture	1	2	3	AR-312	History and Theory-IV	2	1	3
AR-311	History and Theory-III	2	1	3	AR-321	Housing and Community Development	2	1	3
AR-331	Environmental Design and Systems-II	2	1	3	AR-342	Communication and Allied Skills-V	1	2	3
AR-351	Construction and Materials-III	1	2	3	AR-352	Construction and Materials-IV	1	2	3
AR-361	Introduction to Architectural Conservation	2	1	3	CE-352	Structure for Architects-II	2	0	2
					EA/ES-###	Foreign Language-I	-	-	NC

FOURTH YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
AR-401	Architectural Design-V	1	5	6	AR-402	Architectural Design-VI	1	5	6
AR-403	Introduction to Interior Design	1	2	3	AR-421	Urban Planning and Design	2	1	3
AR-411	History and Theory-V	2	1	3	AR-431	Environmental Design and Systems-III	2	1	3
AR-442	Communication and Allied Skills-VI	1	2	3	AR-461	Research Methodologies	2	1	3
AR-451	Construction and Materials-V	1	2	3	##-###	Elective	-	-	3
EA/ES-###	Foreign Language-II	-	-	NC					

FINAL YEAR

Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
AR-503	Architectural Design Project*	0	4	4	AR-503	Architectural Design Project	2	8	10
AR-522	Comprehensive Environmental Design	1	5	6	AR-561	Professional Practice	2	1	3
AR-552	Construction and Materials-VI	2	1	3					

Elective Courses (to be chosen from the following)

AR-472	Documentation Techniques in Architecture	1	2	3	AR-473	Studies in Critical Regionalism	2	1	3
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* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.4 Thar Institute of Engineering, Sciences and Technology (TIEST)

3.4.1 Civil Engineering

FIRST YEAR

Fall Semester				Spring Semester			
Course Code	Course Title	Credit	Hours	Course Code	Course Title	Credit	Hours
		Th	Pr Total			Th	Pr Total
CE-107	Engineering Drawing-I	1	2 3	CE-109	Engineering Surveying-I	2	1 3
CE-102	Statics and Dynamics	3	1 4	CE-110	Chemistry for Civil Engineers	1	1 2
CE-108	Engineering Materials	2	1 3	CE-111	Introduction to Computing for Civil Engineers	1	2 3
EE-123	Basic Electrical Engineering	2	0 2	ME-110	Basic Mechanical Engineering	2	0 2
MT-114	Calculus	3	0 3	EA-111	Functional English	2	0 2
ES-106/	Pakistan Studies OR	1	0 1	MT-221	Linear Algebra & Ordinary Differential Equations	3	0 3
ES-127	Pakistan Studies (for Foreigners)						

SECOND YEAR

Fall Semester				Spring Semester			
Course Code	Course Title	Credit	Hours	Course Code	Course Title	Credit	Hours
		Th	Pr Total			Th	Pr Total
CE-201	Engineering Surveying-II	3	1 4	CE-222	Engineering Drawing-II	1	2 3
CE-205	Mechanics of Solids-I	3	1 4	CE-219	Fluid Mechanics-I	3	1 4
CE-220	Geology for Engineers	2	1 3	CE-221	Structural Analysis-I	3	0 3
ES-205/	Islamic Studies OR	2	0 2	EA-219	Professional Ethics	2	0 2
ES-209	Ethical Behaviour (for Non-Muslims)			MT-331	Probability & Statistics	3	0 3
EA-218	Business Communication	2	1 3	CF-303	Applied Economics for Engineers	3	0 3
AR-309	Architecture and Town Planning	3	0 3	EA-200	Community Service	-	- NC

THIRD YEAR

Fall Semester				Spring Semester			
Course Code	Course Title	Credit	Hours	Course Code	Course Title	Credit	Hours
		Th	Pr Total			Th	Pr Total
CE-320	Reinforced Concrete Design-I	3	0 3	CE-323	Quantity & Cost Estimation	3	0 3
CE-321	Construction Engineering	3	0 3	CE-305	Soil Mechanics-I	3	1 4
CE-302	Transportation Engineering-I	3	1 4	CE-314	Structural Analysis-II	3	0 3
CE-319	Fluid Mechanics-II	3	1 4	CE-322	Mechanics of Solids-II	3	0 3
MT-443	Numerical Analysis	3	0 3	CE-424	Essentials in Construction Project Management	3	0 3
				EA/ES-###	Foreign Language-I	-	- NC

FINAL YEAR

Fall Semester				Spring Semester			
Course Code	Course Title	Credit	Hours	Course Code	Course Title	Credit	Hours
		Th	Pr Total			Th	Pr Total
CE-403	Soil Mechanics-II	3	1 4	###-###	Civil Engineering Elective	3/1/2	0/2/1 3
###-###	Social Sciences Elective	2	0 2	###-###	Management Sciences Elective	3	0 3
CE-418	Hydraulic and Water Resources Engineering-I	3	1 4	CE-432	Transportation Engineering-II	2	0 2
CE-420	Reinforced Concrete Design-II	3	0 3	CE-421	Design of Steel Structures	3	0 3
EN-301	Environmental Engineering-I	2	1 3	EN-401	Environmental Engineering-II	2	1 3
CE-409	Civil Engineering Project*	0	3 3	CE-409	Civil Engineering Project	0	3 3
EA/ES-###	Foreign Language-II	-	- NC				

Civil Engineering Elective Courses (to be chosen from the following)

CE-419	Applied Hydraulics	3	0 3	CE-433	Coastal and Harbour Engineering	3	0 3
CE-422	Structural Design & Drawing	3	0 3	CE-438	Hydraulics and Water Resource Engineering-II	3	0 3
CE-423	Masonry Structures	3	0 3	CN-424	Environmental Issues in Construction	3	0 3
CE-426	Building Information Modeling	1	2 3	CN-430	Disaster and Reconstruction Management	3	0 3
CE-429	Geosynthetics and their Applications	3	0 3	CE-440	Commute and Mass Transit	3	0 3
CE-431	Geoinformatics Applications	2	1 3				

Management Sciences Elective Courses (to be chosen from the following)

CN-423	Management and marketing of Construction Services	3	0 3	CE-425	Modern Aspects of Construction Project Management		
CN-432	Leadership and Human Skills in Management	3	0 3	CE-435	Construction Contract Management	3	0 3
CE-434	Procurement Management	3	0 3				

Social Sciences Elective Courses (to be chosen from the following)

CE-427	Introduction to Entrepreneurship & Opportunity Assessment	2	0 2	MG-228	Sociology and Development	2	0 2
CE-439	Engineer and Society	2	0 2	CE-441	Professional Ethics in Construction Industry	2	0 2

* Duration one academic year: Requires literature survey and preliminary work during this Semester





3.4.2 Computer Science

FIRST YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
CT-175	Programming Fundamentals	3 1 4	CS-251	Logic Design & Switching Theory	3 1 4
CT-174	Fundamentals of Information Technology	2 1 3	CT-162	Discrete Structures	3 0 3
EA-104	Functional English	3 0 3	CT-260	Object Oriented Programming	3 1 4
PH-122	Applied Physics	3 1 4	MT-171	Differential & Integral Calculus	3 0 3
ES-205	Islamic Studies OR	2 0 2	ES-105	Pakistan Studies OR	2 0 2
ES-209	Ethical Behaviour	- - -	ES-127	Pakistan Studies (for Foreigners)	- - -
MT-001	Mathematics - 1 (for Pre-Medical)	- - NC	MT-002	Mathematics - 2 (for Pre-Medical)	- - NC

SECOND YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
CT-159	Data Structure Algorithms & Applications	3 1 4	CS-252	Computer Architecture & Organisation	3 1 4
MT-227	Differential Equations	3 0 3	CT-261	Database Management Systems	3 1 4
EA-115	Academic Reading and Writing	3 0 3	EA-218	Business Communications	2 1 3
EA-219	Professional Ethics	2 0 2	EC-209	Financial & Cost Accounting	3 0 3
##-###	Elective I	2 1 3	MT-272	Linear Algebra & Geometry	3 0 3
			EA-200	Community Service	- - NC

THIRD YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
CT-365	Software Engineering	3 0 3	CT-376	Computer Communication Networks	3 1 4
CT-353	Operating Systems	3 1 4	CT-361	Artificial Intelligence & Expert Systems	3 1 4
CT-363	Design and Analysis of Algorithms	3 0 3	CT-362	Web Engineering	3 1 4
MT-331	Probability & Statistics	3 0 3	CT-367	Theory of Programming Languages	3 0 3
CT-364	Theory of Automata and Formal Languages	3 0 3	MT-442	Numerical Methods	3 0 3
			EA/ES-###	Foreign Language-I	- - NC

FINAL YEAR

Fall Semester			Spring Semester		
Course Code	Course Title	Credit Hours Th Pr Total	Course Code	Course Title	Credit Hours Th Pr Total
CT-486	Network & Information Security	3 1 4	CS-428	Parallel & Distributed Computing	3 1 4
MG-482	Organisational Behaviour	3 0 3	CT-465	Compiler Design	3 0 3
##-###	Elective II	3 0 3	MG-481	Entrepreneurship	3 0 3
##-###	Elective III	3 1 4	##-###	Elective IV	3 1 4
CT-499	Software Based Project*	0 3 3	CT-499	Software Based Project	0 3 3
EA/ES-###	Foreign Language-II	- - NC			

Elective-I (to be chosen from the following)

Elective-II (to be chosen from the following)

CT-263 Object Oriented Analysis & Design
CT-264 Programming for Artificial Intelligence
CT-368 Fundamentals of Data Science
CT-266 Fundamentals of Cybersecurity
CT-267 Fundamentals of Game Development

CT-366 E-Commerce
CT-485 Natural Language Processing
CT-464 Modeling & Simulation

Elective-III (to be chosen from the following)

Elective-IV (to be chosen from the following)

CT-352 Computer Graphics
CT-487 Visual Programming
CT-488 Distributed Computing

CT-463 Data Warehouse Mining
CT-481 Wireless Network & Mobile Computing
CT-484 Introduction to Cyber Security

* Duration one academic year: Requires literature survey and preliminary work during this Semester





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CHAPTER 4

Mode of Application for Admission





4.1 GENERAL GUIDANCE

4.1.1 The prospectus is available on NED University website at "www.neduet.edu.pk/admission".

4.1.2 Candidates shall be required to apply online for admission:

- They will be required to get the print-out of Application Form, sign it and submit along with other documents as mentioned in 4.1.4 at the time of submission of original documents.
- Candidates desirous for taking admission at Thar Institute of Engineering, Sciences and Technology (TIEST), will also be required to fill Admission Form as mentioned above. Criteria for such applicants will be the same as of NED University.
- Application processing fee of Rs. 4,700/- is required to be paid in designated branches of banks.
- Candidates may apply under more than one category through the same online admission process. Admission categories have been specified in Chapter 5.

4.1.3 Applications received in one category shall not be transferred to another category.

4.1.4 All such candidates whose name appeared in merit list and are called for admission should submit the following documents:

i. Original Documents (to be retained by the University)

- Domicile of Sindh Province
- Affidavit of non-political activities
- HSC/DAE Marks Sheet or Equivalent Marks Sheet
- Equivalence Certificate from IBCC for foreign examinations and Grade Sheets, if applicable
- Hafiz-e-Quran Certificate, if applicable
- Migration Certificate in case of having passed HSC examination from a Board other than Karachi Board

ii. Other Documents (Two Attested Photocopies)

- All the documents mentioned in para 4.1.4(i)
- SSC or DAE Examination Mark sheet or Grade Sheets and Equivalence Certificate from IBCC
- Admit Card of Pre-Admission Entry Test
- In addition, Passport Size Photographs (02 Nos.).

Original documents retained by the University will be returned after the completion or termination of the studies at this University.

Applicants are advised that they should retain sufficient number of attested photocopies of their documents/certificates as the originals are not likely to be returned during their period of study at the University.

4.1.5 Candidates for admission under following categories are required to submit documents as mentioned below in addition to those mentioned in Para 4.1.4:-

- R-6 i.e., Resident of Rural Areas of Karachi, should submit original School Leaving Certificate.
- SF-8 i.e., Real Sons / Daughters of NEDAN Life Members, should submit copy of NEDAN membership card along with the other documents.
- SF-9(a) i.e., Real Sons / Daughters of Professional Engineers of Sindh, should submit copy of Engineering Degree of the parent and proof of valid registration with Pakistan Engineering Council (PEC).
- SF-9(b) i.e., Real Sons / Daughters of Professional Architects & Planners, should submit copy of Architecture & Planners Degree of the parent and proof of valid registration with Pakistan Council of Architects and Town Planners (PCATP).
- SF-9(c) i.e., Real Sons / Daughters of Expatriate Pakistani, should submit copy of National Identity Card for Overseas Pakistanis (NICOP) along with the other documents.
- R-9 i.e., Outstanding Sportsmen, should submit sports testimonials as mentioned in Para R-9 (iv) in Chapter 5.
- Candidates having passed qualifying examination from Foreign Boards must submit relevant document(s) to establish their date of birth.
- Candidates for category R-1(f) are required to submit certificate of disability from Department of Empowerment of Persons with Disabilities (DEPD), Government of Sindh.

4.1.6 Application Form, all fee and documents attached with the Application Form shall not be returnable as per Para 8.6.

4.1.7 Incomplete applications shall not be considered.

4.1.8 The complete online application along with proof of payment of processing fee must reach to the Admission Office of the University on the date notified for the submission of Admission Form by the University in the Press and Website. Any application received after this date or found deficient in any respect will be summarily rejected. Any certificate or matter in addition to the specified requirement shall be treated as irrelevant and discarded.

4.1.9 Candidates are directed to write their names, Father Name & Date of Birth in Online Admission Application as mentioned on their SSC/Equivalent Certificate.





4.2 ELIGIBILITY CONDITIONS

4.2.1 Applicant should be domiciled in Sindh Province, except for reserved categories and category R-1(g).

4.2.2 He/She must have passed either Higher School Examination (HSC) from any authorised Board of Education in Pakistan OR an Equivalent Foreign Examination recognized as such by the University OR have appeared in any such examination and waiting for final results. In this case A-level candidates will be required to submit the A Level Grade Sheet along with IBCC Equivalency Certificate latest by Mid-January 2025. Admission of such students shall remain provisional subject to the fulfilment of Clauses 4.2.2.(b). In case of non-compliance, their admission shall be liable to be cancelled. All Candidates should fulfill the following conditions (after announcement of respective results):

- a) The year of passing the examination held should not be earlier than the three years immediately prior to submission of application.
- b) i) Each applicant should have obtained at least 60% marks in aggregate.
ii) Candidates having obtained at least 50% marks in aggregate are eligible to apply for admission in all BS programmes except in BS (CT).
iii) The applicants who has passed HSC-I examination and are waiting for HSC-II result after appearing in the respective examination shall have their application accepted provided they had obtained at least 55% marks (or 50% marks for all BS programmes except BS (CT) in HSC-I).
- c) i) For admission in any undergraduate Programme, subjects examined at the HSC or Equivalent level must include Pre-Engineering subjects of Mathematics, Physics and Chemistry.
ii) Any applicant who has passed HSC or Equivalent Examination with subjects of Mathematics, Physics, and Computer Science shall however be considered for admission only in:
a) BS in Computer Science, Management Sciences, Development Studies, English Linguistics, Computational Finance, Economics & Finance, Textile Sciences and Bachelor of Architecture without having study any additional Course.
b) All BE Programmes, subject to the study of an additional Non-Credit Course of Chemistry, will be offered by the University in the First Semester, and student must pass this course.
iii) Any applicant who has passed their HSC or Equivalent Examination with Mathematics, Statistics and Computer Science will be considered for admission only in BS in Computer Science, Management Sciences,

English Linguistics, Development Studies, Computational Finance and Economics & Finance.

- iv) Any applicant who has passed HSC Commerce or Equivalent Examination shall be considered for admission in BS Management Sciences, English Linguistics, Development Studies, and Economics & Finance only.
- v) Any applicant who has passed HSC Arts or Equivalent Examination shall be considered for admission in BS English Linguistics, Development Studies, Economics & Finance and Management Sciences only.
- vi) Any applicant who has passed HSC or Equivalent Examination with Pre-Medical subjects of Physics, Chemistry and Biology shall however be considered for admission in:
a) Allocated seats in Biomedical Engineering, BS in Computer Science, B.Arch Programme and all BS Programmes except Computational Finance.
b) Certain Engineering Programmes may be allowed (**Subject to approval from PEC**)

N.B: Admission to such candidates [as mentioned in Para 4.2.2.c(ii), (iii) (iv), (v) & (vi)] shall only be offered in above disciplines subject to availability of seats in these disciplines. Such candidates, if admitted, shall however, be conditionally considered for Change of Discipline after First Year.

vi) Any applicant who has passed DAE in relevant discipline from SBTE shall be considered for admission against allocated seats as prescribed by PEC, in certain categories.

- N.B:**
- i) An applicant who has completed his/her HSC I & II examination from two different boards at the time of admission shall be considered for admission on the basis of HSC-I Examination Board.
 - ii) No students, already enrolled in this University can be considered for the admission again until the current enrolment is cancelled OR prior permission is obtained from the Competent Authority.

4.2.3 An applicant should have passed Pre-admission Entry Test of this University with at least 50% marks with subject of Physics / Statistics, Chemistry / Computer Science and Mathematics / Biology depending upon their respective background in HSC (or equivalent). Similarly, applications with Commerce / Arts background will be required to qualify the test with relevant subjects.

N.B: Past years' Pre-Admission Entry Test results will be not be considered for current year admissions.

4.2.4 Any such nominee applying under category R-11(a) or R-11(b) or R-12(a) or R-12(b) or R-12(c) or R-12(d) or R-12(e) or R-13(a) or R-13(b) or R-13(c) or R-13(d) may produce documentary evidence of having passed Pre-Admission Entry Test conducted by any university / authority acceptable as such by this University.





4.3 EQUIVALENCE OF FOREIGN EXAMINATIONS

- 4.3.1 An applicant who has passed A-Level or any two-year Pre-University Examination at 11th and 12th grades or 12th and 13th / OAC Grades (or similar Examinations) with subjects of Physics/Statistics, Chemistry/Computer Science and Mathematics/Biology or Commerce & Arts must submit an Equivalence Certificate (obtained from Inter-Board Committee of Chairmen) along with his/her Application Form for admission. All such candidates will be dealt for admission as per clause 4.2.
- 4.3.2 All such applicants having passed / appeared in any foreign examination as mentioned in 4.3.1 must also submit an Equivalence Certificate (obtained from Inter-Board Committee of Chairmen) of their earlier qualification i.e. O-level / 10th Grade along with his/her Application Form for admission.

4.4 DETERMINATION OF MERIT POSITION

- 4.4.1 (a)(i) The overall merit in respect of candidates for admission shall be determined according to the following criteria:

**Merit Score = 50% (HSC Part I/ O-level Marks/ Equivalent)*
+ 50 % weightage to Entry Test**

* For candidates already completed HSC/A-level/Equivalent examinations will be dealt as per policy

- (ii) Candidates having appeared in any Equivalent Examination / Foreign Examination including A-Level and 12th Grade shall have their O-level / 10th Grade equivalent marks (As mentioned in respective IBCC Equivalency Certificate) to be considered with 50% weightage in place of HSC-I.
- (iii) Candidates having passed their HSC/Equivalent Examination during earlier years will have 50% weightage to their complete result of HSC / Equivalent Examination.
- (iv) Entry Test Marks indicate marks obtained in University Pre-Admission Entry Test or equivalent marks as obtained in any other tests as recognized by NED University.
- 4.4.1 (b) The admission offered based upon above merit shall remain provisional till the submission and subsequent verification (from relevant authorities) of final HSC or Equivalent Mark Sheet or IBCC Equivalency Certificate (for foreign exams only) with minimum 60 % marks obtained (55% marks for certain disciplines). In any case the final Mark Sheet for HSC must be submitted before 30th December, 2024 as otherwise the admission will be liable to be cancelled.
- 4.4.2 For applicants who have passed their qualifying examination in 2021, 2022 or in 2023 their merit positions for the purpose of admission shall be determined after deduction of 0.91% marks from the total obtained in their respective qualifying examinations. The same deduction shall apply in case of improvement (Including applicants who have taken improvement examination in the same calendar year as that of the HSC / Qualifying Examinations).

- 4.4.3 In case of tie for merit position in the selection for admission, the tie shall be resolved by the following criteria:

- a) Aggregate marks obtained in NED University Pre-Admission Entry Test shall be the criterion for resolving the merit.
- b) Any further tie shall be resolved by considering the following criteria:
- i) For applicants with Pre-Engineering / Pre-Medical/Computer Science: marks obtained in sections of Mathematics (or Biology as the case may be), then Physics/Statistics and then Chemistry/ Computer Science of NED University Pre-Admission Entry Test.
- ii) For applicants with Commerce: marks obtained in sections of Accounting, then Economics and then Business Mathematics of NED University Pre-Admission Entry Test
- iii) For applicants with Arts: marks obtained in sections of English (Combination of Vocabulary & Grammar and Reading Comprehension) and then General Knowledge and then Mathematics (General) of NED University Pre-Admission Entry Test.

4.5 MARKS FOR HAFIZ-E-QURAN

Any applicant who is Hafiz-e-Quran and has passed NED entry test shall have 1.82% of marks added to the HSC / equivalent marks obtained by the candidate. He/She shall have to provide the original Sanad of Hafiz-e-Quran from Wafaq-ul-Madaris and be prepared to appear and qualify in a Hafiz-e-Quran test as notified by the University.

4.6 REJECTION OF APPLICATION

- 4.6.1 The Vice Chancellor of the University will be the competent authority to reject any application and to cancel admission without assigning any reason.
- 4.6.2 The application shall be rejected summarily in case the applicant is found guilty of any suppression or misrepresentation of material facts at any stage. The Vice Chancellor can further debar him from seeking admission in the University and its affiliated colleges.

4.7 DISPLAY OF MERIT LIST

The Merit list for each category under Regular and Self Finance schemes will be notified and displayed on the University Website.





CHAPTER 5

Admission Category





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Category	CE	CE (UE)	PE	CE (CN)	ME	TE	IM	AU	EE	TC	CS	EL	CH	MY	MM	PP	FD	BM	SE	CT	PH	IC	CF	DS	TS	MG	B. Arch	EG	EC	TCT	TCE	Total
R-4(a)	A-Level (Pre-Engineering/Computer Science)																														120	
	2	4	3	2	10	4	5	1	8	3	2	5	6	1	2	4	2	5	7	10	4	4	5	4	5	4	2	2	2	1		1
R-4(c)	12th Grade & Equivalent (Pre-Engineering/Pre-Medical*/Computer Science/Commerce/Arts)																														21	
	1	1	0	0	1	1	1	0	1	1	1	0	2	1	1	0	1	1	1	2	1	0	1	0	0	1	0	1	0	0		0
R-4(d)	A-Level (Pre-Medical*)																														30	
	1	0	0	0	0	2	0	0	0	0	2	0	1	0	0	0	2	4	2	6	0	0	2	1	0	2	2	1	0	2		0
R-4(e)	A-Level (Commerce)																														4	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	0		0
R-4(f)	A-Levels (Arts)																														2	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0		0
R-5	HSC(Pre-Engineering/Pre-Medical*/Computer Science/Commerce/Arts) from Board other than Karachi, Aga Khan Hyderabad, Mirpurkhas, Sukkur, Larkana, Nawabshah, Ziauddin , Federal & Foreign Exam																														11	
	1	1	1	0	1	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	0	0	1		0
R-6	Rural Areas of City Division Karachi HSC(Pre-Engineering/Pre-Medical/Computer Science/Commerce/Arts) from Board of Intermediate Education, Karachi																														6	
	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0		0
R-7(a)	Real Son/Daughter of NED University Teachers																														35	
	1	2	1	0	2	1	2	0	2	1	1	1	1	1	1	1	1	2	1	5	0	1	1	0	1	1	1	1	1	0		1
R-7(b)	Real Son/Daughter of NED University Non-Teaching Staff																														34	
	1	1	1	0	2	2	2	0	2	1	1	1	1	1	1	1	1	1	1	5	1	0	1	1	1	1	1	1	1	0		0
R-9	Outstanding Sportsmen																														4	
	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0		0
R-10(a)	Nominees of Dinshaw Family																														4	
	1	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
R-10(b)	Nominees of LEJ Foundation																														6	
	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0		0
R-11(a)	Nominees of UET Lahore/Taxila																														4	
	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
R-11(b)	Nominees of UET Peshawar																														2	
	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
R-12(a)	Nominees of Government of Balochistan																														4	
	1	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
R-12(b)	Nominees of FATA																														18	
	4	0	0	0	2	0	0	0	2	0	2	2	0	0	0	0	0	0	0	0	0	1	1	1	0	2	0	0	1	0		0
R-12(c)	Nominees of Government of Kashmir																														4	
	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
R-12(d)	Nominees of Government of Gilgit Baltistan																														13	
	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6		5





Category	CE	CE (UE)	PE	CE (CN)	ME	TE	IM	AU	EE	TC	CS	EL	CH	MY	MM	PP	FD	BM	SE	CT	PH	IC	CF	DS	TS	MG	B Arch	EG	EC	TCT	TCE	Total
R-12(e)	Nominees of Ministry of Education Govt. of Pakistan																														1	
	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
R-12(f)	Nominees of Indian Occupied Kashmir (IOK)																														5	
	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0		
R-13(a)	Nominees of G.H.Q (Army)																														9	
	2	0	0	0	2	1	0	0	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
R-13(b)	Nominees of N.H.Q (Navy)																														1	
	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
R-13(c)	Nominees of P.A.F (Air Force)																														1	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0		
R-13(d)	Nominees of Sindh Rangers																														1	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
R-13(e)	Nominees of Airport Security Forces (ASF)																														4	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1		
R-14	Foreign Candidates Nominated by Economic Affairs Division (Ministry of Finance), Islamabad																														5	
	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0		
TOTAL	154	70	36	31	181	65	91	36	168	70	96	115	70	50	50	50	38	63	67	139	70	70	70	28	70	70	36	32	80	50	40	2256

Key for abbreviations:

CE	Civil Engineering	EL	Electronic Engineering	PH	Physics
CE(UE)	Civil Engineering (Specialisation in Urban)	CH	Chemical Engineering	IC	Industrial Chemistry
PE	Petroleum Engineering	MY	Metallurgical Engineering	CF	Computational Finance
CE(CN)	Civil Engineering (Specialisation in Construction)	MM	Materials Engineering	DS	Development Studies
ME	Mechanical Engineering	PP	Polymer & Petrochemical Engineering	TS	Textile Sciences
TE	Textile Engineering	FD	Food Engineering	MG	Management Sciences
IM	Industrial & Manufacturing Engineering	BM	Biomedical Engineering	EG	English Linguistics
AU	Automotive Engineering	SE	Software Engineering	EC	Economics & Finance
EE	Electrical Engineering	CT	Computer Science	TCT	Computer Science at TIEST
TC	Telecommunications Engineering	B. Arch	Architecture	TCE	Civil Engineering at TIEST
CS	Computer Systems Engineering				

- NB:**
- Applicants for admission in Biomedical Engineering should have interest in Natural and Basic Sciences as they will be studying Biology, Physiology, Anatomy and Biochemistry.
 - Applicants for admission in Architecture Programme should have skill and interest in free hand sketching drawing and communication.
- * Seats allocated in Engineering Programmes for Pre-Medical Group are subjected to permission granted by PEC for such admissions; otherwise, these seats will be transferred to Pre-Engineering groups of respective categories (both in Regular & Self-Finance Schemes)
- ** Computer Science is offered with specialisation in **Data Science**, **Cyber Security**, **Artificial Intelligence** and **Gaming & Animation**, with allocation of 50 seats in each of the specialization programme, that will be allocated on university's first year merit.





5.1(ii) Description of Categories

- R-1(a) Candidates having passed HSC (Pre-Engineering/ Computer Science) Part I & II Examinations from Board of Intermediate Education, Karachi.
- R-1(b) Candidates having passed HSC(Pre-Medical) Part I & II Examinations from Board of Intermediate Education, Karachi.
- R-1(c) Candidates having passed HSC(Commerce) Part I & II Examinations from Board of Intermediate Education, Karachi.
- R-1(d) Candidates having passed HSC(Arts) Part I & II Examinations from Board of Intermediate Education, Karachi.
- R-1(e) Candidates having passed DAE from Sindh Board of Technical Education (SBTE).
- R-1(f) Candidates having disability (excluding the disability of deafness, dumbness, and blindness) and passed HSC (Pre-Engineering/Pre-Medical/Computer Science) Part I and II from any Board of Intermediate Education situated in province of Sindh and having certificate of disability from Department of Empowerment of Persons with Disabilities (DEPD), Government of Sindh. Such candidates may be required to appear before medical board.
- R-1(g) Candidates who are residents of Pakistan, belong to religious minorities and have passed HSC (Pre-Engineering/ Pre-Medical / Computer Science / Commerce / Arts) Part I and II from Board of Intermediate Education or equivalent foreign examination as recognized by the University.
- R-2(a) Candidates having passed HSC (Pre-Engineering/Pre-Medical/ Computer Science/Commerce/Arts) Part I & II Examinations from Board of Intermediate & Secondary Education, Hyderabad.
- R-2(b) Candidates having passed HSC (Pre-Engineering/Pre-Medical/Computer Science/Commerce/Arts) Part I & II Examinations from Board of Intermediate & Secondary Education, Mirpurkhas.
- R-2(c) Candidates having passed HSC (Pre-Engineering/Pre-Medical/Computer Science/Commerce/Arts) Part I & II Examinations from Board of Intermediate & Secondary Education, Sukkur.
- R-2(d) Candidates having passed HSC (Pre-Engineering/Pre-Medical/Computer Science/Commerce/Arts) Part I & II Examinations from Board of Intermediate & Secondary Education, Larkana.
- R-2(e) Candidates having passed HSC (Pre-Engineering/Pre-Medical/Computer Science/Commerce/Arts) Part I & II Examinations from Board of Intermediate & Secondary Education, Nawabshah.
- R-3(a) Candidates having passed HSC (Pre-Engineering/ Pre-Medical/Computer Science/Commerce/Arts) Part I & II Examinations from Federal Board of Intermediate & Secondary Education, Islamabad.
- R-3(b) Candidates having passed HSC (Pre-Engineering/ Computer Science) Part I & II Examinations from Aga Khan Board.

R-3(c) Candidates having passed HSC(Commerce) Part I & II Examinations from Aga Khan Board.

R-3(d) Candidates having passed HSC(Pre-Medical) Part I & II Examinations from Aga Khan Board.

N.B: The seats between sub-categories R-3(b) to R-3(d) are inter-transferable, whenever considered necessary by the University.

R-3(e) Candidates having passed HSC (Pre-Engineering/ Pre-Medical / Computer Science / Commerce/ Arts) Part I & II Examinations from Ziauddin University Education Board.

R-4(a) Candidates having passed Foreign Examination (A-Level, Cambridge/London/Oxford) equivalent to HSC (Pre-Engineering/Computer Science) Examination.

R-4(c) Candidates having passed Foreign Examination (12th Grade or Others) equivalent to HSC (Pre-Engineering/ Pre-Medical / Computer Science / Commerce/ Arts) Examination.

R-4(d) Candidates having passed foreign Examination (A Level, Cambridge/London/Oxford) equivalent to HSC (Pre-Medical) Examination.

R-4(e) Candidates having passed Foreign Examination (A Level, Cambridge/ London/Oxford) equivalent to HSC (Commerce) Examinations.

R-4(f) Candidates having passed Foreign Examination (A Level, Cambridge/ London/Oxford) equivalent to HSC (Arts) Examinations.

N.B: The seats between sub-categories R-4(a) to R-4(f) are inter-transferable, whenever considered necessary by the University.

R-5 Candidates having passed HSC (Pre-Engineering/Pre-Medical /Computer Science/Commerce/Arts) Part I & II Examinations from any Board other than Karachi, Aga Khan, Ziauddin, Hyderabad, Mirpurkhas, Sukkur, Larkana, Nawabshah, Federal Board and Foreign Examinations.

R-6 Candidates who are residents of Rural Area of Karachi Division and have passed HSC (Pre-Engineering/Pre-Medical/ Computer Science/Commerce /Arts) Part-I & Part-II Examination from Board of Intermediate Education, Karachi and have passed Pre-Admission Entry Test of this University with at least 50% marks. Candidates having passed Matriculation / SSC from any school located in any Rural Area of the Karachi shall be given the preference.

R-7(a) Candidates – Real Sons/Real Daughters of the NED University Teachers are eligible for admission provided that:

- i) The candidate has passed HSC/Equivalent Examination (Pre-Engineering / Pre-Medical / Computer Science / Commerce/Arts) and have passed Pre-Admission Entry Test of this University with at least 50% marks.
- ii) His/her real father/mother is serving in the University and has put in a minimum of three years continuous regular service in the University; or has retired from the service of the University after satisfactory completion of a minimum qualifying service or has expired after completion of minimum of three years continuous service in this University.





R-7(b) Candidates- Real Sons / Real Daughters of the NED University employees other than teachers are eligible for admission provided that:

- The candidate has passed HSC/Equivalent Examination (Pre-Engineering / Pre-Medical / Computer Science / Commerce/ Arts) and have passed Pre-Admission Entry Test of this University with at least 50% marks.
- His/her real father/mother is serving in the University and has put in minimum of three years continuous regular service in the University; has retired from the service of the University after satisfactory completion of minimum qualifying service or has expired after completion of minimum of three years continuous regular service in this University.

N.B: The seats between the sub-categories R-7(a) and R-7(b) are inter-transferable, whenever considered necessary by the University.

R-9 The candidates who are outstanding Sportsmen / Sportswomen are eligible for admission under this category provided that:

- They are domiciled in Sindh province and have passed HSC/Equivalent Examination (Pre-Engineering). Such candidates must fulfill the criteria given in para 4.2.2.
- They have passed Pre-Admission Entry Test of this University with at least 50% marks or any other such test as described in Para 4.2.3.

N.B. The following are the approved sports and games for admission under this category:

Sports: athletics, boxing, swimming, and rowing.

Games: basketball, cricket, hockey, football, volleyball, badminton, tennis, table tennis and squash.

- Subject to the conditions that the candidate has represented any sports Organizations/ Institutions/ Universities/ Board or Colleges of Sindh Province for the last three years to be calculated from the last date of submission of Application Form, the order of priority for selection under sports category shall be as follows:

Priority Order:

- Member of National Team
- National Champion (Individual/Team)
- Member of National Junior Team
- Member of Pakistan Universities Team/ Pakistan Boards Team
- National Junior Champion (Individual/Team)
- Inter University/Inter Board Champion (Individual/Team)
- National Youth Champion (Individual/Team)
- Member of Sindh Provincial Team
- Sindh Champion (Individual/Team)

(iv) The criteria of for selection for admission under this category shall be:

- Amongst candidates who qualify, not more than two sportsmen / sportswomen shall be selected for any individual sport/game. The merit list will be prepared considering the highest order of achievement in sports.
- Based on the order of achievements if there is a tie between two or more candidates, their lower order achievements will be considered, and they will be subsequently rated in the light of the order of priority list. In case of further tie a candidate with achievement in individual event will get preference over a candidate with achievement in team event. If still the tie is not resolved the older candidate will get the preference over the younger candidate.
- The information about event, name of team and distinction achieved by the team as well as by the candidate shall be supplied on the Application Form along with attested copies of other certificates issued by appropriate authorities listed in Para R-9(iv-f). The achievement certificates must be in printed form.
- The membership certificate of each sport team should contain the name of the player, sport, team represented and the year of representation.
- The Championship certificate of one sports team should contain the name of player, sport, team represented, name of event/category/class in which player secured championship, year of championship and position.

N.B: For priority order Nos. 1 & 4, only senior teams will be considered. Any team without mentioning age group, will be considered as senior team. Normally teams with age groups are as under:

- Senior Team (without age limit)
- Junior Team (under 20 years age)
- Youth Team (under 16 years age)

- For the purpose of selection of the candidates under sports category, only those achievements should be considered, the events of which have taken place before the last date of submission of Application Form for admission. Attested copies of all certificates are to be enclosed with the Application Form. Original certificates must be shown at the time of interview for selection. At the time of interview only those original certificates will be accepted for consideration whose photocopies have already been provided with the Application Form. The Sports Certificates must be furnished by the sports authorities mentioned below:

- For priority order Nos. 1, 2, 3 & 5 Secretary of concerned Sports Federation.
- For priority order No. 4 & 6 Director Sports Higher Education Commission/ Secretary, Inter Boards Tournament Committee as the case may be.





- For priority order No.7 Director General, Pakistan Sports Board and Coordinator/ Director Sindh Sports Board.
 - For priority order No. 8 & 9 Secretary, concerned provincial Sports Association.
 - For membership of Pakistan Board Team, Secretary of Inter Boards Tournaments Committee.
 - For Inter-University Championship, Secretary of Pakistan University Sports Board.
 - For Inter-Board Championship, Secretary of Inter-Board Tournament Committee
- g. Selection of applicants will be made by Sports Admission Committee constituted by the Vice-Chancellor. The merit documents of applicants will be verified by the nominees of the Committee from the authorities and/or sources which Committee considers appropriate.
- h. Applicants admitted under this category i.e. Outstanding Sportsmen / Sportswomen will be required to produce an affidavit to the effect that they will represent the University in their respective games/sports whenever called upon to do so and that they would not play as professional or represent any other public/private institute on part time/full time basis. The required affidavit will be produced on stamp paper of Rs.100/- duly signed by the Notary Public.

Reserved Categories for Nominees

Each nominee under the reserved categories of any nominating agency / body must have passed HSC / Equivalent Foreign Examination as recognized by this University and also eligible as per Clause 4.2.

- R-10(a) Nominees who belong to Parsi/ Minority Communities and whose names are recommended by Dinshaw Family.
- R-10(b) Nominees who are recommended by Latif Ebrahim Jamal (LEJ Foundation).
- R-11(a) Nominees of UET Lahore/Taxila under reciprocal basis through Education Department, Govt. of Punjab.
- R-11(b) Nominees of UET Peshawar under reciprocal basis through Education Department, Govt. of Khyber Pakhtunkhwa.
- R-12(a) Nominees from Balochistan whose names are forwarded by Education Department, Government of Balochistan.
- R-12(b) Nominees from erstwhile FATA Region whose names are forwarded by Home & Tribal Affairs Department, Government of Khyber Pakhtunkhwa, Peshawar.
- R-12(c) Nominees from Azad Kashmir whose names are forwarded by Nomination Board, Azad Jammu and Kashmir.
- R-12(d) Nominees from Gilgit Baltistan whose names are forwarded by Kashmir Affairs and Northern Affairs Division, Government of Pakistan.

- R-12(e) Nominees from Federal Capital Area whose names are forwarded by Cabinet Division, Government of Pakistan, Islamabad.
- R-12(f) Nominees who are from Indian Occupied Kashmir (IOK) whose names are forwarded by Ministry of Finance, Revenue, Economic Affairs Division.
- R-13(a) Nominees who are children of Army Personnel and whose names are forwarded by Welfare Rehabilitation Directorate, GHQ, Rawalpindi.
- R-13(b) Nominees who are children of Navy Personnel and whose names are forwarded by the Director Personal Services, Naval Headquarters.
- R-13(c) Nominees who are children of Air Force Personnel and whose names are forwarded by the Directorate of Education, Air Headquarters.
- R-13(d) Nominees who are children of Rangers Personnel and whose names are forwarded by the Director General, Pakistan Rangers (Sindh).
- R-13(e) Nominees who are children of Airport Security Force (ASF) and whose names are forwarded by the Directorate of Education, ASF.
- R-14 Nominees who are foreign nationals and whose names are forwarded by the Economic Affairs Division Government of Pakistan, Islamabad.

5.1(iii) Transfer of Seats

- (a) If the number of candidates in Arts, Commerce and Pre-Medical groups selected for admission under categories from R-1 to R-4 falls short of the allocated number of seats, after admission and waiting lists have been considered, the balance number of seats in each of these categories will be transferred to respective categories reserved for Pre-Engineering group. Any further balance seats from categories R-1 to R-4 as well as all balance seats in other categories R-5 to R-14 will be transferred to R-1(a).
- (b) Any seat remaining vacant from any category at Thar Institute of Engineering, Sciences and Technology (TIEST) will be transferred to the category reserved for Mirpurkhas Board. Any further vacant seat will be inter-transferable with other categories wherever considered necessary by the University administration.





5.2 SELF FINANCE SCHEME.

5.1(i) Distribution of Seats

Category	CE	CE (UE)	PE	CE (CN)	ME	TE	IM	AU	EE	TC	CS	EL	CH	MY	MM	PP	FD	BM	SE	CT	PH	IC	CF	DS	TS	MG	B Arch	EG	EC	TCT	TCE	Total
SF-1(a)	HSC (Pre-Engineering/Computer Science) from Board of Intermediate Education, Karachi.																														178	
	4	6	0	2	35	2	16	2	43	3	15	17	3	0	0	0	1	2	7	18	0	0	0	0	0	0	2	0	0	0		0
SF-1(b)	HSC (Pre-Medical*) from Board of Intermediate Education, Karachi.																														37	
	0	0	0	0	0	4	0	0	1	0	4	2	0	0	0	0	1	12	4	8	0	0	0	0	0	0	1	0	0	0		0
SF-2(a)	HSC (Pre-Engineering/Pre-Medical*/Computer Science) from Board of Intermediate Education, Hyderabad																														18	
	6	0	0	0	2	1	1	0	2	0	1	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	1	0	0	0		0
SF-2(b)	HSC (Pre-Engineering/Pre-Medical*/Computer Science) from Board of Intermediate Education,Mirpurkhas																														14	
	6	0	0	0	2	0	0	0	1	0	1	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0		0
SF-2(c)	HSC (Pre-Engineering/Pre-Medical*/Computer Science) from Board of Intermediate Education,Sukkur																														14	
	6	0	0	0	2	0	1	0	1	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0		0
SF-2(d)	HSC (Pre-Engineering/Pre-Medical*/Computer Science) from Board of Intermediate Education,Larkana																														13	
	5	0	0	0	1	1	0	0	1	0	1	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0		0
SF-2(e)	HSC (Pre-Engineering/Pre-Medical*/Computer Science) from Board of Intermediate Education, Nawabshah																														8	
	5	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0		0
SF-3(a)	HSC (Pre-Engineering/Pre-Medical*/Computer Science) from Federal Board of Education, Islamabad from an institute located in Pakistan																														19	
	2	0	0	0	2	0	1	0	2	0	1	2	2	0	0	0	0	0	0	6	0		0	0	0	0	1	0	0	0		0
SF-3(b)	HSC (Pre-Engineering/Pre-Medical*/Computer Science) from Aga Khan Board																														24	
	2	0	0	0	4	0	1	0	4	0	2	0	3	0	0	0	0	0	0	7	0	0	0	0	0	0	1	0	0	0		0
SF-3(e)	HSC (Pre-Engineering/Computer Science/Pre-Medical*) from Ziauddin Board																														3	
	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SF-4(a)	A-Level (Pre-Engineering/Pre-Medical*/Computer Science) Institutions located in Pakistan																														77	
	3	3	2	2	10	2	4	0	12	2	3	4	5	0	0	0	0	2	3	16	0	0	0	0	0	0	4	0	0	0		0
SF-4(b)	12th Grade & other Institutions located in Pakistan																														9	
	1	0	0	0	2	0	0	0	1	0	1	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0		0
SF-5	HSC(Pre-Engineering/Pre-Medical*/Computer Science) from Board other than Karachi, Aga Khan Hyderabad, Mirpurkhas, Sukkur, Larakana, Nawabshah, Ziauddin Federal & Foreign Exam																														3	
	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0		0
SF-6(a)	A-Level (Pre-Engineering/Pre-Medical*/Computer Science) Institutions located outside Pakistan																														10	
	1	0	0	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0		0
SF-6(b)	12th Grade (Pre-Engineering/Pre-Medical*/Computer Science) Institutions located outside Pakistan																														4	
	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0		0
SF-6(c)	HSC (Pre-Engineering/Pre-Medical*/Computer Science) from Federal Board Islamabad, Institutions located outside Pakistan																														13	
	1	0	1	0	1	1	1	0	2	1	1	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0		0



Category	CE	CE (UE)	PE	CE (CN)	ME	TE	IM	AU	EE	TC	CS	EL	CH	MY	MM	PP	FD	BM	SE	CT	PH	IC	CF	DS	TS	MG	B. Arch	EG	EC	TCT	TCE	Total
SF-7(a)	Foreign Candidates whose names are forwarded by Higher Education Commission, Pakistan																														8	
	1	0	0	0	1	0	0	1	1	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0		
SF-7(b)	Afghan Candidates whose names are forwarded by Higher Education Commission																														6	
	3	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SF-8	Real Sons and daughters of NEDAN Life Members																														15	
	1	0	0	0	1	1	1	1	1	1	1	1	2	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0		
SF-9(a)	Real Sons/Daughters of Professional Engineers																														4	
	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SF-9(b)	Real Sons/Daughters of Professional Architect & Town Planners																														2	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0		
SF-9(c)	Real Sons / Daughters of Expatriate Pakistanis																														11	
	1	0	0	0	1	0	1	0	1	1	1	1	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0		
SF-10(a)	Nominees of Dinshaw Family																														4	
	1	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SF-10(b)	Nominees of S. S. International																														2	
	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SF-11	Sponsors Seats																														164	
	17	0	0	0	15	0	0	0	15	0	20	0	0	0	0	0	0	0	15	82	0	0	0	0	0	0	0	0	0	0		
TOTAL	72	10	4	4	80	15	29	4	94	10	54	36	20	0	0	0	2	17	34	161	0	0	0	0	0	0	14	0	0	0	0	660

Key for abbreviations:

CE Civil Engineering	EL Electronic Engineering	PH Physics
CE(UE) Civil Engineering (Specialisation in Urban)	CH Chemical Engineering	IC Industrial Chemistry
PE Petroleum Engineering	MY Metallurgical Engineering	CF Computational Finance
CE(CN) Civil Engineering (Specialisation in Construction)	MM Materials Engineering	DS Development Studies
ME Mechanical Engineering	PP Polymer & Petrochemical Engineering	TS Textile Sciences
TE Textile Engineering	FD Food Engineering	MG Management Sciences
IM Industrial & Manufacturing Engineering	BM Biomedical Engineering	EG English Linguistics
AU Automotive Engineering	SE Software Engineering	EC Economics & Finance
EE Electrical Engineering	CT Computer Science	TCT Computer Science at TIEST
TC Telecommunications Engineering	B. Arch Architecture	TCE Civil Engineering at TIEST
CS Computer Systems Engineering		

- NB:**
- Applicants for admission in Biomedical Engineering should have interest in Natural and Basic Sciences as they will be studying Biology, Physiology, Anatomy and Biochemistry.
 - Applicants for admission in Architecture Programme should have skill and interest in free hand sketching drawing and communication.
- *** Seats allocated in Engineering Programmes for Pre-Medical Group are subjected to permission granted by PEC for such admissions; otherwise, these seats will be transferred to Pre-Engineering groups of respective categories (both in Regular & Self-Finance Schemes)
- **** Computer Science is offered with specialisation in **Data Science, Cyber Security, Artificial Intelligence** and **Gaming & Animation**, with allocation of 50 seats in each of the specialization programme, that will be allocated on university's first year merit.





5.2(ii) Description of Categories

- SF-1(a) Candidates having passed HSC (Pre-Engineering/ Computer Science) Part I & II Examinations and improvement, if any, from Board of Intermediate Education, Karachi.
- SF-1(b) Candidates having passed HSC (Pre-Medical) Part I & II Examinations and improvement, if any, from Board of Intermediate Education, Karachi,
- SF-2(a) Candidates having passed HSC (Pre-Engineering/ Pre-Medical/Computer Science) Part I & II Examination and improvement, if any, from Board of Intermediate & Secondary Education, Hyderabad.
- SF-2(b) Candidates having passed HSC (Pre-Engineering/ Pre-Medical/Computer Science) Part I & II Examination and improvement, if any, from Board of Intermediate & Secondary Education, Mirpurkhas.
- SF-2(c) Candidates having passed HSC (Pre-Engineering/ Pre-Medical/Computer Science) Part I & II Examination and improvement, if any, from Board of Intermediate & Secondary Education, Sukkur.
- SF-2(d) Candidates having passed HSC (Pre-Engineering/ Pre-Medical/Computer Science) Part I & II Examination and improvement, if any, from Board of Intermediate & Secondary Education, Larkana.
- SF-2(e) Candidates having passed HSC (Pre-Engineering/ Pre-Medical/Computer Science) Part I & II Examination and improvement, if any, from Board of Intermediate & Secondary Education, Nawabshah.
- SF-3(a) Candidates having passed HSC (Pre-Engineering/ Pre-Medical/Computer Science) Part I & II Examination and improvement, if any, from Federal Board of Intermediate & Secondary Education, Islamabad.
- SF-3(b) Candidate having passed HSC (Pre-Engineering/ Pre-Medical/Computer Science) Part I & II Examinations and improvement if any, from Aga Khan Board Karachi.
- SF-3(e) Candidates having passed HSC (Pre-Engineering / Pre-Medical/Computer Science) Part I & II Examinations from Ziauddin University Education Board.
- SF-4(a) Candidates having passed Foreign Examination (A Level, Cambridge/ London/Oxford) equivalent to HSC (Pre-Engineering/ Pre-Medical /Computer Science) part I & II Examinations. Located in Pakistan.
- SF-4(b) Candidates having passed Foreign Examination (12th Grade or Others) equivalent to HSC (Pre-Engineering/ Pre-Medical/Computer Science) part I & II Examination. Located in Pakistan.

SF-5 Candidates having passed HSC (Pre-Engineering/ Pre-Medical/Computer Science) Part I & II Examinations from any Board other than Karachi, Aga Khan, Ziauddin, Hyderabad, Mirpurkhas, Sukkur, Larkana, Nawabshah Federal Board and Foreign Examinations.

N.B: **Rs. 825,000/- (Rupees Eight Hundred Twenty-Five Thousand only) shall be required to be deposited in designated branch of the banks as Self Finance Fee for admission in all disciplines under above categories (SF-1 to SF-5).**

SF-6(a) Candidates having passed Foreign Examination (A Level, Cambridge / London / Oxford) equivalent to HSC(Pre-Engineering/Pre-Medical/Computer Science), located Overseas.

SF-6(b) Candidates having passed Foreign Examination (12th Grade or Others) equivalent to HSC Pre-Engineering/ Pre-Medical/ Computer Science), located Overseas.

SF-6(c) Candidates having passed HSC (Pre-Engineering/ Pre-Medical/Computer Science) Part I & II Examination from Federal Board of Intermediate & Secondary Education, Islamabad, located Overseas.

SF-7(a) Foreign candidates whose names are forwarded by the Higher Education Commission Government of Pakistan, Islamabad must have passed HSC (Pre-Engineering/Pre-Medical/Computer Science) Examination or an Equivalent Foreign Examination.

SF-7(b) Afghan Candidates whose name are forwarded by the Higher Education Commission Government of Pakistan, Islamabad must have passed HSC (Pre-Engineering/Pre-Medical/Computer Science) Examination or an Equivalent Foreign Examination.

SF-8 Candidates who are Real Sons / Daughters of NED University Alumni Network (NEDAN) Life Members and have passed HSC (Pre-Engineering) Part I & II Examinations from Board of Intermediate Education or equivalent foreign examination as recognised by the University.

SF-9(a) Candidates who are Real Sons/ Daughters of Professional Engineers of Sindh Province and have passed HSC (Pre-Engineering) Part I & II Examinations from Board of Intermediate Education or equivalent foreign examination as recognised by the University.

N.B: **The candidate's real parent must have valid registration with Pakistan Engineering Council.**

SF-9(b) Candidates who are Real Sons/ Daughters of Professional Architects/Planners of Sindh Province and have passed HSC (Pre-Engineering/Pre-Medical/Computer Science) Part I & II Examinations



from Board of Intermediate Education or equivalent foreign examination as recognised by the University.

N.B: The candidate's parent must have valid registration with the Pakistan Council of Architects and Town Planners (PCATP).

SF-9(c) Candidates who are Real Sons/ Daughters of Expatriate Pakistanis and have passed HSC (Pre-Engineering/ Pre-Medical / Computer Science) Examinations or equivalent foreign examination as recognised by the University.

N.B: The candidate's parent must have valid NICOP.

SF-10(a) Nominees who belong to Parsi / Minority Communities and whose names are recommended by Dinshaw Family.

SF-10(b) Nominees who are recommended by S.S. International.

SF-11 Candidates who are residents of Pakistan and have passed HSC (Pre-Engineering/Pre-Medical/Computer Science) Part I & II Examinations from Board of Intermediate Education or DAE from SBTE or equivalent foreign examination as recognized by the University.

N.B: i) **Rs. 1,025,000/- (Rupees One Million twenty-five thousand only) shall be required to be deposited in designated branch of the banks as Self Finance Fee for admission under the above categories (SF-6 to SF-11).**

ii) The seats between sub-categories SF-4(a), SF-4(b), SF-6(a), SF-6(b) and SF-9(c) are inter-transferable, whenever considered necessary by the University.

5.2(iii) Admission Under More Than One Categories

Candidates applying against more than one category under Self Finance Scheme may only deposit Self Finance Fee for any one category. In case of difference in amount of Self Finance, the highest amount needs to be deposited.

5.2 (iv) Transfer of Seats

(a) If the number of candidates under categories from SF-2 to SF-4 falls short of the allocated number of seats, after admission and waiting lists have been considered, the balance number of seats in each of these categories will be transferred to respective categories reserved for pre-engineering group. Any further balance seats from categories SF-2 to SF-4 as well as all balance seats in other categories (SF-5 to SF-11) will be transferred as under:

- (i) All BE and BS (CT) Happeats to SF-1(a).
- (ii) All remaining BS and B. Arch seats to R-1(a).

(b) Any seat remaining vacant from any category at Thar Institute of Engineering, Sciences and Technology (TIEST) will be transferred to the category reserved for Mirpurkhas Board. Any further vacant seat will be inter-transferable with other categories wherever considered necessary by the University.







CHAPTER 6

Mode of Admission





6.1 ADMISSION IN FIRST SEMESTER

6.1.1. Reporting in Person

Applicants whose names appear in the Merit list should personally report for Submission of documents and Medical Fitness Test at Admission Office on the date and time specified for reporting, according to the schedule, provided by the University.

6.1.2 Documents Required

Candidate for admission must submit the following documents to the Admissions Office (as per clause 4.1.4):

i. Original Documents (to be retained by the University)

- Domicile of Sindh Province
- Affidavit of non-political activities
- HSC / DAE Marks Sheet or Equivalent Marks Sheet
- Equivalence Certificate from IBCC for foreign examinations and Grade Sheets, if applicable
- Hafiz-e-Quran Certificate, if applicable
- Migration Certificate in case of having passed HSC examination from a Board other than Karachi Board

ii. Other Documents (Two Attested Photocopies)

- SSC or Equivalent or DAE Examination Mark sheet and Certificate
- Admit Card of Pre-Admission Entry Test
- In addition, Passport Size Photographs (02 Nos.).

Original documents retained by the University will be returned after the completion or termination of the studies at this University.

Applicants are advised that they should retain sufficient number of attested photocopies of their documents/ certificates as the originals are not likely to be returned during their period of study at the University.

The name of applicants who do not submit the original documents on the specified scheduled dates for each category, shall stand deleted from the Merit List. No plea whatsoever, shall be acceptable in case any applicant fails to appear on the scheduled date.

6.1.3 Medical Fitness Test

Each candidate shall be examined for Medical Fitness being offered admission in this University. For Medical Fitness Test candidates shall have to:

- Deposit Medical Fee along with Admission Fee at the time of interview.

- Produce Bank deposit slip to the Office of Principal Medical Officer (PMO) of the University along with Chest PA view X-Ray, two passport size photographs and attested photocopy of Matriculation Certificate. In case of foreign examinations candidate's proof of date of birth should be produced.

NB: The applicants, who fail to appear for medical examination on the specified scheduled dates as notified for the respective category, shall stand deleted from the Merit List. No plea whatsoever shall be acceptable in case any candidate fails to appear on the scheduled date.

6.1.4 Medical Fitness

- The eyesight, aided or unaided, should not be poorer than 6/9 in one eye and 6/12 in other eye while near vision should be N5 at least with glasses.
- The chest expansion should not be less than 4cm and X-ray of chest should be satisfactory.
- The limbs, including the feet and toes, should be well formed and developed with perfect and unrestricted movement of all joints.
- The candidate should not suffer from any remarkable skin disease.
- Colour blindness—even if vision is otherwise normal—will disqualify applicants for the disciplines of Mechanical, Electrical, Computer & Information Systems, Textile, Industrial & Manufacturing, Electronics and Telecommunications Engineering. Candidates may, however, be considered for other disciplines.

6.1.5 Interview & Admission

- Candidates would be required to appear for Interview before the Admission Committee to choose the discipline from the available seats in their respective category. The selection of Discipline/ Programme is based on a computerized interactive process. **The choice of available seats would decrease as one goes down in the order of merit** and each candidate will have to make "on-the-spot" choice from the seats available. **To assist the candidate in making the decision he/she may bring his/her parents (or guardian) on the day of interview.**
- If the candidate decides to get admission, then he / she shall be required to
 - Pay the following amount either in cash or through Pay Order in favour of Director of Finance, NED University, which should have been acquired earlier.





- Rs.101,045/- for all Engineering programmes.
- Rs.110,435/- for all BS (Computer Sciences) and all programmes offered at TIEST.
- Rs.103,045/- for candidates being admitted in Architecture Department
- Rs. 101,045/- for candidates being admitted in all remaining BS programmes. Those admitted in BS (Industrial Chemistry) shall be required to pay Rs. 102,545/- (including Rs.1500/- as Bench Fee)
- Rs. 110,435/- for candidates being admitted in BS(CT) Programmes.

NB: *Merit/Need Scholarship shall be awarded to the deserving newly admitted students by the University.*

- b) Submit a declaration of non-participation in political activities and non-indulgence in unwanted activities on Stamp Paper of Rs.100/.
- (iii) If the candidate is unable to attend the interview in case of 'exceptional circumstances' he/she may authorise any person, **preferably a parent**, to come on the interview day and take decision on behalf of candidate. The person so authorized shall have to complete all formalities required by the University regarding admission process. Candidates who expect to face 'exceptional circumstances' should contact the Chairman Admission Committee before interview.
- iv) A Candidate applying under more than one category- once admitted in any category, either withdraw for all other category(ies) applied OR reappear before Admission Committee on prescribed time, if he / she wants to change his / her admission category.
- (v) The name of candidates who do not appear for medical, do not submit the original documents and/ or fail to appear for interview / Admission on the specified scheduled dates for each category, shall be deleted from the Merit List. The candidate may, however, appeal, giving justification for non-appearance on the scheduled date for consideration about inclusion in subsequent Merit List to be issued.

6.1.6 University Identity Card

Candidates who are admitted shall be issued University Identity Cards. All students are required to carry and produce original University Identity Cards whenever required.

6.2 EMPLOYMENT / SIMULTANEOUS ENROLMENT

All undergraduate degree programmes are regular full-time day programmes. No student admitted in this University shall be allowed to engage himself/ herself in employment or maintain simultaneous enrolment in any

other course of studies in other educational institutions. Violation of above may lead to cancellation of admission.

6.3 CANCELLATION / WITHDRAWAL OF ADMISSION

The Vice Chancellor will be competent authority to cancel or withdraw admission of any candidate.

6.4 MEDIUM OF INSTRUCTIONS

The medium of instructions and examinations shall be English.

6.5 ADMISSIONS IN SUBSEQUENT SEMESTER/ YEARS OF STUDY

- 6.5.1 Registration in any Semester shall be allowed only during first three weeks after commencement of classes of that Semester. Registration shall be confirmed after payment of semester fee.
- 6.5.2 Registration shall however be subject to the conditions laid down in clauses 6.5.3(d) and 6.5.4(c)
- 6.5.3(a) In a semester, a student shall be registered in any such courses prescribed in that Semester which the student has not passed earlier, subject to clause 6.5.4(c).
- 6.5.3(b) Registration in any course(s) offered other than the prescribed courses of that Semester/Session may also be allowed by the Chairman of the Department concerned in the following cases subject to payment of prescribed fees:
 - i) If the student has been admitted in Second Year Fall Semester on migration basis and consequently required to pass (additional) course(s) of First Year in which he/she is not eligible for exemption.
 - ii) The student having been allowed change of discipline is required to pass such course(s) in which either transfer of credit has not been allowed or the student has not studied the course(s) earlier.
 - iii) The student requests being allowed to either register in any course(s) in which he/she had failed earlier or any course(s) as permissible under Para 6.10.1 for grade improvement. Sessional marks shall be revised for which the student shall be required to appear in tests and submit assignments for sessional marks.
 - iv) The student having short of attendance during previous semester(s).
 - v) The student shall have to attend at least 75% classes in courses where he/she has not met this requirement earlier.
- 6.5.3(c) In any case, the number of registered courses in any semester including all prescribed courses of a semester, should not exceed the maximum prescribed limit.





6.5.3(d) In any Semester, the student shall be allowed to register in maximum of seven theory courses in total, excluding non-credit courses and FYDP. However, in B.Arch. Programme students will not be allowed to register for more than one design studio course in any one semester.

6.5.3(e) Students on Withdrawal shall not be eligible for registration.

6.5.4(a) Any student who fails to obtain at least 2.00 CGPA in First year Fall Semester shall remain on probation during First year Spring Semester. In any case, if such student still has less than 2.00 CGPA at the time of registration in Second year Fall Semester, he/she shall proceed to second (and last) probation during that semester. During the probation period(s) such student shall be allowed to register for the regular courses as well as any backlog courses within the maximum limit defined in clause 6.5.3(d).

6.5.4(b) In any semester, the student shall ONLY be allowed to register in course(s) of which he/she has studied/qualified the relevant pre-requisite course(s). In any case the maximum number of courses shall be in accordance to clause 6.5.3(d).

6.5.4(c) Any such students who after being in second probation have obtained more than 1.00 CGPA but less than 2.00 CGPA shall not be allowed to register in subsequent semester. He/She will be required to improve his/her CGPA up to 2.00 before being allowed to register in subsequent semester.

6.5.5 Any student having discontinued his/her studies after official permission due to any reason, shall be allowed registration in any semester, subject to fulfillment of condition laid down in clause 6.5.4 (c).

6.5.6(i) Any student registered in any additional course(s) may request the chairperson for change or withdrawal from such course(s). However, such change/ withdrawal shall be allowed only during first three weeks of the semester. In such case, the fee for the withdrawn courses will ONLY be adjusted towards subsequent semester.

6.5.6(ii) Any student may be allowed to withdraw from a course up to the 8th week of the semester. However, in such case, the fee of the course shall not be refunded/adjusted and the transcript shall record the enrolment with a grade 'W'.

6.5.6(iii) No request for withdrawal shall be accepted after 8th week of the semester, and in case of non-appearance in examination, the student shall be awarded 'WU' against that subject.

6.5.7 All such students who are interested to avail any Mobility Programmes need to register themselves in the subsequent semester (before proceeding abroad) by paying 40% of the Semester Fee. Furthermore, following conditions shall be fulfilled:

a) Such students shall be given exemption in the courses which they had studied in the institutions abroad provided that:

i) Such mobility was availed with the approval of the University

ii) Courses studied abroad are having more than 75% equivalency with the courses for which exemption is requested.

iii) Exemption will be allowed for courses with 'B' grade and above.

iv) Request for exemption should be submitted to concerned department within two weeks after returning from the mobility.

b) Mobility shall be allowed in second year and third year only for all students except students in B.Arch. Who shall be allowed Mobility in Second, Third and Fourth Years only.

c) Clause 6.5.4(c) shall also be applied to such students.

6.6 ADMISSION ON MIGRATION BASIS

Admission on migration shall be allowed in relevant discipline under extra ordinary circumstances subject to the following conditions:

a) Seat(s) is available in relevant discipline.

b) Applicant must have passed First Year of studies completely in the institution where he/ she was initially admitted.

c) Admission shall only be offered in Second Year (Fall Semester).

d) Applications for migration shall be called in the month of September on prescribed form which is required to be submitted along with processing fee of Rs. 1,500/-

e) Candidates offered migration shall be required to pay non-refundable migration fee of Rs. 800,000/- (Rupees Eight Hundred Thousand Only)

f) Student admitted on migration shall be given exemption in all such courses of First and Second Year which he/ she has passed during study in previous institution. However, he/ she shall be required to register and pass all such courses of the discipline in which he/ she is offered admission which he/ she has not studied in previous institution.





6.7 DURATION OF PROGRAMME

- 6.7.1 Courses of studies leading to the degree of Bachelor of Engineering and Science shall be of four (4) academic years' duration.
- 6.7.2 Courses of studies leading to degrees of Bachelor of Architecture shall however be of five (5) academic years' duration.
- 6.7.3 Any student who fails to complete all requirements for his/her degree in the prescribed time may continue study for further three academic years. Consequently, including the academic year of his/her first admission;
- Maximum seven academic years shall be allowed for each Four-year degree programme.
 - Maximum eight academic years shall however be allowed for each Five-year degree programme.
 - Any student admitted in Second Year on migration basis shall have one year reduced from maximum allowable period.
 - Any student admitted in Third Year on the basis of Associate Degree Programme shall have two years reduced from maximum allowable period.

6.8 CANCELLATION OF ADMISSION/ENROLMENT

- 6.8.1 Admission of any such student of First Year of Studies in any discipline shall be cancelled who is not a candidate for the Fall Semester Examination.
- 6.8.2 Admission of any such student of any Year/ Semester who has been rusticated from the University on account of serious breach of discipline for any specified period shall be cancelled and notified. However, after expiry of the period the student may be allowed readmission with original batch, if otherwise eligible.
- 6.8.3 Admission and enrolment of any such student of any Year/ Semester who has been expelled from the University on account of major breach of discipline shall be cancelled after due process and subsequently notified. The student shall not be eligible for any subsequent admission in the University.
- 6.8.5 Admission of any such student shall be cancelled, who without information fails to register in any Semester even after passing of the permissible registration duration.

6.9 WITHDRAWAL FROM SEMESTER/PROGRAMME

- 6.9.1 Withdrawal from any semester or programme may be allowed only in extra-ordinary circumstances.
- 6.9.2 The student shall be required to apply for withdrawal through concerned Chairperson along with evidence supporting his/her request for withdrawal.

6.9.3 Any such student(s) seeking readmission after withdrawal shall only be considered for readmission with original batch provided that:

- The applicant has officially withdrawn earlier from the semester or programme.
- The period of discontinuation of his studies does not exceed three academic years.
- He / She produces an Affidavit on Stamp Paper of prescribed amount declaring that during the period of his/her discontinuation of studies he/she was neither on the roll of any other Educational Institution nor was convicted by any Court of law.
- The student shall be able to complete his / her degree within time limit prescribed under Para 6.7.3.

6.10 GRADE IMPROVEMENT

- 6.10.1 (a) Any student may be allowed by the Chairperson of the Department concerned to repeat course(s) offered in that semester subject to the following conditions:
- A compulsory course which the student is required to repeat for obtaining a passing grade or a course selected by the student for improvement of his/her CGPA.
 - Any other elective course of a particular stream in lieu of an elective course.
- (b) The student shall be allowed to repeat courses as per the maximum limit defined in clause 6.5.3 (d).
- (c) The students may however repeat the course(s) as and when offered.
- (d) Better grades in course(s) shall be considered for determining his/her GPA/CGPA.
- 6.10.2 Any student who is eligible for award of degree under clause 7.7 (Chapter 7) but still desires to improve CGPA for any reason may be allowed by the Chairperson of the Department concerned, subject to the following conditions:
- No provisional certificate/degree has been issued to his/her.
 - Duration of completion for the degree does not exceed the maximum limit described under Clause 6.7.3.
 - The student requests registration in desired courses within two weeks after announcement of his/her result.







CHAPTER 7

Examinations



7.1 SEMESTER EXAMINATION

Semester Examinations are held followed by each semester. Schedule of such examinations shall be as notified by the Examinations Department.

7.2 CLASS ATTENDANCE

- 7.2.1 Any candidate, who registered during the semester, will be allowed to appear only in such course(s) in which his/her attendance is at least 75% during the semester.
- 7.2.2 Any candidate, who registered during the semester, will be allowed to appear in all such courses of the semester provided his/her aggregate attendance in all such courses is at least 75% of the total of all classes held in the courses during the semester.

7.3 ADMIT CARD

- 7.3.1 Admit Card for the examination shall be issued to any candidate who is eligible / allowed to appear in the course(s) as mentioned on his/ her Card.
- 7.3.2 The Admit Card must be in possession of the candidate while appearing in the examination for any course for which he / she has been allowed.

7.4 GRADE POINTS

Grade / grade point equated with percentage of marks and other grades shall be as follows:

Grade	Grade Point	% Marks	Remarks
A+	4.0	94–100	Extra Ordinary
A	4.0	85–93	Excellent
A-	3.7	80–84	} Very Good
B+	3.4	75–79	
B	3.0	70–74	Good
B-	2.7	67–69	Above Average
C+	2.4	64–66	Average
C	2.0	60–63	Satisfactory
C-	1.7	57–59	Adequate
D+	1.4	54–56	} Pass
D	1.0	50–53	
F	0.0	Below 50	Fail
P	–	50–100	Pass in Non-Credit Course
IP	–	–	In Progress*
X	–	–	Exempted
I	–	–	Incomplete
W	–	–	Withdrawal
WU	–	–	Withdrawal Un Officially

* To be evaluated in Spring Semester for Final Year project or any specified Design course

7.5 GRADE POINT AVERAGES

Grade Point Average (GPA) for any semester and Cumulative Grade Points Average (CGPA) for more than one semester shall be calculated as under:

$$CPA / CGPA = \frac{\sum (\text{credit hours of a course} \times \text{grade point})}{\text{Total Credit hours of the courses}}$$

7.6. MARKS DISTRIBUTION

Marks distribution for each final examination and sessional evaluation shall be as under:

Each theory paper, practical, design course (studio work) and Final Year project shall have 60% marks for final examination and 40% marks for sessional evaluation.

7.7. AWARD OF DEGREE

- 7.7.1 Any student who was admitted in First Year and has passed all courses as prescribed for his/her Discipline with CGPA of at least 2.0 shall be eligible for the award of Degree in that Discipline.
- 7.7.2 Any student who was admitted directly in Second Year on migration from any recognized Institution and has passed all courses as prescribed for that Discipline with CGPA of at least 2.0 shall be eligible for award of a Degree in that Discipline. The course(s), if any, in which the student was allowed exemption on the basis of having studied the course(s) in the former Institution shall not, however, be counted for determining his/her GPA/CGPA.
- 7.7.3 Any student who was admitted directly in Third Year, Bachelor of Mechanical Engineering Programme on the basis of Associate Degree in Marine Engineering Programme of this University and has passed all courses of Third Year onwards as prescribed for Mechanical Discipline with CGPA of at least 2.0 shall be eligible for the award of Degree in that Discipline.





CHAPTER 8

Fee Structure





8.1 FEE AND CHARGES (NON-REFUNDABLE)

8.1.1. For Main Campus, LEJ and City Campus

- a) Admission Fee to be paid once at the time of Admission For locals
- | | |
|--------------------------------|--------------|
| In BE, BS (CT) and B. Arch | Rs. 47,500/- |
| In all remaining BS Programmes | Rs. 47,500/- |
| BS (CT) Programmes | Rs. 51,460/- |
| For Foreigners | Rs.338,000/- |
- b) Following fee and charges to be paid at the start of each semester:
- i) Semester (Tuition & Examination) Fee:
- For all BE, BS (CT) and B Arch programme *Rs.46,670/-
 - For all remaining BS Programmes *Rs.46,670/-
 - For Local BS (CT) Programmes *Rs.52,100/-

NB: All deserving candidates are paid scholarship against tuition fee from Merit/Need based Scholarship subject to the availability of funds.

- ii) Students Facilitation Charges *Rs.6,875/-
- iii) Studio Fee (For Architecture Department only) *Rs.2,000/-
- iv) Bench Fee (For BS Industrial Chemistry only) *Rs.1,500/-
- c) If applicable, fee (Tuition and Examination) for one course *Rs. 6,500/- (*subject to revision).

8.1.2. For Thar Institute of Engineering, Sciences and Technology (TIEST)

- a) Admission Fee to be paid once at the time of Admission: Rs. 48,335/-
- b) Following fee and charges to be paid at the start of each semester:
- i) Semester (Tuition & Examination) Fee *Rs.52,100/-
- NB:** All deserving candidates are paid scholarship against tuition fee from Merit/Need based Scholarship subject to the availability of funds.
- ii) Students Facilitation Charges *Rs.10,000/-
- b) If applicable, fee (Tuition and Examination) for one course *Rs. 6,500/- (*subject to revision).

8.2 CHARGES UNDER SELF-FINANCE SCHEME

- a) Self-Finance Fee must be paid in designated branches of the bank and copy of receipt/ challan enclosed with Application Form; which shall not be refunded if admitted under the scheme on payment of Fee and Charges mentioned in Para 8.1 above.
- i) Categories SF-1 to SF-5 Rs. 825,000/-
- ii) Categories SF-6 to SF-11 Rs. 1,025,000/-
- iii) **Candidates applying against more than one category under Self Finance Scheme may only deposit Self Finance Fee for any one category. In case of difference in amount of Self Finance, the highest amount needs to be deposited.**

8.3 SECURITY DEPOSIT

Security deposit** of Rs.14,000/- is included in the admission fee to compensate breakage and or any other damage, if any, caused by the student. This deposit or such balance as may be available out of it, shall be refunded to the student whenever he/she ceases to be student of the University.

** For TIEST Rs 15,295/-

8.4 MISCELLANEOUS FEE

Document	Ordinary	Urgent
a) Mark Certificate	Rs. 1,750/-	Rs. 3,000/-
b) Transcript	Rs. 2,000/-	Rs. 4,500/-
c) Degree	Rs. 3,450/-	Rs. 6,900/-
d) Duplicate Degree	Rs.10,350/-	Rs.20,700/-
e) Provisional Certificate	Rs. 4,500/-	
f) Re-totalling of Answer Book (per script)	Rs. 2,500/-	

8.5 HOSTEL CHARGES

(No boarding will be provided by the University; however, canteen facilities are available. Karachi resident are not eligible)

1. Muhammad Bin Qasim Hostel I & II & Girls Hostel:

- (a) **Room Rent**
- i) Cubicle Rs.1,035/- per month
- ii) Dormitory Rs. 805/- per month
- (b) **Service Charges** Rs.1,035/- per month

2. International Hostel:

- Dormitory Rs.7,000/- per month

3. New Building:

- Dormitory Rs.3,000/- per month

4. Hostel Security Deposit (Refundable):

- i) For Locals Rs.5,000/-
- ii) For Foreigners Rs.20,000/-

NB: All hostel charges will be taken in advance on semester basis.



8.6 FEE REFUND POLICY

8.6.1 Admission Fee

Any student after being admitted requests for cancellation of admission shall have refund of his/her paid fee dealt as under:

- In case of applying for cancellation of admission and refund of fee before commencement of classes shall have all fee refunded except of Admission and Medical Examination Fee.
- In case of applying for cancellation of admission and refund of fee during first week of commencement of classes shall have 50% of the rest of fee refunded whereas the security deposit will be completely refunded; however, his/her Admission and Medical Examination Fee shall be forfeited.
- In case of applying for cancellation of admission after first week of commencement of classes shall ONLY have the security deposit refunded.

8.6.2 Self-Finance Fee

After being provisionally admitted under self-finance category, the Self-Finance fee refund will be as under:

- In case of admitted student applying for cancellation of his / her admission and refund of fee before

commencement of classes shall have all self-finance fee refunded.

- In case of applying for cancellation of admission and after commencement of classes shall have 50% of Self-Finance amount deducted. In any case, the request for such cancellation of admission should reach to Registrar Office before commencement of Mid-Term Examination of First Year-Fall Semester.
- Those candidates having failed to secure minimum marks percentage in HSC or equivalent Examinations i.e., 60% for all engineering, architecture and CT Programmes (55% of the rest of BS Programmes) shall have an amount equivalent to 5% of Self-Finance shall be deducted.

8.7 OTHER EXPENSES

- The student may find it convenient to own some books of fundamental nature which help him not only in the First Year but throughout his/her stay at the University and even beyond. Judicious purchase of such books with the guidance of his/her teachers is recommended. An outlay of about Rs.25,000/- in the first instance for books and stationery should generally be adequate. In addition, he is expected to own drawing instruments, scientific calculator and sets of tools which may require additional Rs.10,000/-.







CHAPTER 9

Scholarships Stipends And Awards



9.1 ASSISTANCE SCHOLARSHIP

- The Assistance Scholarship is awarded subject to availability of funds to provide monetary assistance to needy students and is of the value of Rs.5000/-per annum.
- The Vice-Chancellor shall have the discretion to select students for award of Assistance Scholarship by taking into consideration the financial and other circumstances, the academic record and conduct of the students.

9.2 SCHOLARSHIPS

Various Scholarships are available for the meritorious and deserving students of this University. Previous year,

approximately 1766 Scholarships (Higher Education Commission (HEC) / Private / Government Funded Scholarships) have been disbursed to the students of different disciplines.

NB: Absence from or failure in a University Examination, lack of progress and assiduity in studies, breach of discipline or reprehensible conduct shall entail the loss of scholarships granted to any student.

9.3 MERIT GOLD MEDALS & CERTIFICATES

A Merit Gold Medal will be awarded by the University to each student securing the first position, in order of merit at the final of all Bachelor's Degree Examinations.





CHAPTER 10

Supporting Infrastructure and Students Facilities





10.1 ENGR. ABUL KALAM LIBRARY

Since its inception in the City Campus, Engr. Abul Kalam Library <https://eakl.neduet.edu.pk/> has grown to become one of the leading academic libraries particularly focusing engineering, sciences and technology of the country. The library devotes considerable efforts and resources to the development of an outstanding library collection to meet the needs of the students, faculty members and researchers of the University. Services and facilities of the library are governed by the library regulations. The Library has its Mobile App “AMBITION” available on Google Play Store. It provides the Library OPAC and online library services.

The Library comprises of two buildings adjacent to each other. The reference and administrative building consists of three floors having numerous seating capacity for the library users. The building adjacent to this comprises of with Circulation Section on the ground. Departmental libraries have also been setup in remote campuses; City Campus, LEJ Campus, TIEST Campus as well as selected teaching departments at main campus.

Library collection is the impressive blend of traditional information resources and scholarly electronic resources. The collection includes:

- Textbooks of common interests.
- Reference books including encyclopedias, handbooks, dictionaries, manuals etc.
- Periodicals on current lists of subscription as well as volumes of back issues of local and international scholarly journals; magazine and newspapers.
- Government documents & Archive material including Acts and Ordinances, Services Rules, Statistical reports, Census reports, Survey reports, Planning reports, Budgets etc.
- Non book materials, CD-ROMs, DVDs etc.
- Digital contents including databases of e-books, e-journals, e-thesis, e-dissertations etc.

Reference Section provides reading / reference services to the library patrons. Textbooks and reference materials including audio visual material, periodicals and government documents are restricted to be used within the premises. The collection is secured against theft using state-of-the-art RFID security gates and surveillance CCTV cameras. Library has a separate bag deposit room at the main entrance of the Library.

The library provides book lending services through the Circulation Section to students, faculty members, researchers and other employees of the University as per rules laid down. The section also comprises of Anila Azam Reading Room. However, the Book Bank caters undergraduate students only and provides textbooks on rental basis for entire semester. The library also conducts Library Orientation to new comers and organizes Book Fair annually.

The library keeping pace with emerging technologies has its own Koha: Library Management System including Website, Library OPAC and Portal Services. Wi-Fi access points and Digital Notice Board are also available to facilitate the library users. The Health, Safety, Environment initiatives include fire alarm and emergency exits, wheelchair ramp for disable persons, first aid for people moving in the Library.

A computing facility comprising of latest configuration computers provides digital services to its users such as access to e-books and e-journals through the National Digital Library Program of HEC. All these resources are accessible in the campuses as well as from home through the NED VPN. Further, internet, printing, scanning facilities including copying facility of e-contents of non-book material are also available in the Library.

The library is committed to providing a pleasant, user-oriented learning environment for its users. Its endeavors are to make its resources available and useful to its users and to sustain and preserve a universal collection of knowledge for future generations.

10.2 INFORMATION TECHNOLOGY (IT) DEPARTMENT

The University has its own Internet facility managed by its Information Technology (IT) Department (formerly Internet Centre) established in 1998-99. The Information Technology (IT) Department since its establishment has played a pivotal role in developing the varsity's I.T. infrastructure by providing robust Internet facility to its users within and outside of its campuses. The department is equipped with the state of the art networking equipment and acts as a central IT hub providing services like Internet, CMS, Web, Network Operations and Support Services round the clock. Continuing the expedition in producing the best in the Country, this Department also hosts corporate training for its faculty and staff along with the video conferencing facility enabling its Faculty and Students to join the rest of the Engineering and Technological hubs of the world.

10.2.1 NETWORK & HARDWARE Internet Facility

Internet as the sole of research and education is also considered the bedrock of learning by NED. Coping up with the ever growing technology standards, the university continuously extends its services and infrastructure. Currently the university boasts a bandwidth of over 750Mbps along with highlighted infrastructure and services as under;

- **Data Centre:** NED University has transformed its network and data services by establishing its state of the art Data Centre. The data Centre comprises of 5 server racks along with 3 network racks. Capable to host 90 servers with 4.8Gbps bandwidth connectivity per rack. The sole aim is to provide efficient services while ensuring high standards.
- **FO LAN:** State of the art Optical Fibre LAN to every facility in the university.
- **Broadband connectivity:** Robust high bandwidth connectivity for every connected user (upto 8 mbps).
- **Smart University:** HEC Smart University campus wide WiFi giving robust secure Broadband connectivity to the users (students, faculty and staff) to all users of Main campus, LEJ and City Campus.





- **Inter Campus connectivity:** All remote campuses (LEJ, City) and the constituent college Tiest are all connected over VPN to the Main Campus thus providing all Extranet/Intranet facilities as in the Main campus.
- **NEDUET VPN:** VPN for researchers and students giving secure access to HEC Digital Library and NEDUET Portal services.

10.2.2 Online Learning Management System

Pioneering the policy for online higher education; NED has not only transformed its teaching mechanism for online delivery but also played a pivotal role in devising the overall online teaching strategy at the national level through HEC. During the pandemic, turning the problem in to an opportunity the NED had transformed its education system and policies according to the demanding situation of online distance learning. A well-orchestrated plan of technology deployment (termed as NEDUET LMS combining GSuite, NED Portal, NED VPN etc.), training and adoption by faculty while focusing on the development quality digital content, its timely delivery in addition to modified examination policies enabled quality education to the students, their proper participation and analysing the overall outcome in terms of examination.

10.2.3 Hardware Maintenance and Inventory

Department also provides hardware and software support services in addition to managing hardware inventory and technical feasibility services.

10.2.4 Video Conferencing Facility

This University has a centrally located Video Conferencing Facility Centre through which NEDUET connects to any part of the world, locally and Internationally to connect and communicate with video and voice facility for the arrangement of virtual classes (online classes), conferences, seminars, Internet meetings (video conferences) among multiple locations, as and when required. This facility is available round the clock.

10.2.5 Information Systems and Software Section

The IT Department focuses on delivering state-of-the-art software using Agile Methodology with Faster Development time and uncompromising integrity, some of them are as follows; Undergraduate and Postgraduate Students Management System, Human Resource Management System, Attendance Information System, Shuttle Pass System, Hostel Management System, LTV Management System, Security Operations Management System, Statutory Bodies Management System, Academic Performance Monitoring System, Scholarships Management System and Internship management system. A part from MIS several web based applications are also developed by IT department which are playing vital role in automation of some core university processes e.g. Online semester registration of undergraduate and postgraduate, online feedback collection of undergraduate and postgraduate and Online Admissions. This comprehensive and

sophisticated development effort as a whole is termed as NEDUET Campus Management System (NEDUET-CMS).

To access information contained within CMS, Every employee and student on Intranet uses a front end interface known as NEDUET Campus Portal. NEDUET Portal is a 24/7 service. Portal works on the principle of Single sign on for multiple applications with personalized, secure, and robust and role based access management.

With the aim of facilitating Undergraduate students, Portal dedicated online Students Interface is enriched with the following features:

- Availability of Personal and Academic Profile
- Subject wise to-date Attendance Status
- Classes and Examination Schedules
- Special announcements from course Teachers
- Access to study material uploaded by course teacher
- Access to Personal letters issued from Registrar Office
- Availability of Portal Notice Board showing recent notifications and announcements from Registrar Office.
- Option to apply/track/withdraw online for the posted internships
- Semester registration details of regular and backlog courses
- Online feedback of course, teacher and learning resources
- Availability of Admit card and Transcript by integrations with Examination portal.

10.2.6 Research & Development Section

The Research & Development Section of IT Department working with main objective of providing a centralized high performance parallel computing facility to the entire University in particular and to the universities of Pakistan in general, for Research and Development in any of the Engineering disciplines. The facilities are primarily meant to be utilized at the postgraduate and PhD level. It has, therefore, been facilitated with the most advanced hardware and software keeping in view the Research and Development needs of the country in virtually all the engineering disciplines. High-end workstations with excellent graphics support and computational power are available for the researchers to assist them in their research work.

The University has the distinction of being the first Public Sector University of configuring and developing its own Linux based 50 nodes cluster with the technical assistance of its own IT force. The system was developed in the year 2003 and became functional in 2004. The State-of-the-art hardware that includes Intel Xeon processors, Gigabit Ethernet connectivity, high-tech system as well as management software has been used for Cluster development that provides tremendous increase in performance and throughput. The System is capable of executing complex engineering problems efficiently and with great accuracy. This facility has enabled researchers and creative professionals to exploit heavy computational and bandwidth-conscious software like Fluent, Ansys, MATLAB, Cadence, OPNET etc., and perform heavy simulations and modelling exercises with ease. Recently, one new high performance computing cluster based on 64-bit architecture has been developed. The latest core processors





technologies with branded high tech systems are procured. This cluster is now fully functional. With storage capacity of these systems reaching terabyte (TB) and memory capacity in gigabyte (GB), the computation on these are producing fast results.

All facilities available at the Centre can be accessed on campus over the University LAN and it can also be accessed from remote locations. The centre also extends its service to the engineering industry and other professional organizations involved in Research and development work.

The section also has a very large database of multidisciplinary software with a high number of licenses for some distinct software. Several of these softwares have the feature of executing tasks in parallel and utilizing the computing power of our clusters. The software repository will attract the research to pursue their academics research using these softwares under the terms and conditions of NED University. In addition, Research & Development section also has a training facility where seminars and workshops related to different software are conducted throughout the year for the faculty and students of the University.

10.3 INSTRUMENTATION CENTRE

A state-of-the-art Instrumentation Centre is functioning at the University which was established under a grant provided by the Higher Education Commission (HEC). Its capabilities include calibration of multi-meters, energy meters, circuit breaker testing, pressure/ temperature gauges, water quality, etc. The Centre has well equipped facilities and the necessary expertise for performing calibration activities, testing and analysis service, corporate training related to instrumentation, and design services for the local industry as well as other academic institutions in the country. Services of the instrumentation centre are subscribed by multinational and national companies operating in Karachi as well as other universities present across Pakistan. It also provides training to undergraduate and postgraduate students, and assists Undergraduate students in undertaking final year projects of various disciplines. In addition, it assists other University departments in their R&D activities as well. The Centre comprises of various well-equipped Laboratories such as Electronics and Signals Lab, Pressure and Temperature lab, Equipment Testing Lab, Water Quality and Weight Lab and a Virtual Instrumentation Lab. In particular, the Virtual Instrumentation Lab is equipped with world renowned National Instruments' (NI) LabVIEW system which helps engineers in basic data acquisition and signal processing as well as more complex embedded monitoring and control applications. The NED University lays emphasis on efforts in contribution towards research and improvement in quality of its human resource by providing good and up-to-dated facilities for utilisation by its student, academicians and researchers. The Instrumentation Centre is one such effort.

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In particular, the Virtual Instrumentation Lab is equipped with world renowned National Instruments' (NI) Labview system which helps engineers in basic data acquisition and signal processing as well as more complex embedded monitoring and control **applications**. For formal classroom lectures, a small but well-equipped Training Facility also exists.

The NED University lays emphasis on efforts in contribution towards research and improvement in quality of its human resource by providing good and up-to-dated facilities for utilisation by its student, academicians and researchers. The Instrumentation Centre is one such effort.

10.4 NED ACADEMY

The Training Wing, NED University of Engineering & Technology, with a clear goal of "Grooming Professional Leaders for Tomorrow". NED Academy caters to educational and professional training needs for continuously upgrading youth and working professionals. NED Academy promises ambitious learners belonging to any educational background and at any level a chance to choose, broaden, and enhance their careers. The opportunities provided through our courses ensure professional excellence for anyone ambitious with life goals. NED Academy stands for not only professionally sound education but also believes in creating multi-talented profiles that have the flexibility and depth to be oriented easily toward the ever-changing dynamics of professional deliverance via working with techno-managerial skills along with leadership & entrepreneurial skills to achieve personal, and professional, organizational and national success.

OBJECTIVES OF NED ACADEMY

- Updating professionals with state-of-the-art developments in engineering/sciences/technology/engineering management/leadership skills/ Digital skills/ soft skills/ CAD & CAE skills/ linguistic/ entrepreneurship etc.
- Providing learning opportunities for improving career growth and making our professionals globally competitive
- Providing hands-on learning opportunities for vocational and technical training to improve industry employability & growth
- Offering structured courses, certification programs, international exam preparations, undergraduate and postgraduate diplomas, and other programmes in market-oriented disciplines for the creation as well as sustainable development of globally competitive human capital.

ACADEMY CONTRIBUTIONS TOWARDS SOCIO-ECONOMIC DEVELOPMENT OF PAKISTAN

NED Academy is endeavoring to create the mindset and right human capital at all levels starting from our youth to our engineers to other professionals to top leaders of technical or non-technical organizations. With this spirit, we have our door open for all types of audiences including the underprivileged and endorse who lack finances to support their development and career progression. To achieve the same NED Academy always





reaches out to our alumni and philanthropists to help NED Academy to develop a sustainable mechanism for not only managing the training cost of such an audience but also enhancing the effectiveness of academy ventures by institutionalizing state-of-the-art labs, smart classrooms, online training setups, virtual training setups, etc. We already have a financial assistance mechanism for supporting the financially constrained participants with limited funding coming from external sources. We strongly believe that with continuous support by NED Alumni and other philanthropists, NED Academy can create a much larger impact on the socio-economic front than what it has been able to achieve now.

CENTRES OF NED ACADEMY

Centre of Continuing Engineering Education (CCEE)

Centre for Continuing Engineering Education, the most active wing of NED Academy enables professionals to attain higher levels of research, teaching, and industrial cooperation for technical leaders for constant learning by empowering them with the relevant knowledge, skills, techniques, and technology base to help them outshine in their careers. It brings together new practitioners, technologies, and experiences for the mutual benefit of all concerned. CCEE regularly conducts short courses to update engineers, and professionals with recent developments in engineering, management, IT, and Sciences. It provides opportunities for working engineers to improve their qualifications to meet the professional body's registration level after successful completion and to enhance their skills to improve employability.

Centre for Multidisciplinary Postgraduate Programmes (CMPP)

Centre for Multidisciplinary Postgraduate Programmes facilitates executives, mid-career phase, and novice professionals to the next level of excellence. The center offers more than thirty-five Postgraduate Diplomas (PGDs) and more than fifty Postgraduate Certificates (PGCs) in a range of diversified and highly sought-after disciplines including Computer Science & IT, Engineering, Engineering Management, Management Sciences, Textile & Garment, Basic sciences, English Linguistics, and English Language Teaching. The center has remarkably expanded its scope and programmes since 2020 and continuously endeavors to broaden its horizon to cater to the needs of the national and international professional community.

KEY DOMAINS OF NED ACADEMY

NED Academy, a name of guaranteed excellence, is well aware of the challenges faced by graduates and professionals in the real world. To assist them in conquering these hurdles, NED Academy conducts a series of programmes in various domains. Some of them are as follows:

- Professional Short Courses
- Career Advancement Certifications

- Postgraduate Certificate Courses
- Postgraduate / Undergraduate Diploma Programmes
- Corporate / In-house Trainings
- Professional / International Certifications
- Software based Training / CAD / CAE
- Technical Courses / Hands-on Trainings / Vocational Trainings
- Youth Engagement & Development Programmes
- Leadership Trainings
- Managerial Trainings
- Executive Trainings
- Soft-Skills Certifications

10.5 COWASJEE EARTHQUAKE STUDY CENTRE

Cowasjee Earthquake Study Centre (CESNED) was established in 2001 after the devastating Bhuj earthquake. The Centre is currently administered by the Department of Earthquake Engineering. The objectives of this centre include (a) housing national and global data pertaining to earthquake; (b) to act as a centre for disseminating accumulated knowledge; (c) to respond to the emergency needs; and (d) be able to providing guiding principles for pre and post disaster earthquake mitigation. It has become a hub of the earthquake related activities with time. The vital role played by CESNED after the 2005 Kashmir earthquake led to its recognition as one of the two earthquake study centres in the Country.

10.6 SHAKE TABLE TESTING FACILITY

The Shake Table laboratory is a state-of-the-art facility which is available in the Department of Earthquake Engineering. The facility is used to simulate real time earthquake ground motion to record the dynamic response of a given structure placed on the table.

10.7 ADVANCED MATERIAL TESTING FACILITY

The Advanced Material Testing laboratory is a state-of-the-art facility which is administered by the Department of Earthquake Engineering. The facility is used to conduct full scale static and pseudo dynamic testing of various structural components of buildings and bridges.

10.8 PCB FABRICATION LABORATORY

A PCB fabrication Laboratory is available in the Department of Electronic Engineering. This is primarily for training and facilitating under-graduate students in PCB fabrication technology. The laboratory is supported by PCB layout design software and auto routing software. The graduating students with this experience are expected to benefit in their professional field. The Laboratory is being used for fabrication of PCB for local requirement and possibilities of taking orders for external agencies is being examined.





10.9 PRODUCT DEVELOPMENT CENTRE

Additive manufacturing technologies, more commonly known as "Rapid Prototyping" or "3D Printing" have been used by design and manufacturing organizations for concept modeling and prototyping as well as for various applications such as jigs, fixtures, check gauges, and even as a bridge-to-tooling and low-volume end-use parts. Emergence of these technologies have led manufacturing organizations to reduce their product development cycle time and improve product quality and customization. Global acceptance and application of these technologies have put the manufacturing industries of Pakistan to face strong challenges in terms of high-quality product development processes.

The Product Development Centre (PDC) of NED University has been equipped with state-of-the-art equipment and tools that enable complete reverse engineering and additive manufacturing of products. The equipment available at PDC includes a Faro Arm and a Laser Scanner for reverse engineering of products and a Fused Deposition Modeling (FDM) machine alongwith a vacuum casting equipment to build parts directly from CAD data (i.e. tool-less manner). Different CAD packages are also used to complete the process of product development.

10.10 DIRECTORATE OF INDUSTRIAL LIAISON

The Directorate of Industrial Liaison (DIL) was established at NED University of Engineering & Technology in 1997 with the primary aim of fostering and strengthening University-industry connections through various initiatives such as internships, study visits, final year projects, and job placements. objectives of DIL are to create and enhance the required University-industry Linkages in the form of various activities like activities like internships, study visits, final year projects and job placements.

DIL has been actively involved in organizing internship opportunities for student during vacation periods across different organizations and industries as per academic calendar.

The Cooperative Education Program, which integrates classroom education with practical work experience, addresses the gap between academic curriculum and industrial practices. Through this program, students from their first year undergo industrial training alongside their studies, facilitating a smoother transition from education to employment. Meritorious students will continue to do internship during their semester breaks until graduation.

Additionally, DIL arranges regular study visits for students and faculty to gain practical exposure to various industries. It also provides assistance to organizations in terms of research and expert engineering services through teaching faculty.

DIL plays a pivotal role in a facilitating final year design projects by collecting topics and arranging technical assistance from industries. It encourages on-campus hiring activities and provides support to prospective employers for recruitment processes. Various multinational companies, overseas employers, local business groups and small and medium enterprises (SMEs) benefits from these services.

To bridge the gap between academia and industry further, DIL has developed a LinkedIn page to connect students with companies and industries, facilitating professional networking and career development. Additionally, it shares Graduate Directories with employers, organizes career fairs, pre-employment orientation programs, and online carer counseling sessions tailored to meet the diverse needs of university students.

In its commitment to promote the engineering profession, DIL has also signed Memorandum of Understanding (MoUs) with various industrial organizations to establish long-term collaboration and cooperation frameworks for training, consultancy, research and development, benefiting both parties and positively impacting society and the environment.

10.11 OFFICE OF RESEARCH, INNOVATION AND COMMERCIALIZATION (ORIC)

The Office of Research, Innovation and Commercialization (ORIC) at NED University (ORIC-NEDUET) was established with an aim to provide strategic vision and operational support to the University's research activities. From its inception, ORIC is committed to play an active role in facilitating the University's research and encourage the faculty and students to contribute and share in promoting goal-oriented research activities. ORIC also aims to act as a catalyst for the transformation of knowledge towards invention and innovation and its subsequent commercialization leading to a positive impact on the welfare and well-being of our nation. The ORIC-NEDUET is ranked in 'W' (Top Ranking) by Higher Education Commission (HEC) of Pakistan with highest points in 'Research Excellence' among Pakistani Universities.

10.11.1 Objectives

Since its inception, ORIC has adopted its mandate to enhance the environment for all research commercialization and innovation activities: Following are the core objectives of ORIC:

1. Developing the university's strategic research and commercialization directions and policies
2. Increasing and diversifying research funding
3. Improving integration of research and education
4. Strengthening university-industry relationship
5. Promoting entrepreneurship and business development through its Business Incubation Center (BIC)
6. Protecting University's intellectual property and implement approved policies pertaining to research commercialization and business development





10.11.2 Initiatives and Activities

In pursuance of the Vice Chancellor's directives for the management of research initiatives and Programmes, ORIC has worked to re-enforce the existing research and development activities at NED University. Many activities were planned and successfully executed for sustaining and improving the research, innovation and commercialization having an impact for the improvement of areas concerning economic, industrial and academic development and their accelerated advancements for achieving the national objectives.

10.11.3 Organizational Support

In order to maintain an environment conducive for the generation of knowledge and to provide recognition to individual inventors, encouraging the development and dissemination of useful inventions to society, ORIC has gotten approved the University's Intellectual Property Policy and Collaborative Research Policies from relevant statutory bodies. Besides, ORIC has also developed a comprehensive NED-Research Strategic plan which presents a holistic overview of the NEDUET research and innovation activities and provides a guideline for technology development and its subsequent commercialization.

10.11.4 Research, Innovation and Technology Commercialization

ORIC-NEDUET primarily manages the following:

- 1) Research Grants Management,
- 2) Research Linkages, Coordination and Networking
- 3) RIC Policy and IP Legislation
- 4) Patents, Trademarks and Design
- 5) Commercialization and IP Licensing
- 6) Innovation and Commercialization Linkages, Coordination and Networking.
- 7) Sustainability
- 8) Training, Mentoring and Workshops
- 9) Promoting Technology Transfer between NEDUET and Industry

Our mission is to promote the transfer of NED University ready to commercialize technologies for society's use & impact and benefit while generating unrestricted income to further support research and education. Technology Transfer/IP Office receives invention disclosures from faculty, staff and students. TTO at ORIC evaluate these disclosures for their commercial possibilities, and when possible license them to industry. If the inventions are successfully licensed, cash royalties collected by ORIC provide funding to the inventors' departments and schools, as well as personal shares for the inventors themselves. Technology is typically transferred through an agreement in which NED grants to a third party a license to use NED's intellectual property rights in the defined technology with exclusive/non-exclusive rights. The intellectual property office at ORIC is established to manage inventions created by faculty, staff and students. The office provides complete management from evaluation to protecting the inventions. When you submit an Invention Disclosure Form to the IPO section of ORIC, it is assigned

to a IP Manager within one week of submission. Each disclosure is then evaluated for commercial potential and patentability by TTO. With input from the steering committee of ORIC, inventors, assessment of patentability is performed by the technology transfer manager in consultation with patent attorneys and/or literature search specialists. IP section at ORIC provide filling services for the Patents, Copyrights, Trademarks, Industrial Design. For the commercialization of the laboratory facilities available within NED University, ORIC has launched a Lab Commercialization Programme. Under this Programme ORIC is closely working with more than 28 Research centers across the university including state of the art National Research Centers as follows:

- 1) National Center for Robotics and Automation (NCRA)
- 2) National Center for Artificial Intelligence (NCAI)
- 3) National Center for Cyber Security (NCCS)
- 4) National Center for Big Data and Cloud Computing (NCBC)

10.11.5 ORIC Capacity Building Initiatives

ORIC organizes seminars, workshops, and trainings for the students and faculty members on various aspects of R&D, IP and commercialization. For this purpose, ORIC has collaborated with relevant organizations like HEC, HEDP, i2i, IPO, WIPO etc., to take on board experts for conducting training and capacity building exercises.

10.11.6 Industry and Institutional linkages for Commercialization

It is a strong belief of ORIC that Industry-University collaboration can be mutually beneficial by combining the best academic thinking with the expertise of industry. In this regard, Director ORIC and his team is heavily connected with Industries and Industrial Trade Associations across the Country. There is a strong intent in the NED faculty and students to participate extensively in collaborative research Programmes with the industries which may lead to successful technology transfer upon conclusion. In order to establish and strengthen University Industry collaborations to stimulate industrial research, ORIC has been engaged with different industries, organization and companies bringing projects in the university as per the industry needs for locally manufactured R&D solution and offering students with project apprenticeship. Moreover, ORIC is actively facilitating the inventors in seeking industrial partners to transfer their developed technology or product.

The purpose of Institutional collaborations is to promote mutual understanding and scholarly alliance by supporting academic and research activities among faculty and students. Specific areas of cooperation between institutions are multi-disciplinary Joint research, applying for funding for joint research, Publication jointly authored by the faculty, Exchange of academic materials and other information; Jointly patenting the product that may produce as a result of joint research, Leveraging research and network of subject matter experts, Access to the state-of-the-art labs of two universities for research purpose, Develop opportunities for exchange of trainings, conferences, workshops and academic meetings, Support commercialization activities of partnered institutions within the scope of work.





10.11.7 Business Incubation Centre (BIC)

NED University of Engineering and Technology with the vision of becoming the first entrepreneurial university in the region developed its Business Incubation Centre (BIC) in 2015. BIC is an initiative to create an ecosystem for incubating Tech Start-Ups, particularly in the field of engineering. It aims to assist engineering students shape their innovative idea into revenue generating business model whilst giving opportunities to commercial partners for investing in businesses that have potential to lead the new industrial trends. BIC-NEDUET is mainly focused on innovative ideas and engineering projects, which generate far more value than other categories of startups. With most wealth generated by technology companies as of today, BIC seeks to improve Pakistan's economic standing by leading future tech startups within this country. BIC aims to capitalize the latest technological trends with the large engineering talent available at NEDUET's disposal and lead the future industry trends in the country. Being a business incubator, BIC's main goal is to produce successful firms that will leave the program financially viable and freestanding. BIC graduates have the potential to create jobs, revitalize neighborhoods, commercialize new technologies, and strengthen local and national economies.

The aim of BIC-NEDUET to create a vibrant and sustainable ecosystem on University campus for nurturing and enrichment of Creativity, Innovation and Entrepreneurship. We are committed to nurture and support creativity, innovation and entrepreneurship amongst students, faculty members and other aspirants for establishment and growth of technology businesses to meet the social obligations and economic growth of our communities.

BIC, in partnership with relevant institutions and industrial representation execute capacity building exercises throughout the year. Our long-lasting partners include SMEDA, i2i, HEC, HEDP, Shell Tameer, Stimulus Pvt. Ltd etc. BIC operations and programmes include but not limited to:

- **Pre-Incubation Programme under National Idea Lab (NIL):** BIC executes annual pre-incubation programme targeted to hatchery level or idea level startup teams or individuals. This programme includes ideation, problem formulation, prototyping, business plan development, team formulation.
- **Incubation Programme:** BIC executes annual incubation programme where the incubated startups go through various capacity building exercises like business development, go to market strategy, financial management, company registration and legal aspects about running business, customer segmentation etc. The programme is targeted to facilitate startups in enter market successfully and start generating revenue. Successful startups may even reach a stage where they may opt to proceed with pre-seed/seed funding.

- **Post-incubation support for startup grants and funds:** BIC-NEDUET has had the privilege to support startups in competing on national level seed funds and pre-seed funds opportunities like Innovator Seed Fund, National Idea Bank, PM National Innovation Award, Shell Tameer Awards etc. BIC upon need also facilitate in managing seed fund grants in coordination with funding agencies and startup awardees.
- **NED Entrepreneurship Society (NES):** NES at NEDUET operates under BIC and this society is responsible for raising general awareness on the promises and potentials of entrepreneurship through workshops, seminars, boot camps, and competitions targeted to engage the students of NEDUET.
- **Campus Companies:** Campus Companies is an initiative under ORIC that enables students to operate and establish their businesses in the boundaries of NED University, whilst providing services and products on-campus.

10.12 DIRECTORATE OF UNIVERSITY ADVANCEMENT & FINANCIAL ASSISTANCE

Directorate of University Advancement & Financial Assistance was established at NED University of Engineering & Technology in May 2013. This Directorate is housed in Old VC Office (Second Floor). The basic objectives of establishing this Directorate were to:

- Achieve financial stability through fund raising
- Strengthen University Advancement Programme
- Strengthen the quality of academic programme
- Increase and enhance the visibility and awareness of the University to the community at large and to all stakeholders

In addition to above, the UA & FA seeks to help the students, faculty, staff, alumni and friends of the University to have pride and satisfaction in having connections to the University – today, tomorrow and in fact for lifetime.

10.13 MEDICAL DEPARTMENT

Medical Department is located next to Humanities Department of this University. It is administered by Principal Medical Officer, accompanied by a Male Medical Officer and a Lady Medical Officer at Main Campus. Paramedical services are also being provided by one male and two female nurses in this department.

A colony resident qualified female nurse and an ambulance service for 24/7 are available for students and even after university working hours for hostellers, as well. Two peripheral Medical sub centres are located at LEJ and City Campuses. Paramedical coverage is available at both campuses.





There are numerous diagnostics & therapeutic modalities available in Medical Department. Emergency/ routine Outpatient Department Service (OPD), Pathological, Radiological and Electrocardiographic tests as well as ambulance facilities are available. These services are free of charges for students. .

Similarly, therapeutic support in the form of Airway, Breathing and Circulatory (ABC) assistance as well as outpatient facilities are available at both peripheral Medical Sub-Centers, i.e. City and LEJ Campuses.

10.14 STUDENT AFFAIRS DEPARTMENT

The Department of Student Affairs (DSA) is situated at first floor of Students Facilitation Centre with the aim to facilitate the students throughout their stay at this academia through a wide range of activities, services and resources that are provided to students related with their academic, co-curricular and professional pursuits. DSA offers following services to the students:

- Provides scholarships to the deserving students through Private Funded Donors, HEC and Ehsaas Scholarship, Government Funded Scholarship, etc as mentioned in Chapter 9.
- Student societies working under this department which organizes numerous activities and events as mentioned in chapter 11.
- Organizes various sports activities as mentioned at 10.15.4.
- Students are facilitated with bus passes on nominal charges as well as with concession on travelling fare for train and plane.
- Eight Canteens, six Photostat shops and one stationary shop are functioning under the supervision of this department to provide hygienic and quality food, photocopies and general stationary items on reasonable rates.
- Girls Common Room facilities (GCR) are maintained and furnished with necessary comfort for female students.
- DSA issues Clearance Certificate to outgoing students, and also facilitates the students by attesting academic documents of the students for PEC Registration and Higher Studies.

10.15 OTHER STUDENTS FACILITIES

10.15.1 Duty Society

The Society gives interest free loans to the students in need of financial help. The terms of such loans and Application Forms may be obtained from the Secretary of the Society..

10.15.2 Plain Paper Copiers

Copies of documents can be obtained from PPC at nominal cost.

10.15.3 NED Stationery Shop

There is a NED Stationary Store on the Campus for meeting the general stationary requirements of the students. It works on a no-profit basis under the supervision of Department of Students Affairs via tender process from concerned department of this University.

10.15.4 Sports Facilities

Sports Section was established at NED University in 1978, that is functioning under the Control of Students' Affairs Department. The facilities provided by the section are:

- Boys' Gymnasium
- Girls' Gymnasium (with Fitness Centre)
- Boys' Fitness Centre
- Squash Complex
- Out Door Basketball Courts
- Tennis Court
- Cricket Ground (with Turf & Flood Light)
- Synthetic Football Ground
- International Standard Synthetic Athletic Track

The Sports Section also organizes NED Interdepartmental Games and Inter Faculty Games every year for the Student of NED University, while, NED University teams participate in Intervarsity Championships that are scheduled under auspices of Higher Education Commission, Islamabad i.e. (Badminton, Basketball, Cricket, Table Tennis, Football, Volleyball, Squash & etc.).

10.15.5 Hostel Facilities

The University has following residential Hostels for Boys/ Girls situated adjacent to the Main Campus:

1. Muhammad Bin Qasim Hostel I & II and one Hostel for girls situated adjacent to the Staff Colony in Main Campus with the capacity of 35 Dormitory rooms and 20 cubicle rooms in MBQ-I Hostel and 72 Dormitory rooms and 48 Cubicle rooms in MQB-II Hostel whereas 20 dormitory rooms are in Girls Hostel.
2. International Hostel with the capacity of 55 Dormitory Rooms.

The hostel has the following common facilities: Common Room, Prayer Hall, Warden's Office. The accommodation in the residential Hostels is mainly for non-residents of Karachi and is allocated on first come-first-serve basis.

Fresh entrant for accommodation in the Hostel is required to apply online submission of application for Hostel admission is NOT Guarantee for allotment in the Hostel. Resident students are required to comply with all conditions of residence as prescribed by the University.



10.15.6 Boys' Common Room

The Boys' Common Room is provided with the facilities of indoor games, telephone and necessary reading material.

10.15.7 Girls' Common Room

A Girls' Common Room is also available. It is properly furnished with necessary comforts such as attached bath / powder room. A maid servant is also provided to the girls' common room.

10.15.8 Transport

Shuttle Bus transport may be provided by the University from convenient points. The places and charges are determined by the University and notified as such.

10.15.9 Accessibility

All students are provided an inclusive and accessible campus environment. NED University facilities are designed to accommodate diverse needs, ensuring smooth mobility and ease of access for all individuals. We continue to foster an inclusive atmosphere that empowers every student to thrive and succeed.

10.15.10 Ethical Values

NED University students are equally responsible in upholding ethical values throughout the campuses. The students are encouraged to actively embrace honesty, respect, and fairness, making ethical decisions in their academic pursuits and interactions with others. By taking ownership of their actions, NED University students contribute to fostering an environment of integrity and mutual respect where ever they are.





CHAPTER 11

Students' Activity



11.1 STUDENTS' SOCIETIES

The extra and co-curricular activities of students function under following societies:

- i) Society for the promotion of Science, Engineering and Technology (SENTEC)
- ii) Literary and Publication Society (LPS)
- iii) Debating Society (DS)
- iv) Member of Society of Arts and Intellectual Creativity (MOSAIC)
- v) Pakistan Society (PS)
- vi) Green Society (GS)
- vii) Girls Affairs Society (GIFT)
- viii) NED Photography Society (NPS)
- ix) NED SMS Alert (NSA)
- X) The NEDians Forum Society (TNF)

Each society is supervised by a teacher as adviser. In addition, University sports are managed through Manager Physical Education.

11.2 STUDENT CHAPTERS OF PROFESSIONAL BODIES

Student chapters of following Professional Bodies are also established which organise events throughout the year:

- i) American Society of Heating Refrigeration and Air-Conditioning Engineers (ASHRAE)
- ii) American Society of Mechanical Engineers (ASME)
- iii) Society of Manufacturing Engineers (SME)
- iv) Society of Petroleum Engineers (SPE)
- v) American Concrete Institute (ACI)
- vi) Institute of Mechanical Engineers (IMechE)
- vii) NED Materials Society (NMS)
- viii) Metallurgical Engineering Society (MES)
- ix) Society for Chemical Engineering (SCHEME)
- x) Society of Polymer & Petrochemical Engineers (SPPE)





CHAPTER 12

Discipline





12.1 GENERAL RULES

- i) All students of the University shall conform to the Rules and Regulations of the University and are under overall disciplinary control of the Vice-Chancellor.
- ii) Breach of rules, misconduct, irregularity in time keeping, idleness, lack or un-reasonable progress in studies etc., will render a student liable to disciplinary action including expulsion or rustication from the University. In this regard, the Vice-Chancellor is the sole and final authority.
- iii) Students who abstain themselves (for seven days at a stretch without notice) either from lectures or from laboratory work will not be allowed to resume their study until satisfactory explanation is submitted and accepted.
- iv) A student desirous of leaving the University must apply in writing and such application must be countersigned by the student's parent or guardian. Admission once cancelled shall not be restored.
- v) Students are strictly forbidden from forwarding applications, appeals or any other communication direct to any authority other than the Chairman of the Department or Vice-Chancellor and any contravention of this rule shall make the student liable for disciplinary action.
- vi) Students may be permitted to form or carry on only such associations or clubs as are provided under the Rules. Such associations or clubs must be open for membership regardless of religion, community or political opinion. In no circumstances will any association, the object or membership of which is directly or indirectly sectarian, ethnic or political, be permitted. No member of the association or club can invite any outsider in University without prior permission in writing from the Vice-Chancellor.
- vii) No functions are permitted to be held by the students in the University without prior permission in writing from the Vice-Chancellor.
- viii) The following among others, shall constitute acts of indiscipline for which action may be taken against the student or students.
 - a) Involvement in any political/ ethnic/religious disputes within University premises.
 - b) Creating law and order situation in the University premises.
 - c) Threatening /pressurising Faculty Members and/or Officers of the University inside or outside the University premises.

- d) Damaging or destroying University property.
- e) Teasing or harassing or molesting of students inside or outside Campus especially so in those of the opposite sex.
- f) Creating disturbances in Class Rooms/ Laboratories
- g) Attempting to bring any external pressures for passing examinations, exemption from attendance or any other purpose.

NB: Indulgence in any of the above acts, can result in appropriate disciplinary action which may be rustication or expulsion from the University either for specified period or for good or fines up to the maximum of Rs.20,000/=

- ix) Every student must be hanging their Identity Cards at the prominent place from where it can be visible all the time when they are in the premises.

No student will be admitted to the University unless he is in possession of the Identity Card. Duplicate Identity Card will be issued on a written request on the prescribed form on reasonable grounds, after payment of the prescribed fee.

- x) Vice-Chancellor's decision in all matters shall be final.

12.2 APPEAL AGAINST CANCELLATION OF ADMISSION

Candidates who are rusticated from the University on account of submission of forged documents at the time of their admission in this University may file appeals against such orders with the Vice Chancellor of the University within 15 days from the date of Notification alongwith a fee of Rs. 500/- (refundable in case the appeal is upheld). This provision is applicable to all students studying in this University or affiliated colleges irrespective of their First Year Batches.

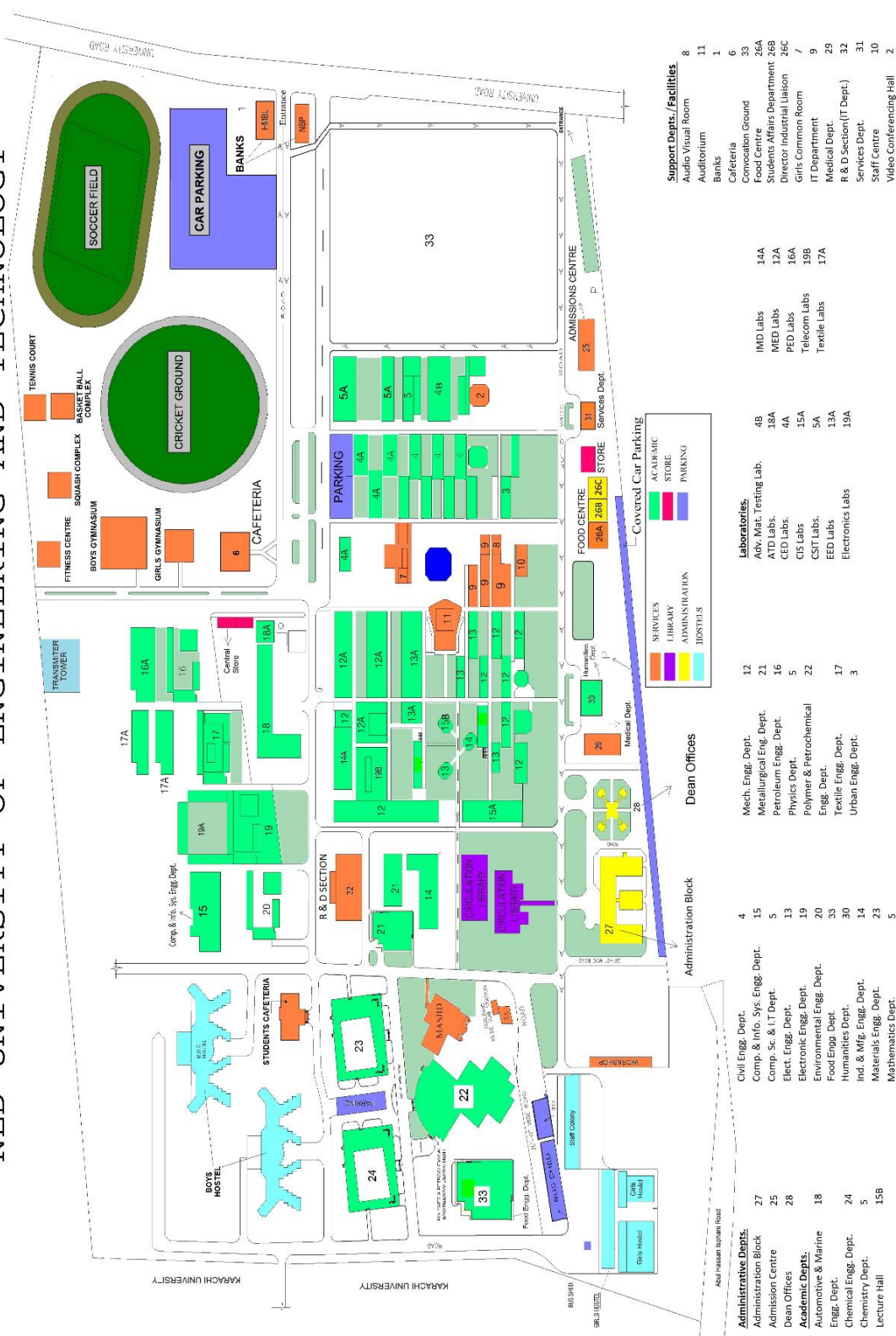
12.3 LEAVE OF ABSENCE

- i) Under exceptional circumstances, students may apply for leave of absence to the Chairman of the Department who may sanction such leave for short periods but the grant of such leave will not be acceptable as a plea for not putting in 75% of the attendance which is a pre-requisite for being eligible to appear in the University examinations.
- ii) No student is eligible to sit for the University Examination unless he/she has at least 75% attendance at the Courses, Laboratory and Practical classes.

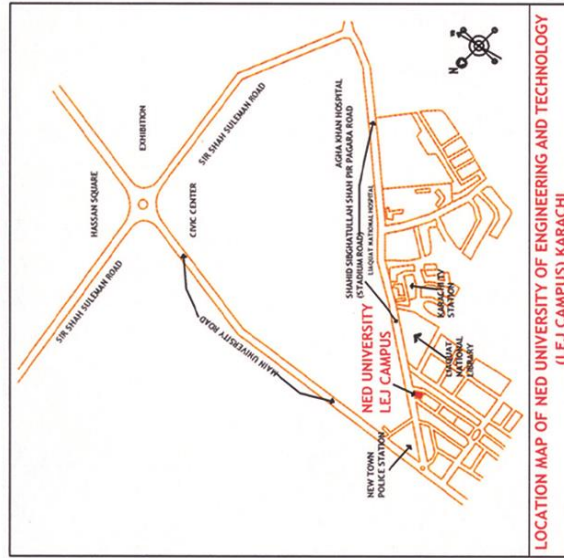




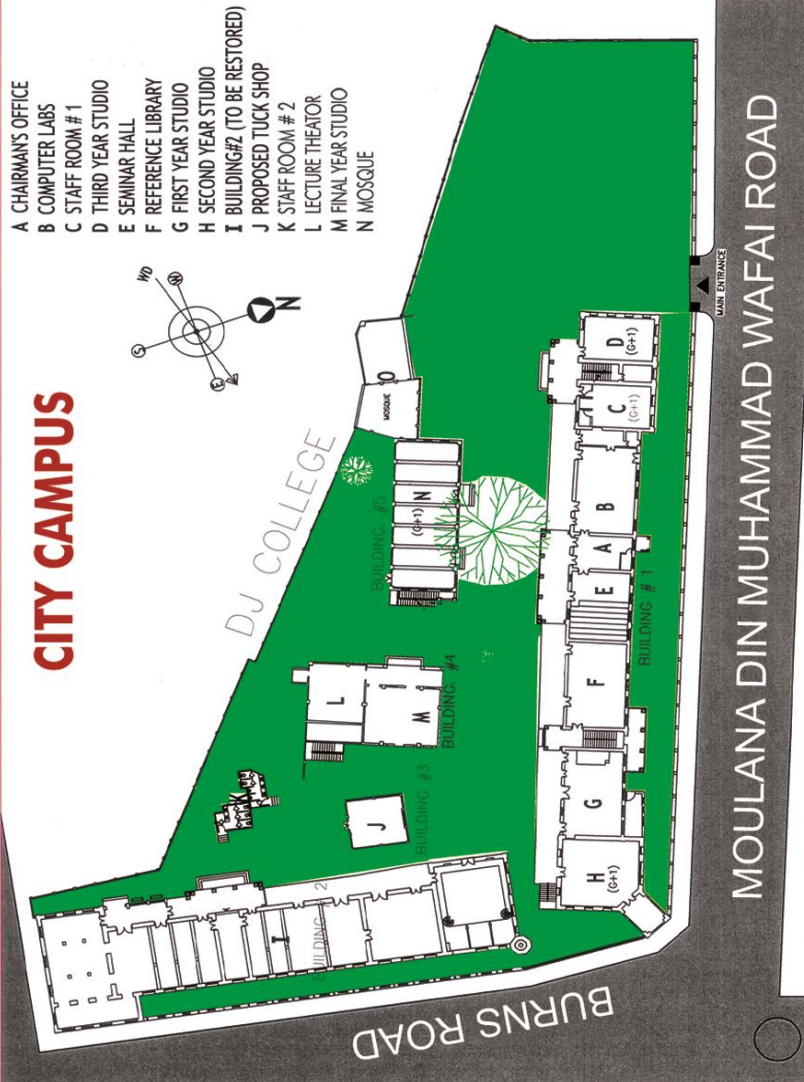
NED UNIVERSITY OF ENGINEERING AND TECHNOLOGY



LEJ CAMPUS



CITY CAMPUS





**The University Authorities
reserve the right to make any
changes in the University
Prospectus without any
prior notice.**

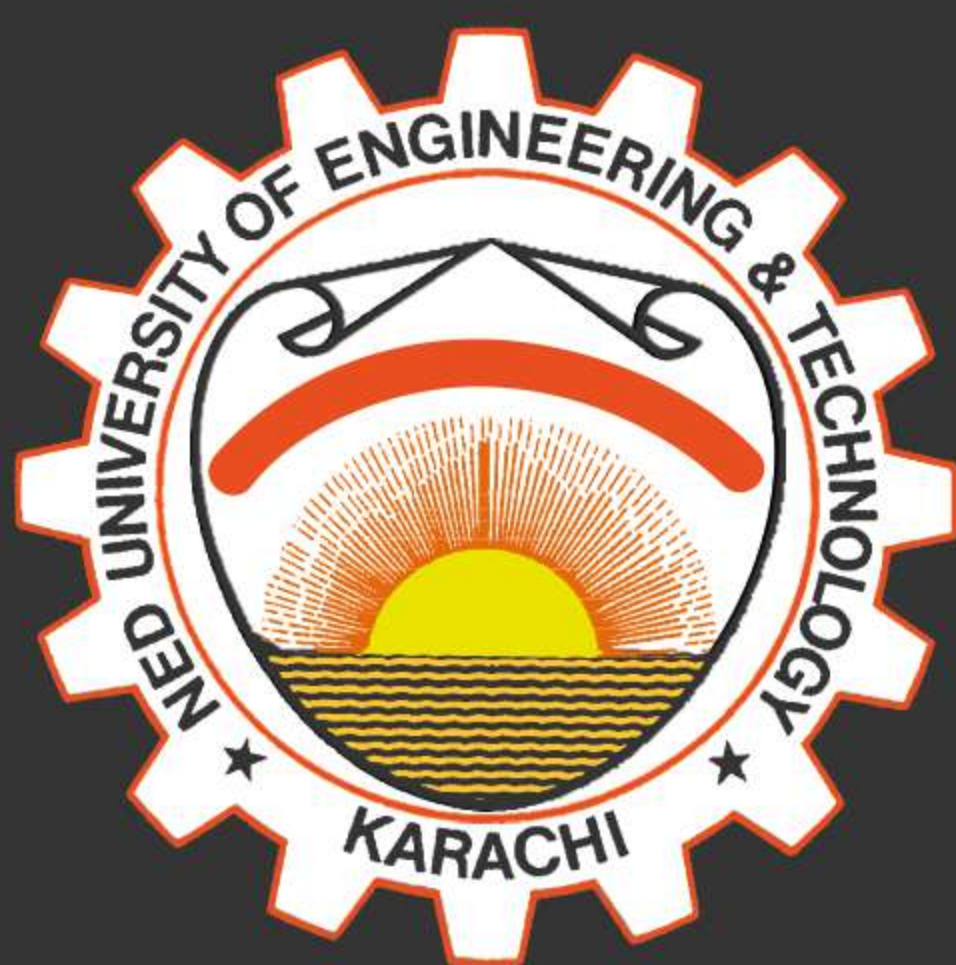
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