

PROSPECTUS

2024-25



Mirpur University of Science and Technology (MUST), Mirpur AJ&K

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
الْحَمْدُ لِلَّهِ الَّذِي
خَلَقَ السَّمَوَاتِ وَالْأَرْضَ
وَالَّذِي يُضَوِّبُ الْمَوْتِ
الَّذِينَ فِيهَا أُولَىٰ
وَالَّذِينَ فِيهَا
أُولَىٰ





MUST VISION & MISSION

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VISION

To be a superior teaching and research institution, having transformative impact on society and act as a knowledge corridor between Azad Jammu & Kashmir, Pakistan, and rest of the World.

MISSION

MUST is committed to all-encompassing growth of its students, besides enabling them to tap the world of knowledge and assume a leadership role in the future through a process of continual innovation in education, research, creativity, technological advancement and entrepreneurship.

MIRPUR UNIVERSITY OF SCIENCE AND TECHNOLOGY(MUST), MIRPUR

CORE VALUES

1

- Academic Excellence and Advancement on Merit;
- Fairness and Equality;

2

- Pluralism and Diversity;
- Outreach and Community-building;

3

- Inclusiveness and Openness;
- Academic Freedom and Freedom of Thought;

4

- Non-Discrimination;
- Ethically Acceptable Standards of Conduct;

5

- Creativity and Innovation;
- Leadership Development;

6

- Environmental Sustainability;
- Learner-centric and Personalized Learning;

7

- Service with Integrity;
- Collegial Environment and Dignity of Labour.



MESSAGE FROM THE CHANCELLOR



Barrister Sultan Mahmood Chaudhry

President of Azad Jammu and Kashmir
Chancellor Mirpur University of Science and Technology, (MUST),
Mirpur AJ&K

I take immense pleasure to write that Mirpur University of Science and Technology (MUST) has made substantial progress since its establishment in 2009. The importance of education cannot be denied, but what puts the difference is the quality of education. In this context, MUST has emerged as one of the premier institutions in the State of

Azad Jammu and Kashmir. Since its inception, MUST has held several events such as seminars, conferences, workshops, and competitions to keep the issue of Illegally Indian Occupied Kashmir alive at the national and international levels, besides educating students and the masses about the historical background. The university has many disciplines of studies from the undergraduate to postgraduate levels like; engineering, natural sciences, technology, health sciences, animal sciences, business studies and social sciences etc. Along with the academic activities, the university also offers a variety of co-curricular activities, which include series of events organised by different societies and clubs, educational tours, inter-university sports etc. I believe that because of quality education imparted in MUST each graduate of MUST shall be able to compete globally.



MESSAGE FROM THE VICE CHANCELLOR



Brig (R) Prof. Dr. Muhammad Younus Javed, SI(M)

Vice Chancellor
Mirpur University of Science and Technology (MUST),
Mirpur AJ&K

It is indeed sheer blessing of Almighty Allah to bestow upon me, the honour of serving as Vice Chancellor of Mirpur University of Science and Technology MUST, Mirpur AJ&K since June 2021. Magnificently culminating another year marked by a steadfast commitment to academic and professional excellence is source of copious gratitude and deep acknowledgment. The resplendent successes are testament to resolute perseverance and resilience exhibited by the administrative hierarchy, esteemed faculty members, Staff and students of Mirpur University. Since the establishment of MUST, Mirpur AJ&K in 2008, University aspires to foster exceptional world-class education and research aiming to nurture, cultivate and promote students' global competence by exploring their concealed potentials, skills and creativity required to contest the challenges of modern times. For last 15 years, MUST has been playing pivotal role in providing the Youth across the State of Azad Jammu & Kashmir and Pakistan with tremendous opportunities to actualize their potential and rise to the apex of the glory as our motive is ever evolving educational, research centered goals and initiatives that collimate with our vision, mission and moral values. It's my pleasure to announce the release of the MUST Annual Report 2022-2023 by Mirpur University of Science and Technology MUST, Mirpur AJ&K, which encompasses the whole gamut of activities. The Edition will be offering a thorough insight into our Academic & Administrative accomplishments, Convocation Ceremony, International Conferences, Faculty Development Workshops & Seminars, Research Initiatives & Publications, Developmental & Research Grants, Health



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& Wellness Campaigns, Quality Assurance, Celebration of National Days, Sports Mega Events & Literary activities, Industrial Collaborations, Memorandums of Understanding, Guest Speakers and overall progress made during the Year. MUST Annual Report 2022-2023 is a reflection of collective efforts put in by all quarters of the Mirpur University as our endeavors would not have been conceivable without devotion, professionalism and tireless efforts of our faculty members, administrative staff and students. In Times Higher Education (THE) and World University Rankings (WUR) 2024, MUST has earned 19th position in whole Pakistan & first in Azad Jammu and Kashmir. To keep flag high, Mirpur University is committed to provide a conducive environment and transformative learning prospects to its students so that they can develop academically, intellectually and socially, as our students are the ambassadors of MUST & their accomplishments in academia, sports, arts and community service mirror the teachings of Mirpur University. In this way with collective efforts, we will continue to propel forward under guidance of our strategic vision and will be leading the way with research & innovation. Entire apparatus of Institution is working round the clock to achieve our primary and foremost mission to

contribute in national development while focusing on the professional growth of students and to equip them with the knowledge, skills & vision required to develop confident leaders, independent thinkers and creative entrepreneurs which will surely expand our reach and impact on the National Level and beyond. Mirpur University actively seeks collaborative ties with industry partners and also with National and International organization to foster the development of both faculty and students. Such initiatives are modernizing the scope of learning. I take immense pride in our collective achievements and MUST aspires to new heights and greater accomplishments in the coming year. Brig (R) Prof. Dr. Muhammad Younus Javed, SI(M) Vice Chancellor Mirpur University of Science and Technology (MUST), Mirpur AJ&K



About The State of Azad Jammu & Kashmir

Azad Jammu and Kashmir is the political entity within the Pakistani-controlled part of the former Princely State of Jammu and Kashmir. It borders Indian-administered Jammu and Kashmir to the east (separated from it by the Line of Control), Khyber Pakhtun khwa province to the west, Gilgit-Baltistan to the north, and the Punjab province to the south. With its capital at Muzaffarabad, Azad Jammu and Kashmir covers an area of 13,297 square kilometers (5134 square miles) and has an estimated population of about four million. Azad Jammu and Kashmir (AJK) is a self-governing state under Pakistani control, but under Pakistan's constitution, the state is not part of Pakistan. Azad Kashmir has its own elected president, prime minister, legislature, high court, and official flag. The state is administratively divided into three divisions which, in turn, are divided into ten districts namely, Mirpur, Kotli, Bhimber, Muzaffarabad, Hattian, Neelum, Poonch, Sudhanutti, Haveli, and Bagh. These ten districts are further subdivided into 29 subdivisions. The people's participation in the political and socio-economic development is ensured through the elected institutions of the Azad Jammu & Kashmir Legislative Assembly comprising 41 directly and 8 indirectly elected members and the Azad Jammu & Kashmir Council with six elected members. Azad Kashmir's financial matters, i.e., budget and tax affairs, are dealt with by the Azad Jammu and Kashmir Council rather than by Pakistan's Central Board of Revenue.

The Azad Jammu and Kashmir Council is a supreme body consisting of 11 members, six from the government of Azad Jammu and Kashmir and five from the government of Pakistan. Its

chairman/chief executive is the president of Pakistan. Other members of the council are the President the Prime minister of Azad Kashmir and a few other AJK ministers.

The literacy rate in Azad Kashmir is more than 64%, which is significantly higher than the national average of Pakistan. At present the gross enrolment rate at the primary level is 95% for boys and 88% for girls (between the ages of 5-9). Urdu is the official language of Azad Jammu and Kashmir. However, due to the area's diverse cultural blend, many languages are spoken by different populations, including Pahari, and Potwari.



The northern part of Azad Jammu and Kashmir encompasses the lower part of the Himalayas, including Hari Parbat Peak in the Neelum Valley is the highest peak in the state. Fertile, green, mountainous valleys are characteristic of Azad Kashmir's geography, making it one of the most beautiful regions on the



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subcontinent. The region receives rainfall in both winter and summer. Muzaffarabad and Patton are among the wettest areas of the state. Throughout most of the region, the average rainfall exceeds 1400 mm, with the highest average rainfall occurring near Muzaffarabad (around 1800 mm). During the summer season, monsoon floods of the Jhelum and Neelum rivers are common, due to high rainfall and melting snow.



Azad Jammu & Kashmir is very rich in natural beauty. Its snow-covered peaks, dense forests, winding rivers, turbulent foaming streams, wheat-scented valleys, velvet green plateaus, and climate varying from arctic to tropical, all join together to make it an excellent tourist attraction. Splendid valleys of Neelum, Jhelum, Leepa, Sudhan Gali, Banjosa, Rawalakot, Paniola, Datot, Tolipir, and many more have magical attractions for visitors. Azad Jammu &

Kashmir is a fascinating land of diverse people, languages & cultures.

Agriculture is a major part of Azad Kashmir's economy. Low-lying areas that have high populations grow crops like barley, mangoes, millet, corn (maize), and wheat, and also raise cattle. In the elevated areas that are less populated and more widespread, forestry, corn, and livestock are the main sources of income.

There are mineral and marble resources in Azad Kashmir close to Mirpur and Muzaffarabad. There are also graphite deposits at Mohriwali. There are also reservoirs of low-grade coal, chalk, bauxite, and zircon. Commensurate with its natural beauty, Kashmir is famous for its rich and varied cultural heritage. Handicrafts are famous all over the world.

In addition to agriculture, textiles, arts and crafts, remittances by British Pakistanis have played a major role in the economy of Azad Kashmir.



About the University

Established in 2008, Mirpur University of Science and Technology MUST, Mirpur AJ&K evolved from the University College of Engineering and Technology (UCET), Mirpur AJ&K which was formerly component of University of Azad Jammu and Kashmir. As a state-run public sector institution, the university's Chancellor is the President of Azad Jammu and Kashmir, while the Vice Chancellor serves as the executive head responsible for overseeing its operations.

MUST is located in the culturally vibrant city of Mirpur, which also serves as the Divisional Headquarters and is a major economic hub in Azad Jammu and Kashmir. The university plays a pivotal role in delivering quality education across the region. MUST currently operates from three campuses, with the main campus situated on Allama Iqbal Road, directly across from the District Courts.

Departments at City Campus : The City Campus houses four departments within the Faculty of Engineering and Technology, including Electrical Engineering, Computer Systems Engineering, Software Engineering and Mechanical Engineering. Additionally, the Faculty of Natural and Applied Sciences offers programs in Biotechnology, Computer Science and Information Technology, and Physics. The Faculty of Social Sciences and Humanities is home to five departments: Education, International Relations, Islamic Studies, Media and Mass Communication, and Sociology. Moreover, the Faculty of MUST Business School (FMBS) comprises three departments: the Department of Business Administration, the Department of Banking and Finance, and the Department of Commerce. Key administrative offices such as the Directorate of

Student Affairs, the Board of Advanced Studies and Research, the Office of Research, Innovation, and Commercialization (ORIC), and Sports and National Testing Center (NTC) offices are also located at this campus.

Designed as the hub of academic activities, the City Campus is having a range of facilities including a Central Library, an auditorium, student hostels, a mosque, student cafeterias, outdoor sports amenities, large lecture and conference halls, state-of-the-art laboratories, and ample parking space.

Second Campus Situated on Allama Iqbal Road, adjacent to the Girls Degree College, the second campus houses the Faculty of Health Sciences, which comprises five departments: Doctor of Pharmacy (Pharm-D), Doctor of Physical Therapy (DPT), Human Nutrition and Dietetics (HND), Allied Health Sciences (AHS), and Microbiology. Additionally, the Department of Home Economics, the Department of Zoology, and Maryum Girls' Hostel are located on this campus.

Third Campus: The third campus, located on Jarikas Bhimber Road, houses the administrative block and several academic departments, including Civil Engineering, Chemistry, Mathematics, Statistics and Mirpur Institute of Technology (MIT). The Department of Law is also based here. Additionally, MUST Pallandri offers degree programs in Education, Forestry, Hotel Management and Tourism, International Relations and Physics.



Organizational Setup

• Chancellor	Barrister Sultan Mahmood Chaudhry
• Vice Chancellor	Engr. Brig. (R) Prof. Dr. Muhammad Younus Javed, SI (M)
• Dean Faculty of Engineering & Technology	Prof. Dr. Muhammad Sajid
• Dean Faculty of Health & Medical Sciences	Prof. Dr. Anwar Khitab
• Dean Faculty of Natural & Applied Sciences	Prof. Dr. Rashida Hussain
• Dean Faculty of Social Sciences & Humanities	Prof. Dr. Tahseen Ghous
• Dean Faculty of Veterinary and Animal Sciences	Veterinary Faculty is merged with University of Bhimber.
• MUST Business School	Prof. Dr. Zafar Iqbal
• Registrar	Prof. Dr. Khizar-ul-Haq
• Controller of Examinations	Kamran Hameed
• Treasurer	Prof. Dr. Muhammad Khalique
• Director of AS & RB	Dr. Anzar Mahmood
• Director QEC	Dr. Khuram Pervez Amber
• Director ORIC	Prof. Dr. Faisal Riaz
• Director SAC	Dr. Mohsin Zafar

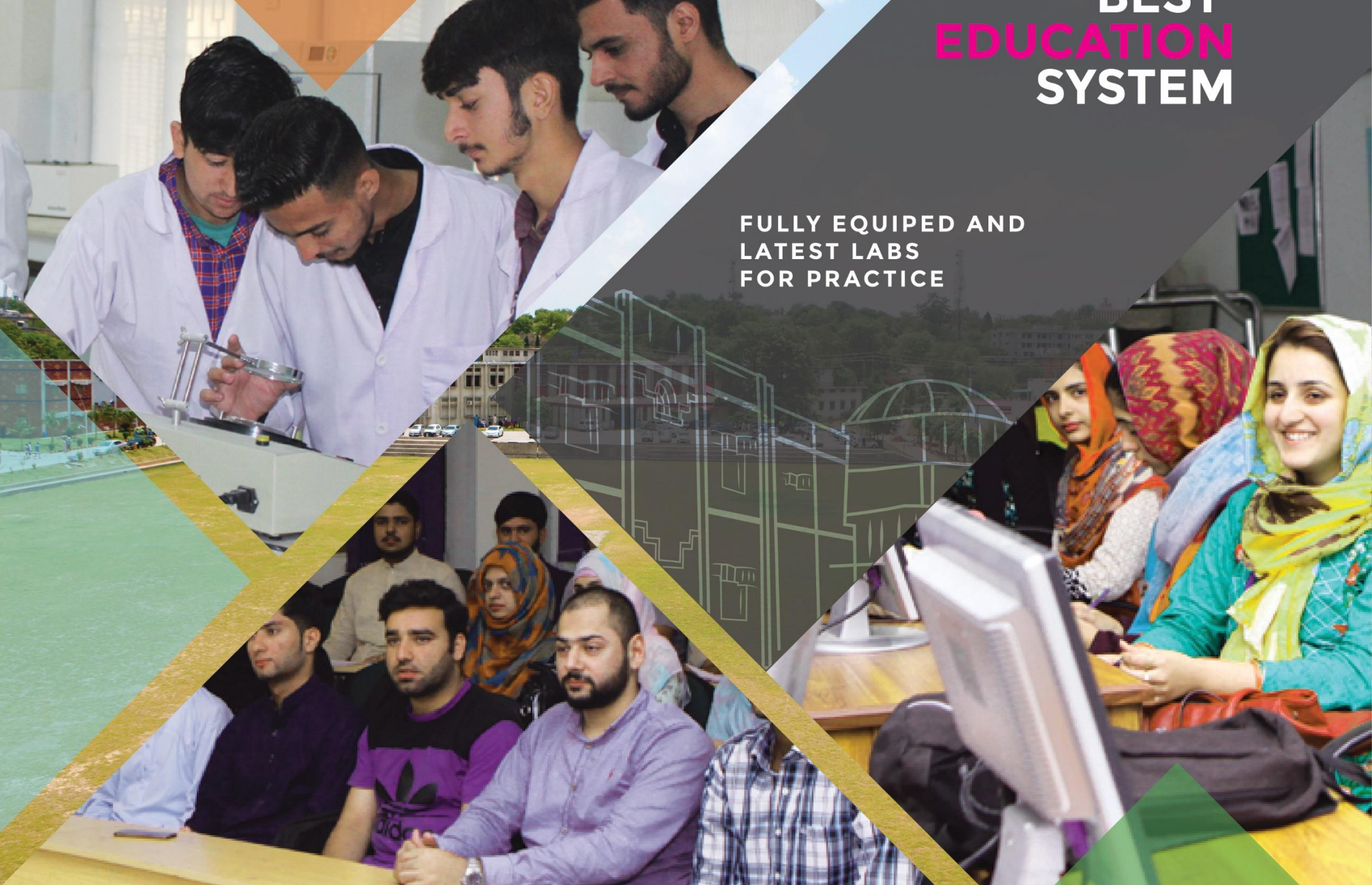
• Director Planning & Development	Syed Zishan Ashiq
• Director NTC	Imtiaz Ahmed Bhat
• Director Student's Affairs	Dr. Muhammad Altaf Hussain
• Director Sports	Abid Hussain
• Provost Hostels	Dr. Kalim-ul-Haq Tariq






BEST EDUCATION SYSTEM

FULLY EQUIPED AND
LATEST LABS
FOR PRACTICE





FACULTY OF
ENGINEERING AND
TECHNOLOGY



Dean Faculty of Engineering & Technology

Engr. Prof. Dr. Muhammad Sajid

Tel: +92-5827-961008

Message from Dean:

I would be pleased to welcome you by taking the challenge of becoming an aspiring student of the Faculty of Engineering and Technology (FE&T). The faculty of engineering and technology was established in 1980 and laid the foundation of MUST in 2009. The FE&T presents the colors of dynamic people with leading-edge ideas who are ready to work in highly practical, rigorous, and challenging environments. There are 50+ advanced and world-class laboratories for engineering education along with modern classrooms. We are blessed with highly qualified PhD faculty members from technologically advanced countries like the USA, European Union, South Korea, Japan, Australia, UK, and many more. Being Muslims, we take pride and reflect the real essence in the syllabi of different degree programs. The international image of our program is reflected through its amalgam of the best professional approach, CVs of highly qualified faculty and lab engineers, communication skills, ethical values, moral and social training, and industrial linkages to academia. Our Alumni are the clear evidence of the international image of FE&T at MUST.

The curricula in different programs of engineering at FE&T involve creative learning, hands-on implementation in labs and combination of research. Alongside the theme of theory and practice, there is an inspiration for research-led teaching. All the programs of FE&T are based on industrial projects and original ideas. The faculty is young and energetic with five departments and is envisaged to grow as a major modern center of excellence for engineering education and research. We have already been placed among the most dynamic, fastest-growing, and excelled faculties in engineering sciences in the country and our programs are accredited at Level II (OBE) by the Pakistan Engineering Council.

The faculty endeavors to grow into new programs like Biomedical Engineering Technology, Energy Engineering, Information Engineering Technology, the Cyber Security Engineering in the near future. Over the course of the next few years, we are hoping to continue the process of self-evaluation, renewal, and growth of our academic programs, staff, and infrastructure. I hope between our students we may have someone like Mark Zuckerberg of Facebook, Jeff Bezos of Amazon, Elon Musk of Telsa, or Nobel prize winners like Adre Geim Electronic Engineer Koichi Tanaka, Electrical



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Engineer Sir Charles Kuen Kao, Civil Engineer Paul Jozef Crutzen, Mechanical Engineer Dan Shechtman. We highlight the knowledge curve through “Learn by Doing It.”



Introduction to Outcome-Based Education (OBE) System :

Advancing the conventional teacher-centered education system, Outcome Based Education (OBE) is a student-centered assessment approach evaluating students' learning during the course of four years. The learning capabilities are assessed based on the twelve graduate attributes, also known as the Program Learning Outcomes (PLOs)**, in line with the Program Educational Objectives (PEOs)*. OBE approach evaluates individual student learning at the course level based on Course Learning Outcomes (CLOs)*** leading to inculcate the basic to advance engineering skills to ensure that the graduate is fully equipped with all necessary engineering, communication, and management tools to serve the industry and society efficiently working individually and or in a team. Through the OBE System, Cognitive, Psychomotor, and Affective domains are strengthened among the students from basic knowledge to creativity/synthesis level.

Notably, the OBE approach registers students with Washington Accord. Established in 1989, US-based The Washington Accord is an international accreditation agreement signed among member countries recognizing graduates of the signatories as The Engineers at international level without appearing in the Degree-Recognizing Foundation Exam. Simply, no registration with The Washington Accord, and no international recognition as an engineer. Pakistan Engineering Council (PEC) is a full signatory of The Washington Accord since June 21, 2017. And BSc. The Electrical Engineering Program in MUST is accredited with PEC at Level II (OBE System).

***Program Educational Outcomes (PEOs):** The general statements that describe the expected achievements of graduates in their career, and also in particular, what the graduates are expected to perform and achieve during the first few years after graduation.

****Program Learning Outcomes (PLOs):** The narrower statements that describe what students are expected to know (graduate attributes (GA)) and be able to do by the time of graduation.

*****Course Learning Outcomes (CLOs):** Course Learning Outcomes describe the complex performances a student should be capable of as a result of learning experiences within a course.

Benefits of OBE System for Students

Transparency

- Students have better idea to understand what is to be learnt? What skills they are required to be developed by the end of degree.

Personal Grooming

- Apart from being good engineers, the students are prepared to become good humans with awareness about their responsibility towards society.

Analysis

- Students are assessed at individual level and corrective measures are taken for any short coming of each individual.

Employment

- Under the umbrella of Washington Accord, the students get equivalence of accredited professional degrees offered by the signatory countries. Thus, accredited engineering graduates through this accord will have the freedom to work in any signatory countries (e.g. USA, UK, New Zealand etc.) without any equivalence examination.

Team Building

- OBE helps polish the communication skills of students and helps inculcate the importance of collaboration and team work, especially in a multi-cultural environment.



Program Learning Outcomes

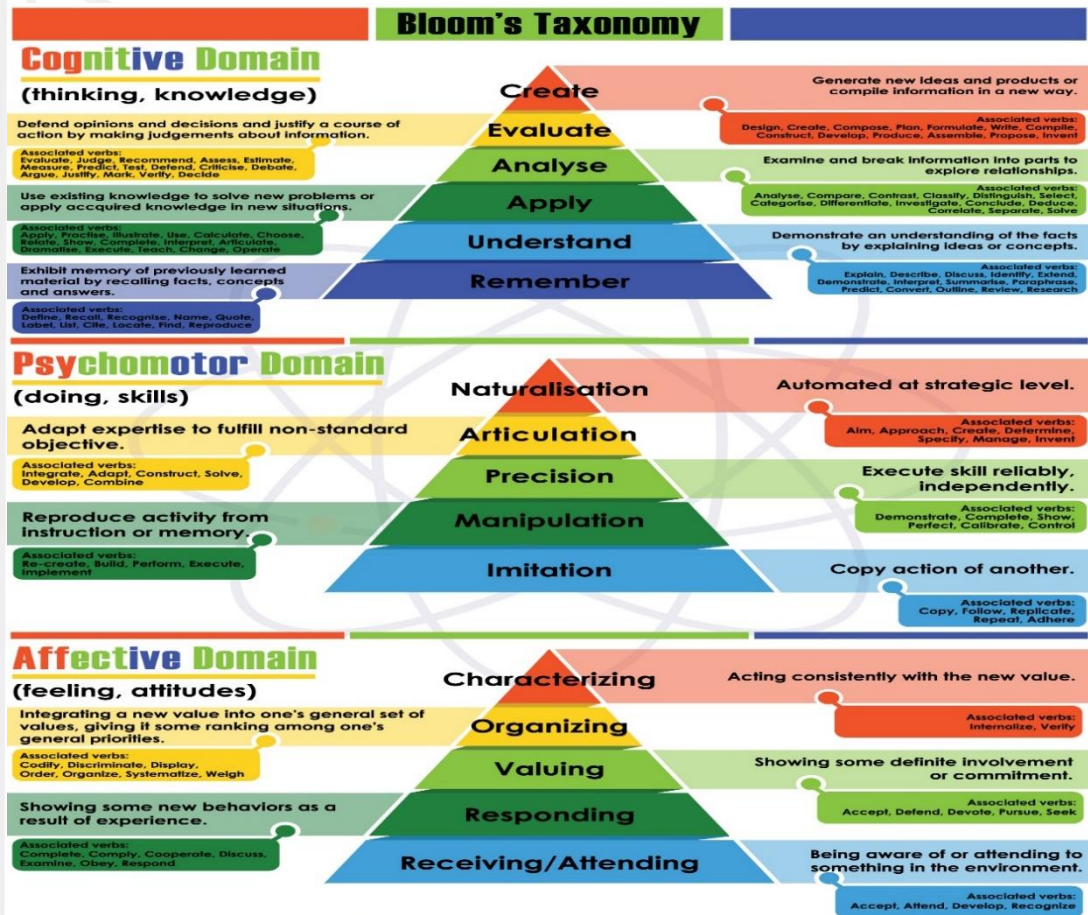
PLO-1	Engineering Knowledge	Apply knowledge of mathematics, natural science, engineering fundamentals and engineering specialization to the solution of complex engineering problems (WK1-WK4)
PLO-2	Problem Analysis	Identify, formulate, conduct research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences (WK1-WK4)
PLO-3	Design/ Development of Solutions	An ability to design solutions for complex engineering problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations (WK5)
PLO-4	Investigation	Conduct investigation of complex engineering problems using research-based knowledge and research methods, including design experiments, analysis and interpretation of experimental data, and synthesis of information to provide valid conclusions (WK8)
PLO-5	Modern Tool Usage	Create, select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to complex engineering problems, with an understanding of the limitations (WK2 and WK6)
PLO-6	The Engineer and the World	Analyze and evaluate sustainable development impacts to society, the economy, sustainability, health and safety, legal frameworks, and the environment while solving complex engineering problems (WK1, WK5 and WK7)
PLO-7	Ethics	Apply ethical principles and commit to professional ethics and norms of engineering practice. And adhere to relevant national and international laws. Demonstrate an understanding of the need for diversity and inclusion (WK9)
PLO-8	Individual and Collaborative Teamwork	Function effectively as an individual and as a member or leader in diverse and inclusive teams and in multi-disciplinary, face-to-face, remote and distributed settings (WK9)
PLO-9	Communication	Communicate effectively and inclusively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design



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		documentation, make effective presentations, taking into account cultural, language and learning differences (WK1 and WK9)
PLO-10	Project Management and Finance	Demonstrate knowledge and understanding of engineering management principles and economic decision making and apply these to one's own work, as a member and leader in a team, to manage projects in multidisciplinary environments (WK2 and WK5)
PLO-11	Lifelong Learning	Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in broadest context of technological change (WK8 and WK9)

Revised Blooms Taxonomy with Relevant Action Verbs





DEPARTMENT OF Civil Engineering

Vision

Endeavour to provide quality education in the field of Civil Engineering for the development of the human resource with professional ethics that would contribute towards a better civilized world.

Degree Programs Offered

B.Sc. Civil Engineering

M.Sc. Structural Engineering





Chairperson:
Engr. Dr. Muhammad Tausif Arshad

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E-mail: chairman.ce@must.edu.pk

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Message from Chairperson:

Greetings!

Greetings! Civil engineering stands at the forefront of shaping the modern world, playing a crucial role in creating the infrastructure and systems that define our daily lives. In our department, we are not teaching about constructing buildings and bridges; we are crafting a future where innovation, sustainability, and excellence come together seamlessly. As the Chairman, I am honored to lead a team of passionate faculty, innovative researchers, and ambitious students, all dedicated to pushing the boundaries of what's possible in this ever-evolving field.

Our curriculum is designed around a robust outcome-based framework that does more than impart technical knowledge—it empowers our students to convert that knowledge into practical, impactful solutions. We place a strong emphasis on equipping our graduates with industry-aligned skills and a profound understanding of the global challenges they will face. This approach ensures that they are not just prepared to enter the workforce

As you delve into this prospectus, I invite you to envision the countless opportunities a civil engineering education can unlock. Whether your passion lies in structural design, environmental engineering, transportation systems, geotechnics, project management, or any other specialty within the field, our department offers the guidance, cutting-edge resources, and diverse opportunities needed to turn your aspirations into reality. Our mission is clear: to build a world that is safer, more sustainable, and increasingly interconnected. We are committed to nurturing the next generation of civil engineers who will take on the grand challenges of our time and propel society toward a brighter, more resilient future. I encourage you to join us on this exciting journey, where together, we will transcend boundaries and explore new horizons in the field of civil engineering.

Let's shape a better tomorrow, one innovative solution at a time. With ambition and purpose,

Engr. Dr. Muhammad Tausif A



Faculty members of Civil Engineering



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Introduction:

Civil Engineering is a professional engineering discipline that deals with the planning, design, construction operation, and maintenance of the physical and naturally built environment, including works such as bridges, roads, canals, dams, and buildings. Civil Engineering is the oldest engineering discipline after military engineering. It is traditionally broken into several sub-disciplines including Environmental Engineering, Geotechnical Engineering, Structural Engineering, Transportation Engineering, Municipal or Urban Engineering, Water Resources Engineering, Materials Engineering, Coastal Engineering, Surveying, Irrigation Engineering, Hydraulics Engineering, and Construction Engineering. Civil Engineering takes place on all levels: in the public sector from municipal to federal levels, and in the private sector from individual homeowners to international companies.

B.Sc. Civil engineering

Civil Engineering (CE) is an evergreen discipline, and its demand exists throughout the world. Civil engineers cater to the national needs for buildings, highways, dams, bridges, irrigation networks, and water supply systems, and are the world's largest users of building materials. The Department of Civil Engineering has been actively engaged in disseminating civil engineering education for the last eleven years. The Department offers a full-time course of four years duration leading to a bachelor's degree in civil engineering. The department also offers graduate courses of study leading to M.Sc. Structural Engineering.

The Civil Engineering Department offers a bachelor's degree program that develops the necessary skills and competencies required to design and implement in the construction industry. In the bachelor's course, emphasis is laid on the fundamental concepts and principles, which inbuilt the basis of civil engineering practices. The department serves the community by producing quality Civil Engineers capable of addressing solutions to the challenging problems being faced at the National/International level. These engineers also play a pivotal role in the research sector of the country owing to its multidisciplinary nature and wide scope. Therefore, the department aims to produce qualified graduates, competitively to serve as a technically qualified workforce to the industry and academia, the corporate sector, and government organizations, globally.

Program Vision

Endeavor to provide quality education in the field of Civil Engineering for the development of the human resource with professional ethics that would contribute towards a better civilized world.

Program Mission

Civil Engineering Department is committed to impart contemporary Civil Engineering education for socioeconomic development of the region through quality graduates capable of playing leadership role through the process of continual innovation, research, creativity and entrepreneurship



Program Educational Objectives

- PEO-1:** Graduates will integrate sustainability, persistence, safety, and professional ethics in Civil Engineering projects.
- PEO-2:** Graduates will solve complicated challenges and furnish new ideas and inventions that will help in the advancement of their profession and society.
- PEO-3:** Graduates will contribute to the economic development of the state of Azad Kashmir, Pakistan, and the rest of the world.
- PEO-4:** Graduates will be able to work in multi-disciplinary teams with other professions to properly grasp stakeholder demands.

Scheme of Studies

SEMESTER 1			
CODE	COURSE TITLE	LEC. CH	KNOWLEDGE AREA
CIV-1101	Civil Engineering Materials	2	Foundation
CIV-1101L	Civil Engineering Materials Lab	1	Foundation
CIV-1102	Engineering Drawing	1	Foundation
CIV-1102L	Engineering Drawing Lab	2	Foundation
HSC-1103	Functional English	2	Humanities
NSC-1104	Applied Calculus/Math-I	3	Natural Science
CIV-1105L	Computer Fundamentals Lab	1	Computing

CIV-1106	Basic Electromechanical Engineering	2	IDEE
CIV-1106L	Basic Electromechanical Engineering Lab	1	IDEE
Total Theory CH		10	
Total Lab CH		5	
Grand Total CH		15	
SEMESTER 2			
CIV-1201	Engineering Geology	2	Natural Science
CIV-1202	Engineering Survey	2	Foundation
CIV-1202L	Engineering Survey Lab	1	Foundation
CIV-1203	Properties of Concrete	1	Foundation
CIV-1203L	Properties of Concrete Lab	1	Foundation
CIV-1204	Engineering Mechanics	3	Natural Science
CIV-1204L	Engineering Mechanics Lab	1	Natural Science
HSC-1205	Pakistan and Kashmir Studies	2	Humanities
HSC-1206	Arabic	1	Humanities
NSC-1207	Applied Differential Equations/Math-II	3	Natural Science
Total Theory CH		14	
Total Lab CH		3	
Grand Total CH		17	
SEMESTER 3			
HSC-2301	Islamic Studies	2	Humanities
CIV-2302	Advanced Engineering Surveying	2	Breadth



CIV-2302L	Advanced Engineering Surveying Lab	1	Breadth
CIV-2303	Strength of Materials-I	2	Foundation
CIV-2303L	Strength of Materials-I Lab	1	Foundation
NSC-2304	Numerical Analysis/Math-III	3	Natural Science
CIV-2305	Civil Engineering Drawing and Graphics	1	Computing
CIV-2305L	Civil Engineering Drawing and Graphics Lab	2	Computing
CIV-2306	Computer Programming	1	Computing
CIV-2306L	Computer Programming Lab	1	Computing
CIV-2307	Geoinformatics	1	Natural Science
CIV-2307L	Geoinformatics Lab	1	Natural Science
Total Theory CH		12	
Total Lab CH		6	
Grand Total CH		18	
SEMESTER 4			
CIV-2401	Quantity Survey and Cost Estimation	2	Computing
CIV-2401L	Quantity Survey and Cost Estimation Lab	1	Computing
NSC-2402	Probability & Statistics/Math-IV	3	Natural Science
CIV-2403	Soil Mechanics-I	3	Foundation
CIV-2403L	Soil Mechanics-I Lab	1	Foundation
CIV-2404	Fluid Mechanics	3	Foundation

CIV-2404L	Fluid Mechanics Lab	1	Foundation
CIV-2405	Theory of Structures-I	3	Foundation
Total Theory CH		14	
Total Lab CH		3	
Grand Total CH		17	
SEMESTER 5			
CIV-3501	Construction Engineering	3	Management Science
CIV-3501L	Construction Engineering Lab	1	Management Science
CIV-3502	Hydrology and Water Resources Management	2	Foundation
CIV-3502L	Hydrology and Water Resources Management Lab	1	Foundation
CIV-3503	Strength of Materials-II	3	Depth
CIV-3503L	Strength of Materials-II Lab	1	Depth
CIV-3504	Advanced Fluid Mechanics	2	Breadth
CIV-3504L	Advanced Fluid Mechanics Lab	1	Breadth
CIV-3505	Theory of Structures-II	3	Breadth
Total Theory CH		13	
Total Lab CH		4	
Grand Total CH		17	
SEMESTER 6			
CIV-3601	Transportation Engineering-I	3	Breadth



CIV-3602	Environmental Engineering-I	2	Breadth
CIV-3602L	Environmental Engineering-I Lab	1	Breadth
CIV-3603	Hydraulics Engineering	2	Breadth
CIV-3603L	Hydraulics Engineering Lab	1	Breadth
CIV-3604	Reinforced Concrete Design-I	3	Breadth
CIV-3605	Architectural & Town Planning	2	IDEA
CIV-3606	Steel Structures	3	Depth
Total Theory CH		15	
Total Lab CH		2	
Grand Total CH		17	
SEMESTER 7			
CIV-4701	Transportation Engineering-II	3	Depth
CIV-4701L	Transportation Engineering-II Lab	1	Depth
CIV-4702	Environmental Engineering-II	2	Depth
CIV-4703	Soil-Mechanics-II	2	Depth
CIV-4703L	Soil-Mechanics-II Lab	1	Depth
CIV-4704	Reinforced Concrete Design-II	2	Depth
CIV-4704L	Reinforced Concrete Design-II Lab	1	Depth

HSC-4705	Entrepreneurship	3	Management Science
CIV-4706	Civil Engineering Project-I	3	
Total Theory CH		12	
Total Lab CH		6	
Grand Total CH		18	
SEMESTER 8			
CIV-4801	Irrigation Engineering	2	Depth
CIV-4801L	Irrigation Engineering Lab	1	Depth
CIV-4802	Foundation Engineering	2	Depth
CIV-4803	Disaster Management	2	Management Science
CIV-4804	Engineering Economics	2	Management Science
CIV-4805	Structural & Earthquake Engineering	3	Depth
CIV-4806	Civil Engineering Project-II	3	
HSC-4807	Business Communication	2	Humanities
Total Theory CH		13	
Total Lab CH		4	
Grand Total CH		17	

Laboratories:

The Department of Civil Engineering is continuously enhancing its laboratory facilities to meet undergraduate program requirements as per the Pakistan Engineering Council's guidelines. The details of laboratory equipment are as follows:



Concrete/Materials Laboratory

The primary purpose of the Concrete/Materials Laboratory is to conduct both BSc and MSc-level research work to develop better, more durable, cost-effective, and sustainable concrete infrastructures by investigating and characterizing concrete component materials including cement, aggregate, supplementary, and alternative cementitious materials, and admixtures. The lab has recently been improved in terms of size and apparatus. The laboratory collaborates with academia, other government agencies, and industry, leveraging expertise in conducting research to address issues of national and international significance. Currently, there is about 30 equipment ranging from Impact value apparatus to the Ball milling machine & UTM.

Highway and Transportation Engineering Laboratory

The Highway & Transportation Engineering Laboratory is equipped with all necessary equipment required at BSc level including the conduction of intensive research work thus successfully covering the development of psychomotor and affective skills. The equipment is also sufficient to carry out moderate-level commercial testing, thus this laboratory has been serving the industry for a number of years. Furthermore, the lab has recently been improved in terms of the area, equipment as well as safety measures. Procedures to check the basic properties of bitumen including Flash and Fire point and Penetration Grade have been changed from manual to automatic system owing to the availability of new import automatic apparatus. In addition to it, machines for

Marshall Mix Design and California Bearing Ratio have also been upgraded to the latest models; purchased in 2021.

Hydraulics Engineering Laboratory

The Hydraulics Engineering Laboratory is well equipped with the engineering apparatus, which is essential to perform experiments related to the BSc subjects e.g. Hydraulics Engineering, in order to develop psychomotor, cognitive, and affective skills. The lab has been significantly updated in terms of its size and is fully functional with all the safety measures and precautions. The presence of advanced apparatus e.g. open channel flume, pipe friction apparatus, etc. in the laboratory, not only makes students visualize the water surface profiles but also enables them to calculate various hydraulics parameters.

Engineering Surveying Lab

The objective of the surveying laboratory is to make students familiar with and competent enough to draw maps in suitable scale by using different surveying instruments like total station, theodolite, auto level, global positioning system (GPS), electromagnetic distance measurement (EDM), plane table, compass, etc. Students learn to survey from conventional as well as contemporary methods and technology. The lab is equipped with around 12 equipment and students can easily develop excellent psychomotor, affective as well as cognitive skills based on their usage.



Geotechnical Engineering Laboratory

Geotechnical Laboratory provides basic as well as advanced knowledge about different parameters related to the soil. The laboratory houses the soil classification testing apparatus, proctor compaction equipment, permeability (constant and falling head), one-dimensional consolidation, unconfined compression test, direct shear, and triaxial shear testing machines. All consolidation and shear testing systems are networked with a computer for automated load control and data acquisition. In addition to this standard equipment, we have dynamic triaxial/resilient modulus, CBR, and other specialized testing systems with electronic and computer support for students' use in this laboratory. Students develop different solutions to soil problems under the supervision of a teacher and by following proper safety measures. Lastly, the lab has a good reputation in terms of commercial testing all over the state.

Computer-Aided Design Laboratory

The laboratory is equipped with 22 fast computer systems and necessary Civil Engineering software is installed in them, so that Computer Fundamentals understanding, Building Construction Drawing, and Programming can easily be carried out. In the next year, another lab with 40 workstations will be completed.

Environmental Engineering Laboratory

The department has a dedicated Environmental Engineering lab for the performance of BSc as well as commercial testing level tests/practical's. Some of the equipment available in the lab is a Spectro-Direct photometer, portable multi-direct photometer for field testing, pH meter, turbidity meter, and E coli analyzer. Furthermore, BOD and COD can also be measured efficiently. Almost every year, a sufficient number

of final year students, use this lab for the completion of their projects which in turn results in a good societal contribution; as lack of clean drinking water is one of the major issues currently being faced by residents of AJK and Pakistan.

Engineering Mechanics Laboratory

This laboratory has been recently developed. Some major equipment in the lab is Hook's law, reactions of simply supported beams, the centroid of regular and irregular shapes, basic roof truss, etc.

This laboratory fulfils the basic need of B.Sc. Civil Engineering Students

MS STRUCTURAL ENGINEERING

The department started a program of M.Sc. Structural Engineering in Fall 2016. This degree emphasizes on the practical application of knowledge one step ahead of the bachelor's program. The successful MS graduates may develop their careers in Research and Development, Industry, Academia, and Consultancy Organizations both nationally and internationally. There are currently 6 PhD faculty members who are running this program; total seats are 15 and their attainment is approximately 100%.

Admission Criterion:

- BSc Civil Engineering with at least 1st division or CGPA of 2.5/4.0 with no 3rd division in academic record.
- Registered with PEC
- GAT General qualifying score
- Entry test conducted by the university

Duration:

The normal duration of M.Sc. Structural Engineering is two years (four semesters) with a maximum duration of up to four years (eight semesters).



MSc STRUCTURAL ENGINEERING			
SCHEME OF STUDIES			
Course Code & Title		Credit Hrs	Pre-req.
		Week	
		Compulsory Courses	
CE-101	Computer Methods in Structural Engineering	3	-
STR-201	Advanced Structural Analysis	3	-
STR-203	Properties of Structural Materials	3	-
STR-209	Structural Dynamics and Earthquake Engineering	3	-
STR-212	Repair, maintenance, strengthening and retrofitting of structures	3	-
CE-102	Research Thesis	6	-
ELECTIVE COURSES			
STR-202	Seismic Design of Structures	3	-
STR-204	Bridge Engineering	3	-
STR-205	Advanced Design of Structures	3	-
STR-206	Finite Element Methods	3	-
STR-207	Advanced Strength of Materials	3	-
STR-208	Advanced Steel Structures	3	-

STR-210	Advanced Reinforced Concrete	3	-
STR-211	Pre-Stressed Concrete	3	-
WRI-302	Hydraulic Structures	3	-
GTF-402	Dam Engineering	3	-
GTF-403	Foundation Engineering	3	-
TRP-501	Pavement Analysis and Design	3	-
TRP-505	Railway Engineering	3	-
TRP-506	Advanced Traffic Engineering and Management	3	-
CEM-703	Construction Projects Scheduling and Control	3	-
CEM-704	Safety Management in Construction	3	-
CE-121	Nanotechnology in Engineering	3	-
CE-122	Research Methodology and Statistical Analysis	3	-

Scheme of Studies Semester wise

Semester I

Course Code	Type	Subject	Cr.Hrs
Subject I	Compulsory	Offered from the compulsory courses list	3
Subject II	Compulsory	Offered from compulsory courses list	3
Subject III	Elective	Offered from elective courses list	3

Semester II



Subject IV	Compulsory	Offered from compulsory courses list	3
Subject V	Compulsory	Offered from compulsory courses list	3
Subject VI	Elective	Offered from elective courses list	3
Semester III			
CIV-7000	Compulsory	Offered from compulsory courses list	3
CIV-7998	Elective	Offered from elective courses list	3
CE-102	Compulsory	Research Thesis	6
Semester IV-VIII			
CE-102	Compulsory	Research Thesis	6

Ph.D. Civil ENGINEERING				
Scheme Of Studies				
Course Code	Title	Category	Cr. Hrs.	Pre-req.
PCIV-7001	Research Methodology and Ethics	Compulsory	3	–
PCIV-7101	Numerical Modeling of Porous Media	GeoTech	3	–
PCIV-7102	Soil Dynamics	GeoTech	3	–

PCIV-7103	Advanced Rock Mechanics	GeoTech	3	–
PCIV-7104	Underground Excavation and Tunneling	GeoTech	3	–
PCIV-7105	Geotechnical Earthquake Engineering	GeoTech	3	–
PCIV-7106	Unsaturated Soil Mechanics	GeoTech	3	–
PCIV-7107	Ground Improvement and Geosynthetics	GeoTech	3	–
PCIV-7108	Earthquake Seismology & Hazard	GeoTech	3	–
PCIV-7109	Dam Engineering	GeoTech	3	–
PCIV-7201	Advanced Reinforced Concrete Mechanics	Structure	3	–
PCIV-7202	Structural Health Monitoring	Structure	3	–
PCIV-7203	Earthquake-resistant Design of Buildings	Structure	3	–
PCIV-7204	Innovative Cementitious Materials	Structure	3	–
PCIV-7205	Finite Element Method	Structure	3	–
PCIV-7206	Pre-Stressed Concrete	Structure	3	–
PCIV-7207	High Rise Structures	Structure	3	–



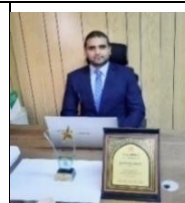
PCIV-7208	Extreme Loadings of Structures	Structure	3	-
PCIV-7209	Structural Dynamics and Modeling	Structure	3	-
PCIV-7210	Structural Reliability	Structure	3	-
PCIV-7211	Bridge Engineering	Structure	3	-
PCIV-7301	GIS for Water Resources	Hydraulics	3	-
PCIV-7302	Advanced Environmental Impact Assessment	Hydraulics	3	-
PCIV-7303	Integrated Water Resources Management	Hydraulics	3	-
PCIV-7304	Disaster Prevention Hydraulics	Hydraulics	3	-
PCIV-7305	Hydraulic Structure Design	Hydraulics	3	-
PCIV-7306	River Engineering	Hydraulics	3	-
PCIV-7307	Sediment Dynamics	Hydraulics	3	-
PCIV-7308	Statistical Hydrology	Hydraulics	3	-
PCIV-8401	Construction and Safety Management	Construction Engineering	3	-
PCIV-8402	Sustainability in Construction Projects	Construction Engineering	3	-
PCIV-8403	Advanced Construction Management	Construction Engineering	3	-

PCIV-8404	Construction Contracts for Civil Engineers	Construction Engineering	3	-
PCIV-8405	Construction Project Planning and Control	Construction Engineering	3	-



Alumni Comments

My name is Engr. Wajid Hussain Shah, and I am truly honored to represent MUST as an alumnus of the Civil Engineering Department. Currently, I am working as Technical Director of Civil Engineering in Saudi Arabia, where I have spent the last five years contributing to major projects like NEOM. Prior to this, I served for seven years as Assistant Director/SDO at C&W in AJK, Pakistan. I owe my success to the dedicated teachers at MUST, who tirelessly worked to not only ensure we became accredited engineers but also shaped us into professional engineers by enhancing our technical skills alongside theoretical knowledge. To the new students aspiring to join the engineering profession, I wish you all the best. Joining MUST will not only help you realize your dreams but also add value to the esteemed name of our university.



Wajid Hussain Shah,
Technical Director
Huawei Kingdom of
Saudi Arabia
Session: B.Sc. Civil
Engineering, 2009 – 2013

As a proud graduate of MUST’s Civil Engineering Department, I reflect on my time there as a period of significant growth and learning. The department’s rigorous curriculum, combining theory with practical skills, thoroughly prepared me for the challenges of the field. The dedicated faculty fostered curiosity and innovation, while the state-of-the-art facilities and advanced engineering software provided invaluable hands-on experience. MUST’s commitment to excellence and focus on developing skilled, forward-thinking engineers has been pivotal in shaping my professional journey.



Major Syed Irfan
Haider, R.E, MIE (Pak)
Pak Army Corps of
Engineers
Session: B.Sc. Civil
Engineering, 2011 –
2015

As a Senior Engineer at EKFB, working on the groundbreaking HS2 project, I owe much of my success to the exceptional civil engineering department at MUST. Their guidance was instrumental in shaping my skills, and I am deeply grateful for their support. Together, let’s keep building a brighter future!



Ammar Nisar, Senior
Engineer
Eiffage, Kier, Ferrovia
Construction and BAM
Nuttall United Kingdom
Session: B.Sc. Civil
Engineering, 2012 – 2016



Graduating as a Civil Engineer from Mirpur University of Science and Technology (MUST) in 2017 was the beginning of an exciting journey. I had always envisioned myself as an entrepreneur, eager to apply the knowledge I had gained and explore innovative solutions within the field of engineering. Four years ago, I founded Kataria Engineering and Consultancy Services, specializing in Engineering Design, Geotechnical Investigations, Construction, and Supervision. This venture has been an incredibly rewarding experience, and much of the credit goes to my parents, whose unwavering support kept me motivated, and to the faculty at CED, MUST, who equipped me with the strong foundational knowledge and critical thinking skills needed to venture into entrepreneurship. The hands-on experience and comprehensive education I received have enabled me to turn my vision into reality.



Atlas Karim Kataria,
Founder Kataria
Engineering and
Consultancy Services
Pakistan
B. Sc. Civil Engineering
Session: B.Sc. Civil
Engineering, 2013 –
2017

As a proud alumnus of this esteemed department, I'm excited to share that I'm currently working as a Planning and Coordination Engineer at Ittefaq Group Pvt. Ltd. The education and experiences I gained during my time here laid a strong foundation for my career, and I'm deeply grateful for the impact they've had on my professional journey. Wishing the department continued success and growth. May it continue to inspire and nurture future engineers with the same passion and excellence.

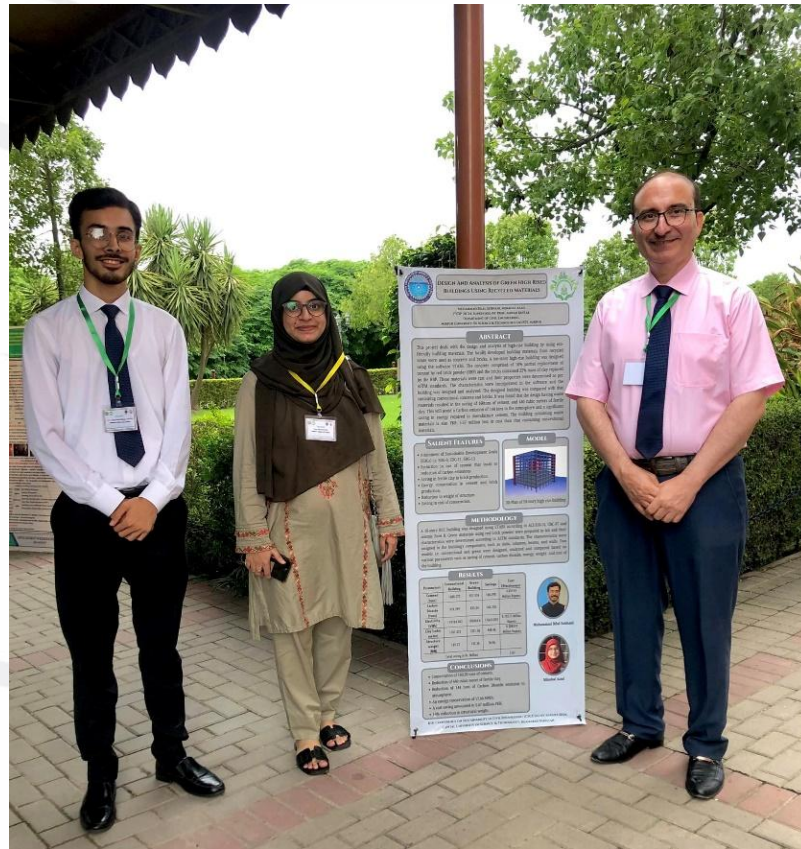


Muhammad Ibrahim
Mustafai, Planning
Engineer
Ittefaq Group Pvt. Ltd.
Pakistan
Session: B.Sc. Civil
Engineering, 2015 – 2019

Hi, I'm Engineer Faizan Tariq Abbasi, a proud alumnus of MUST's Civil Engineering program (2018-2022). Currently, I work as a Contract and Settlement Engineer at the Diamer Basha Dam Project with Power China Construction Corporation Limited, one of the world's leading construction companies. I credit my success to MUST's strong academic foundation, advanced skill development, and industry insights. With two years of experience, I confidently recommend MUST for its commitment to excellence, innovative learning, and dedicated faculty, all of which prepare students to make a meaningful impact in the world.



Faizan Tariq Abbasi,
Contract Engineer
Power China
Construction
Corporation
Pakistan
Session: B.Sc. Civil
Engineering, 2018 – 2022



Participation in 6th Conference on Sustainability in Civil Engineering (CSCE'24)







DEPARTMENT OF Computer System Engineering

Vision:

To be among the nation's premier computer systems engineering departments providing solutions in the field of engineering and emerging technologies to meet national and international socioeconomic challenges."

Degree Programs Offered

- B.Sc. (Computer Systems Engineering)
- M.Sc. (Computer Systems Engineering)
- Ph.D. (Computer Systems Engineering)



Chairperson:

Engr. Dr. Zafar Ali Khan

Tel: +92-5827-960037

E-mail: chairman.cse@must.edu.pk

Message from Chairperson:

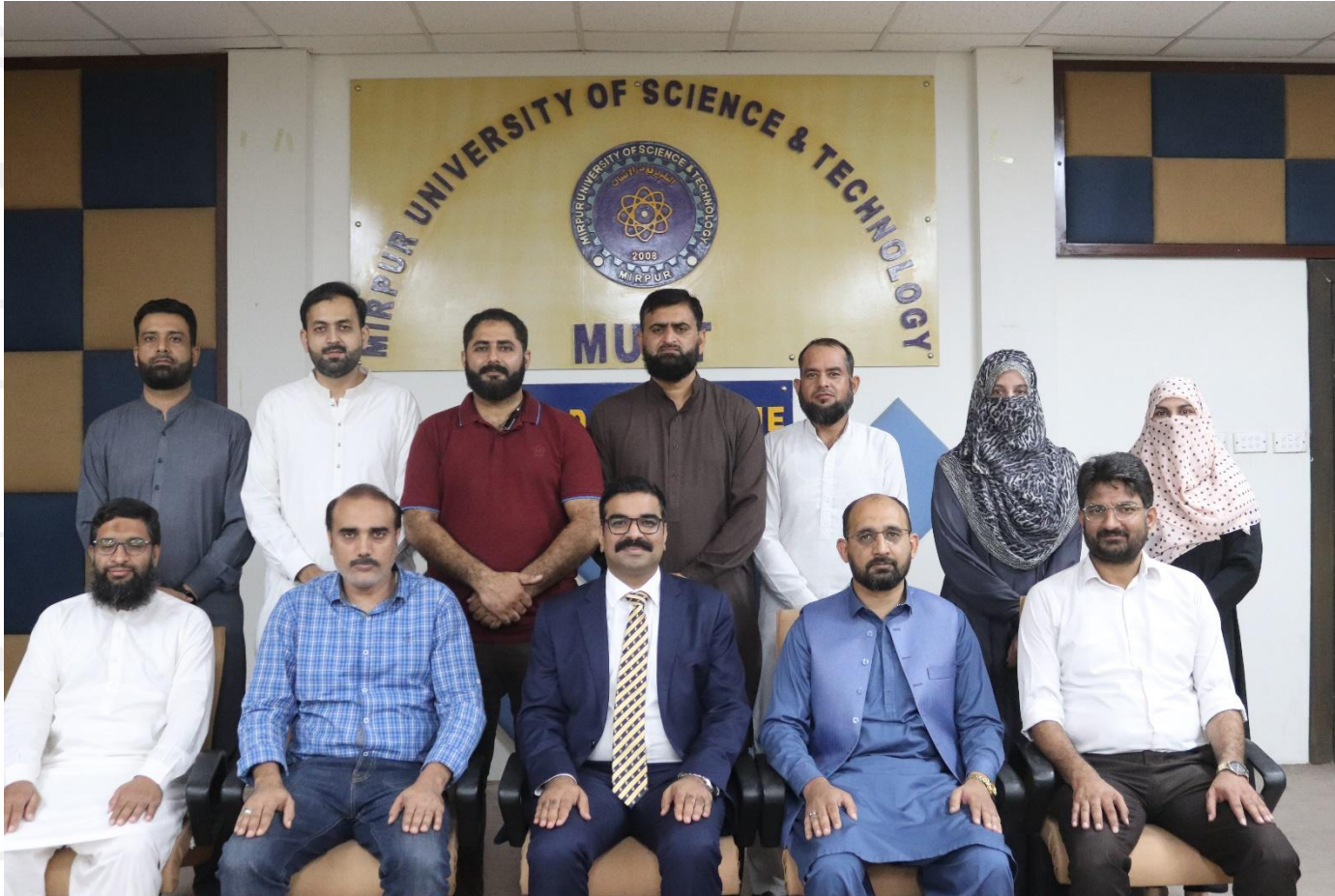
At the Mirpur University of Science and Technology, the Department of Computer Systems Engineering stands as a beacon of innovation and excellence. We are dedicated to equipping students with the critical, industry-relevant skills needed to thrive in today's fast-evolving technological landscape. Our department strives to foster not only academic excellence but also the confidence and leadership required for professional success.

With access to cutting-edge labs and a faculty passionate about the latest advancements in technology, students are immersed in a dynamic learning environment. Our goal is to empower them with both technical expertise and problem-solving capabilities, preparing them to be future leaders in their field.

Graduates from our department have access to a broad spectrum of career opportunities, including roles in mobile telecommunications multinationals, Pakistan Telecommunication Company Limited (PTCL), the Research Industry, the Pakistan Navy,

Pakistan International Airlines (PIA), the National Database and Registration Authority (NADRA), and many more. Moreover, our alumni excel in areas such as software development, banking, stock exchanges, and public sector organizations like the Atomic Energy Commission and the Pakistan Railways.

Upon completing their degrees, students are not only well-positioned for immediate employment but also eligible to pursue postgraduate education in specialized fields.



Faculty members of Computer Systems Engineering



Faculty Members

Engr. Dr. Zafar Ali Khan

Designation: Assistant Professor & Coordinator

Qualification: PhD(EE)

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Engr. Dr. Wahab Ali Gulzar

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Engr. Firdous Kanwal

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Engr. Hafeez Ahmed

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Engr. Safeena Razaq

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Qualification: MS(CSE)
Area of interest: Pattern Recognition
E-mail: safeena.cse@must.edu.pk



B.Sc. Computer Systems Engineering

The Department of Computer Systems Engineering was established in 2005, and since then it has continuously expanded and is on the road of progress. It is the pioneer department in its field in the state of AJ&K and has been imparting a useful and erudite workforce to the nation. The facilities and opportunities for faculty and students are exemplary.

Admission Requirements

- F.Sc. Pre-Engineering/Pre-Medical/ICS (Math, Physics, Computer Science) at least 60 %-marks
- OR
- 3 Year post-metric Diploma of Associate Engineer in the relevant field with a minimum of 60% marks.
- Candidates are required to pass an entrance test to fulfil the eligibility criteria.

Program Educational Objectives (PEOs)

- Be able to address real-life problems by translating learned engineering knowledge for designing and implementing computing systems.
- Be able to apply in-depth computer systems engineering knowledge to identify and solve technical challenges fulfilling the needs of society with consideration of the environmental impact and ethical values.
- Be able to lead as an individual or contribute as a team member and continually adapt with the upcoming trends of technology by continuous professional development for meeting individual and societal goals.

PEOs conformity with the department's vision and mission

	<i>Department Vision</i>	<i>Department Mission</i>
PEO 1	<i>Solution provision</i>	<i>Problem solver</i>
PEO 2	<i>Societal challenges</i>	<i>Social values</i>
PEO 3	<i>Intellectual development</i>	<i>Life-long learners</i>

Mapping of PLOs to PEOs.

PLOs	PEO1	PEO2	PEO3
1. Engineering Knowledge	X		
2. Problem Analysis	X		
3. Design/Development of Solutions	X		
4. Investigation	X		
5. Modern Tool Usage		X	
6. Engineer and Society		X	
7. Environment and Sustainability		X	
8. Ethics		X	
9. Individual and Teamwork			X
10. Communication			X
11. Project Management			X
12. Lifelong Learning			X



Scheme of Study

Minimum Duration:	8 Semesters
Courses:	43
Final Year Project:	6 Credits
Comprehensive oral examination:	S/U Basis
Internship/Practical Training:	S/U Basis
Total Credits	136

Course Code	Course Title	Credit Hours		Pre-req.
		(Theory)	(Lab)	
Semester 1				
MAT-1105	Calculus and Analytical Geometry	3	0	
ISL-1112	Islamic Studies/Ethics (for non-Muslims)	2	0	
ICT-1126	Application of Information and Communication Technologies	2	0	
ICT-1126L	Application of Information and Communication Technologies (Lab)	0	1	

PHY-1108	Applied Physics	2	0	
PHY-1108L	Applied Physics (Lab)	0	1	
ENG-1103	Functional English	3	0	
CSE-1101L	Engineering Workshop	0	1	
ICP-1129	Ideology and Constitution of Pakistan	2	0	
HQT-1128	Holy Quran with Translation, Tajweed, and Tafseer	0	0	
Total		14	3	
Semester 2				
MAT-1206	Complex Variables and Transforms	3	0	
CSE-1201	Circuit Analysis	3	0	
CSE-1201L	Circuit Analysis (Lab)	0	1	
CSE-1202	Computer Programming	3	0	
CSE-1202L	Computer Programming (Lab)	0	1	
CSE-1203	Electronic Devices and Circuits	3	0	
CSE-1203L	Electronic Devices and Circuits (Lab)	0	1	



QTR-1227	Quantitative Reasoning-I	3	0	
HQT-1128	Holy Quran with Translation, Tajveed, and Tafseer	0	0	
Total		15	3	
Semester 3				
CSE-2301	Digital Logic Design	3	0	
CSE-2301L	Digital Logic Design (Lab)	0	1	
ENG-2307	Expository Writing	3	0	
CSE-2302	Object Oriented Programming	3	0	CSE-1202, CSE-1202L
CSE-2302L	Object Oriented Programming (Lab)	0	1	CSE-1202, CSE-1202L
QTR-2328	Discrete Structures and Quantitative Reasoning-II	3	0	
MAT-2304	Linear Algebra	2	0	
MDE-2303	Occupational Health and Safety	1	0	
HQT-1128	Holy Quran with Translation, Tajveed, and Tafseer	0	0	
Total		15	2	

Semester 4				
MAT-2405	Differential Equations	3	0	
CSE-2401	Data Structures and Algorithms	3	0	
CSE-2401L	Data Structures and Algorithms (Lab)	0	1	
CSE-2402	Signals & Systems	3	0	MAT-1206
CSE-2402L	Signals & Systems (Lab)	0	1	MAT-1206
CSE-2403	Computer Architecture and Organization	3	0	
CSE-2403L	Computer Architecture and Organization (Lab)	0	1	
MAN-2411	Engineering Project Management	2	0	
HQT-1128	Holy Quran with Translation, Tajveed, and Tafseer	0	0	
Total		14	3	
Semester 5				
CSE-3501	Microprocessors and Interfacing	3	0	



CSE-3501L	Microprocessors and Interfacing (Lab)	0	1	
CSE-3502	Digital Signal Processing	3	0	CSE-2402, CSE-2402L
CSE-3502L	Digital Signal Processing (Lab)	0	1	CSE-2402, CSE-2402L
CSE-3503	Computer Communication Networks	3	0	
CSE-3503L	Computer Communication Networks (Lab)	0	1	
CSE-3504	Database Management System	3	0	
CSE-3504L	Database Management System (Lab)	0	1	
CCE-3530	Civics and Community Engagement	2	0	
HQT-1128	Holy Quran with Translation, Tajweed, and Tafseer	0	0	
Total		14	4	
Semester 6				

CSE-3601	Operating Systems	3	0	
CSE-3601L	Operating Systems (Lab)	0	1	
CSE-3602	Artificial Intelligence	2	0	
CSE-3602L	Artificial Intelligence Lab	0	1	
GS-3603	Probability and Statistics	2	0	
CSE-3604	Digital System Design	3	0	CSE-2301, CSE-2301L
CSE-3604L	Digital System Design (Lab)	0	1	CSE-2301, CSE-2301L
CSE-CEDE-I	Computer Engineering Depth Elective I	3	0	
CSE-CEDE-IL	Computer Engineering Depth Elective I (Lab)	0	1	
HQT-1128	Holy Quran with Translation, Tajweed, and Tafseer	0	0	
Total		13	4	
Semester 7				
ETRE-4708	Entrepreneurship	2	0	



CSE-CEDE-II	Computer Engineering Depth Elective II	3	0	
CSE-CEDE-III	Computer Engineering Depth Elective II (Lab)	0	1	
CSE-4701	Embedded Systems	3	0	CSE-3501, CSE-3501L
CSE-4701L	Embedded Systems (Lab)	0	1	CSE-3501, CSE-3501L
CSE-4702	Digital Image Processing	3	0	
CSE-4702L	Digital Image Processing (Lab)	0	1	
HQT-1128	Holy Quran with Translation, Tajweed, and Tafseer	0	0	
CSE-4705	Senior Design Project-I	3	0	
Total		16	3	
Semester 8				
ENG-4807	Technical Writing and Presentation Skills	3	0	
CSE-CEDE-III	Computer Engineering Depth Elective III	3	0	

CSE-CEDE-III	Computer Engineering Depth Elective III (Lab)	0	1	
CSE-4802	Mobile and Pervasive Computing	3	0	
CSE-4802L	Mobile and Pervasive Computing (Lab)	0	1	
HQT-1128	Holy Quran with Translation, Tajweed, and Tafseer	0	0	
CSE-4805	Senior Design Project-II	3	0	
Total		12	2	

Computer Engineering Depth Electives (CEDE)

Code	Course	Cr. Hr.
CSE-E001	Machine Learning	3+1
CSE-E002	Internet of Things	3+1
CSE-E003	Embedded System Design	3+1
CSE-E004	Systems Programming	3+1
CSE-E005	Algorithm Design and Analysis	3+1
CSE-E006	System and Network Security	3+1
CSE-E007	Image Processing and Analysis	3+1



CSE-E008	Control Engineering	3+1
CSE-E009	VLSI System Design	3+1
CSE-4702	Cloud and Distributed Computing	3+0

Multi-Disciplinary Engineering Electives (MDEE)

MDE-4001	Human Computer Interaction (UI/UX)	3+0
MDE-4002	Block Chain Technologies and Applications	3+0
MDE-4003	Neural Networks and Fuzzy Logic	3+0
MDE-4004	Robotics and Automation	3+0
MDE-4005	Mobile Application/Game Development	3+0
MDE-4006	Virtual Reality	3+0
MDE-4007	Software Quality Assurance	3+0
MDE-4008	Instrumentation and Controls	3+0
MDE-4009	Data Warehousing and Big Data	3+0
MDE-4010	Applied Thermodynamics	3+0
MDE-4011	GIS and Remote Sensing	3+0
MDE-4012	Health, Safety and Environment (HSE)	3+0
MDE-4013	Biomedical Engineering	3+0
MDE-4014	Business Process Re-engineering	3+0
MDE-4015	Industry 4.0	3+0



Program Streams

		Computer Programming & Artificial Intelligence		Computer Networking & Communication		Computer Hardware/Robotics		
CEDE	CSE-E001	Machine Learning		CSE-E003	Embedded System Design		CSE-E003	Embedded System Design
	CSE-E007	Image Processing and Analysis		CSE-E002	Internet of Things		CSE-E002	Internet of Things
	CSE-E004	Systems Programming		CSE-E006	System and Network Security		CSE-E009	VLSI System Design
	CSE-E002	Internet of Things		CSE-4703	Cloud and Distributed Computing		CSE-E004	Systems Programming
	CSE-E005	Algorithm Design and Analysis					CSE-E008	Control Engineering
	CSE-4703	Cloud and Distributed Computing					CSE-4703	Cloud and Distributed Computing
-----		-----		-----		-----		
MDEE	MDE-4005	Mobile Application/Game Development		MDE-4013	Health, Safety and Environment (HSE)		MDE-4002	Block Chain Technologies and Applications
	MDE-4002	Block Chain Technologies and Applications		MDE-4012	GIS and Remote Sensing		MDE-4004	Robotics and Automation
	MDE-4010	Data Warehousing and Big Data		MDE-4001	Human Computer Interaction (UI/UX)		MDE-4015	Business Process Re-engineering
	MDE-4013	Health, Safety and Environment (HSE)		MDE-4015	Business Process Re-engineering		MDE-4013	Health, Safety and Environment (HSE)
	MDE-4003	Neural Networks and Fuzzy Logic		MDE-4002	Block Chain Technologies and Applications		MDE-4014	Biomedical Engineering
				MDE-4016	Industry 4.0		MDE-4016	Industry 4.0



Laboratories

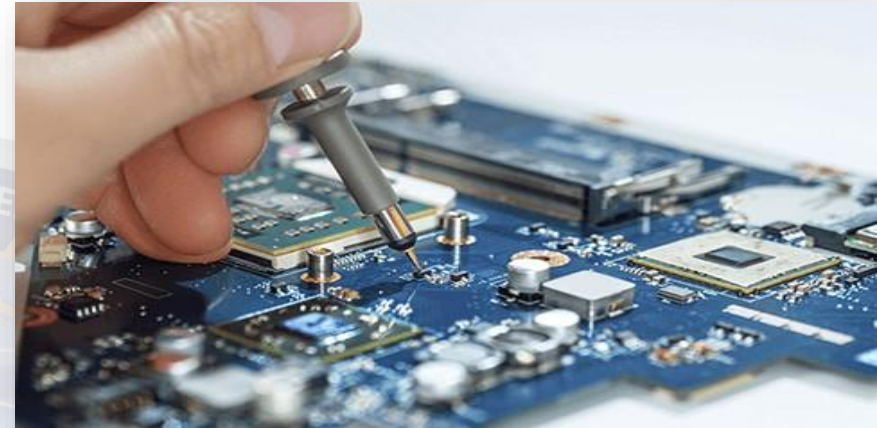
The laboratories in the Computer Systems Engineering Department are vital components of the department's teaching and learning environment, designed to provide students with hands-on experience and practical application of theoretical concepts. These state-of-the-art facilities are equipped with the latest tools, instruments, and technology to support diverse academic programs and research initiatives.

Computer Lab:

The department has a well-equipped lab with the latest computers, which cover Digital Image Processing, Artificial Intelligence, DBMS, Workshop Practice, Computer Networks, Mobile Wireless



Networks, Computer Fundamentals and Computer Programming subjects.



Embedded Lab:

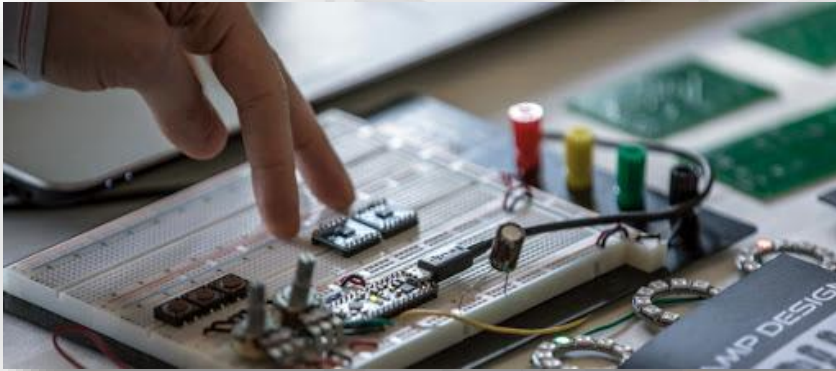
The embedded system lab is equipped with the latest computers, Microprocessor/Micro-controller trainers, Digital trainers and FPGA kits for various subjects like Microprocessors & Interfacing, Computer Architecture, Digital System Design, Digital Logic Design, Data Structure & Algorithms.

Communication/DSP Lab:

The Communication lab has Analog and Digital communication trainers, DSP trainers, oscilloscopes, DSK module kits, function generators, and computers for various subjects, such as digital Signal Processing, Communication Systems, and Signals & systems.

Digital and Electronics Lab.

The department has developed the lab for Digital design, circuit analysis, Electronic Devices and applied physics subjects. Lab has equipment like Digital trainers, oscilloscopes, multimeters, function generators, and power supplies to test and debug circuits.



Project Lab.

The department also has a final-year project lab where students design and implement their final-year projects.

M.Sc. Computer Systems Engineering Program

<p>Admission criteria</p> <ul style="list-style-type: none"> • BS/BE/BSc. Degree in Computer (Systems) Engineering, Software Engineering, Electronic Engineering, Electrical Engineering, Telecommunication Engineering, or a four-year degree in any other relevant discipline with a minimum of 65% marks in the semester system and a minimum of 50% marks in the annual system. • Candidate has no 3rd division in his/her academic career. • Registered with the Pakistan Engineering Council (PEC). • Candidate must have passed GAT/HAT/NTS general test, or equivalent test acceptable by the HEC/University.
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<p>Duration</p> <ul style="list-style-type: none"> • Two years (four semesters). • Minimum 31 credit hours from graduate Computer (Systems) Engineering courses.

<p>Degree Requirements</p> <p>To obtain M.Sc. (CSE) degree, a student must:</p> <ul style="list-style-type: none"> • Pass five (05) Core courses (15- credit hours). • Pass three (03) Elective courses (09-credit hours). • Satisfactorily complete a Research Project Thesis of 6 credit hours. • Pass seminar of 1 credit hour. • Pass a minimum of 31 credit hours.



Scheme of studies

Course Code	Course Title	Credit Hours.	
		Theory	Practical
Core Courses			
CSE-6201	Machine Learning	3	0
CSE-6202	Wireless Communication Networks	3	0
CSE-6203	Advanced Computer Architecture	3	0
CSE-6204	Parallel and Distributed Systems	3	0
CSE-6205	Deep Learning	3	0
CSE-6206	Advanced Topics in Computer Engineering	3	0
CSE-6207	Artificial Intelligence based Computer Architecture	3	0
CSE-6208	Advanced Digital Image Processing	3	0
CSE-5101	Computer Vision	3	0
CSE-5102	Advanced Operating Systems	3	0
CSE-5103	Advanced Microprocessor Systems	3	0
CSE-5104	Advanced Digital Signal Processing	3	0
CSE-5105	Advanced Digital Design	3	0
CSE-5106	Artificial Neural Networks	3	0
CSE-5107	Research Methodology &	3	0

	Ethics		
Elective Courses			
CSE-6209	Biomedical Image Analysis	3	0
CSE-6210	Pattern Recognition	3	0
CSE-6211	Network Security and performance analysis	3	0
CSE-6212	Multimedia Communication Systems	3	0
CSE-6213	Advanced VLSI Design	3	0
CSE-6214	Cryptography and security	3	0
CSE-6215	Special Topics in Bio-Medical Engineering	3	0
CSE-6216	System on Chip (SoC)	3	0
CSE-6217	Application Specific Integrated Circuit (ASIC)	3	0
CSE-6218	Robotics	3	0
CSE-5108	Cloud Computing	3	0
CSE-5109	Internet of Things (IoT)	3	0
CSE-5110	Semantic Web	3	0
CSE-5111	Big Data Analytics	3	0
CSE-5112	Genetic Algorithms	3	0
CSE-5113	Data Mining and Warehousing	3	0
CSE-5114	Computer Communication Networks	3	0
Seminar & Thesis			
CSE-7001	Seminar-I	1	0
CSE-7002	Thesis	6	0



Ph.D. Computer Systems Engineering

Admission/ Eligibility criteria

- MS/M.Phil. /M.Sc. (Engineering) or equivalent 18-years education with at least a CGPA 3.00/4.00 or at least CGPA 3.50/5.00 (at least 65% marks) in semester systems and 1st Division (60% marks) in an annual system of examination.
- Candidate should have no 3rd division in his/her academic career provided that in case of the teachers at the University/Degree colleges engaged in postgraduate teaching and employees of the research organizations engaged in research, the vice chancellor may relax the condition 3rd division in matriculation or F.A/F.Sc. degree on compassionate grounds.
- The candidate must have passed the GRE/GAT (General)/UGAT test or equivalent test acceptable by the HEC/University.

Total Credit Hours:

Courses	18-Credit Hours
Seminar – I	01-Credit Hour
Seminar -II	01-Credit Hour
Comprehensive Oral/Written Examination	S/U basis
Thesis	50 Credits
Total Credits	70

Ph.D. Computer Systems Engineering (Semester Plan)			
Sr#.	Course Code	Course Title	Cr. Hrs.
Year-1 Semester-I			
1.	CSE-7105	Research Methodologies	3
2.	CSE-710x	Core Elective -I	3
3.	CSE-720x	Core Elective -II	3
Year-1 Semester-II			
4.	CSE-720x	Core Elective -III	3
5.	CSE-720x	Core Elective -IV	3
6.	CSE-710x	Elective -V	3
Year-2 Semester- III & IV			
7.		Comprehensive examination	S/U
8.	CSE-8000	Synopsis/Research Proposal	A/D
9.	CSE-7998	Seminar-I	1
Year-3 Semester- V & VI			
10.	CSE-7999	Seminar-II	1
11.	CSE-8000	Thesis	50

Semester wise break-up of Credit Hours

Semester Plan and List of Courses:

Scheme of studies:

Course Code	Course Title	Cr. Hrs.	
		Theory	Practical
Core Elective Courses			



CSE-7201	Advanced Computer Architecture	3	0
CSE-7202	Artificial Intelligence based Computer Architecture	3	0
CSE-7203	Wireless Communication Networks	3	0
CSE-7101	Advanced Digital Image Processing	3	0
CSE-7102	Advanced Operating Systems	3	0
CSE-7103	Advanced Microprocessor Systems	3	0
CSE-7104	Advanced Digital Design	3	0
CSE-7105	Research Methodologies	3	0
Elective Courses			
CSE-7204	Parallel and Distributed Systems	3	0
CSE-7205	Advanced Topics in Computer Engineering	3	0
CSE-7206	Computer Vision	3	0
CSE-7207	Deep Learning	3	0
CSE-7208	Machine Learning	3	0
CSE-7209	Bio Medical Image Analysis	3	0
CSE-7210	Network Security and performance analysis	3	0
CSE-7211	Multimedia Communication Systems	3	0
CSE-7212	Advanced VLSI Design	3	0
CSE-7213	Cryptography and security	3	0
CSE-7214	Robotics	3	0
CSE-7106	Advanced Digital Signal Processing	3	0
CSE-7107	Artificial Neural Networks	3	0

CSE-7108	Cloud Computing	3	0
CSE-7109	Pattern Recognition	3	0
Cse-7110	Internet of Things (IoT)	3	0
CSE-7111	Semantic Web	3	0
CSE-7112	Big Data Analytics	3	0
CSE-7113	Genetic Algorithms	3	0
CSE-7114	Data Mining and Warehousing	3	0
Thesis & Seminars			
CSE-7998	Seminar-I	1	0
CSE-7999	Seminar-II	1	0
CSE-8000	Thesis	50	0



Details about departmental focal persons

Examination Committee for M.Sc.

Engr. Dr. Zafar Ali Khan (Assistant Professor)	Convener
Engr. Bilal Ahmed (Assistant Professor)	Secretary
Engr. Muhammad Waqas Ahmed (Lecturer)	Member

Examination Committee for B.Sc.

Engr. Abdul Basit Awan (Assistant Professor)	Chairman
Engr. Waqas Riaz (Lecturer)	Secretary
Engr. Raja M. Basharat Manzoor (Assistant Professor)	Member
Engr. Qasim Yaqoob (Lecturer)	Member

Merit Scholarship Committee

Engr. Dr. Zafar Ali Khan (Assistant Professor)	Chairman
Engr. Hafiz Ata ul Mustafa Ahtesham (Lecturer)	Secretary
Engr. Bilal Ahmed (Assistant Professor)	Member

Sports Committee

Engr. Hafeez Ahmed (Lecturer)	Member
Engr. Qasim Yaqoob (Lecturer)	Member

Student Coordinator/Course Advisor

Engr. Qasim Yaqoob (Lecturer)	Member
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Library In charge

Engr. Firdous Kanwal (Lecturer)	Member
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Final Year Project Committee

Engr. Dr. Wahab Ali Gulzar (Assistant Professor)	Chairman
Engr. Hafiz Ata ul Mustafa Ahtesham (Lecturer)	Secretary
Engr. Waqas Ahmed (Lecturer)	Member

Departmental Academic Review Committee (DARC)

Engr. Dr. Zafar Ali Khan (Assistant Professor)	Chairman
Engr. Dr. Wahab Ali Gulzar (Assistant Professor)	Secretary
Engr. Muhammad Usman Khan (Assistant Professor)	Member
Engr. Bilal Ahmed (Assistant Professor)	Member

PEO Assessment Committee (PAC)

Engr. Qasim Yaqoob (Lecturer)	Chairman
Engr. Hafiz Ata ul Mustafa Ahtesham (Lecturer)	Secretary
Engr. Muhammad Waqas Ahmed (Lecturer)	Member

Under-Graduate Committee (UGC)

Engr. Abdul Basit Awan (Assistant Professor)	Chairman
Engr. Raja M. Basharat Manzoor (Assistant Professor)	Secretary
Engr. Qasim Yaqoob (Lecturer)	Member

Director CQI

Engr. Muhammad Usman Khan (Assistant Professor)	Director
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Industrial Liaison Officer

Engr. Irfan Jamshed (Lecturer)	Chairman/Member
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Graduate Advisory Committee

Engr. Dr. Ashfaq Ahmed (Assistant Professor)	Chairman
Engr. Waqas Riaz (Lecturer)	Secretary
Engr. Sarish Abid (Lecturer)	Member

Health and Safety Committee

Engr. Hafeez Ahmed (Lecturer)	Chairman
Engr. Safeena Razaq (Lecturer)	Secretary/Member

Collaboration and Outreach Committee

Engr. Qasim Yaqoob (Lecturer)	Chairman
Engr. Irfan Jamshed (Lecturer)	Secretary/Member



Success Stories

I entered the gates of MUST as an ambitious yet completely raw and vacillated creature, but the excellent academic and social blessings of MUST transformed me into a goal oriented professional. MUST in general and the Computer Systems Engineering (CSE) Department particularly developed an attitude of creativity and exploration that became the baseline of my professional career.

As an Alumnus, I feel firmly connected to my alma mater through every walk of my life. I am grateful to my devoted and highly learned teachers of Computer Systems Engineering who invested into me and I owe every bit of my success to them.



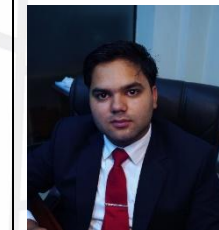
Engr. Farhad Aslam
CSE Session 2006-2010
Program Architect
Artificial Intelligence
at Afiniti USA

During my stay at MUST, I got a chance to find my interests and polish my skills. Being a part of one of MUST most prestigious schools was a great experience. The faculty and staff at CSE are very encouraging and helpful. They helped me grow not only in academics but also as a human being. I learnt to balance my social life and work. CSE taught me how to be productive under stress. It also taught me to not worry about things too much because everything happens for a reason. MUST give you a hard time but it's all worth it in the end.



Engr. Amjid Hussain
CSE Session 2013-2017
Assistant Programmer at
Ministry of Defence
(POF),
Former PACS/HMIS Manager at
PACSLINK CORPORATION PVT.LTD.

Having studied Computer Systems Engineering at the MUST, AJK I have already been doing freelance software projects since my 3rd semester, when I was in 7th semester, I decided to start with the UK based digital marketing and Web design agency, Mangobit Ltd. I was into my career in the final year of my engineering degree as a young entrepreneur serving my clients globally having a UK based agency. In 2020 I decided to invest locally in surveillance and solar energy services Company named A&R Technologies, Ltd. Going from Computer Systems Engineering student to owner of AJK's Largest Digital, Surveillance and Solar Energy Company is an interesting route. As ex-president of AKCS (A departmental Society for tech skills) I am always available for free training sessions for MUST students.



Engr. Tayyab Aziz
Session 2015-19
CSE Department,
MUST



DEPARTMENT OF Electrical Engineering

Vision

Endeavour to provide quality Electrical Engineering education for the development of human resource, which contributes for the development of highly skilled workforce, innovators and entrepreneurs.

Degree Programs Offered

B.Sc. Electrical Engineering
M.Sc. Electrical Engineering
Ph.D. Electrical Engineering





Chairperson:

Engr. Prof. Dr. Naeem Iqbal Ratyal

Tel: +92-5827-960099

E-mail: chairman_ee@must.edu.pk

Message from Chairperson:

Department of Electrical Engineering (DEE) was initially raised in 1980 as a constituent college of the University of Azad Jammu and Kashmir, Muzaffarabad. On its establishment in 2008, the DEE was merged with Mirpur University of Science and Technology (MUST) and is offering an undergraduate program in Electrical Engineering accredited by Pakistan Engineering Council at Level-II under Washington Accord. The department also offers Electrical Engineering degree programs at the master's and Ph.D. levels. The DEE enjoys a bright history of educating students in diverse disciplines. Situated in the city center, the DEE endeavors to provide a favorable climate of knowledge with well-equipped laboratories, a library furnished with modern facilities, undergraduate hostels for boys and girls, examination halls, and lecture rooms. Since its inception, the DEE has worked hard to improve the quality of its faculty.

The DEE is honored to have a vibrant combination of highly qualified faculty, who graduated from universities of high repute. The DEE MUST is producing graduates for last 42 years and its graduates have meaningful and conspicuous representation in

organizations related to power, communication, and electronic industry within and even outside Pakistan. Furthermore, faculty and students of the department boldly contribute towards co-curriculum activities. The department strives to enrich its traditions and disciplined environment for the campus life of the student



Faculty members of Electrical Engineering



Faculty Members

Engr. Dr. Syed Hassan Mujtba Jafri (on Leave)

Designation: Professor

Qualification: Ph.D.

Area of interest: Engineering Sciences

Engr. Dr. Muhammad Sajid

Designation: Professor

Qualification: Ph.D.

Area of interest: Image Processing

Engr. Dr. Anzar Mahmood

Designation: Associate Professor

Qualification: Ph.D.

Area of interest: Power Engineering

Engr. Muhammad Imran

Designation: Assistant Professor

Qualification: Ph.D. (Cont.)

Area of interest: Electronics

Engr. Munawar Sultan

Designation: Assistant Professor

Qualification: Ph.D. (Cont.)

Area of interest: Power Engineering

Engr. Dr. Naeem Iqbal Ratyal

Designation: Professor

Qualification: Ph.D.

Area of interest: Image Processing

Engr. Dr. Muhammad Ilyas Menhas

Designation: Associate Professor

Qualification: Ph.D.

Area of interest: Control Engineering

Engr. Shahid Amin

Designation: Assistant Professor

Qualification: Ph.D. (Cont.)

Area of interest: Electronics

Engr. Asif Raza Butt

Designation: Assistant Professor

Qualification: Ph.D. (Cont.)

Area of interest: Electronics

Engr. Rab Nawaz

Designation: Assistant Professor

Qualification: Ph.D. (Cont.)

Area of interest: Power Engineering



Engr. Mirza Ateeq Ahmed Baig

Designation: Assistant Professor

Qualification: Ph.D. (Cont.)

Area of interest: Power Systems and Energy Management

Engr. Dr. Anwar Ul Haq

Designation: Assistant Professor

Qualification: Ph.D.

Area of interest: Energy Informatics

Engr. Faheem Ashiq

Designation: Lecturer

Qualification: M.Sc.

Area of interest: Power Engineering

Engr. Nazish Habib

Designation: Lecturer

Qualification: Ph.D. (Cont.)

Area of interest: Image Processing

Engr. Shafaq Ejaz (on Study Leave)

Designation: Lecturer

Qualification: Ph.D. (Cont.)

Area of interest: Electronics

Engr. Jabbar Younis

Designation: Lecturer

Qualification: M.Sc.

Area of interest: System On Chip

Engr. Dr. Saeed Ahmed

Designation: Assistant Professor

Qualification: Ph.D.

Area of interest: Smart Grid

Engr. Dr. Omer Sher

Designation: Lecturer

Qualification: Ph.D.

Area of interest: Engineering Sciences

Engr. Benish Kanwal

Designation: Lecturer

Qualification: Ph.D. (Cont.)

Area of interest: Optical Systems

Engr. Shahbaz Baig

Designation: Lecturer

Qualification: Ph.D. (Cont.)

Area of interest: Power Systems

Engr. Dr. Adil Amin

Designation: Lecturer

Qualification: Ph.D.

Area of interest: Power Systems and Energy Management

Engr. Dr. Usman Mussadiq

Designation: Lab Engineer / Jr. Lecturer

Qualification: Ph.D.

Area of interest: Power Engineering



Engr. M. Usman Bashir

Designation: Lab Engineer

Qualification: M.Sc.

Area of interest: Power Engineering

Engr. Usama Samad (on Study Leave)

Designation: Lab Engineer / Jr. Lecturer

Qualification: Ph.D. (Cont.)

Area of interest: Control Engineering

Engr. Mahmood Ul Hassan

Designation: Lab Engineer

Qualification: B.Sc.

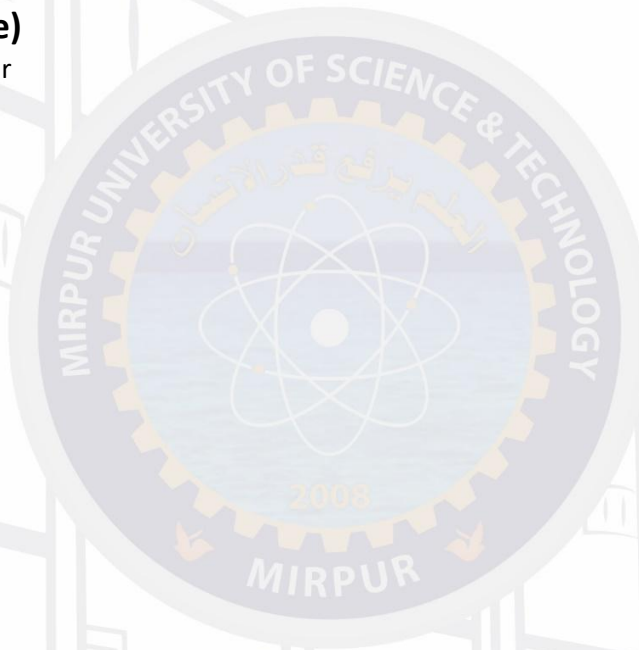
Area of interest: Electronics

Engr. M. Usman Zafar

Designation: Lab Engineer / Jr. Lecturer

Qualification: Ph.D. (Cont.)

Area of interest: Power Engineering





Electrical Engineering

The Department of Electrical Engineering was initially raised in 1980 as a unit college of the University of AJ&K, Muzaffarbad. On the establishment of Mirpur University of Science and Technology (MUST) in 2008, the DEE became its mother department and is offering programs in Electrical, Electronics, and Telecommunication at Undergraduate, Masters, and Ph.D. levels. Since its inception, the department has been maintaining accreditation of its programs with Pakistan Engineering Council (PEC). This, of course, stands at the apex of the engineering arena. Communication, power, and electronics are the off spring seedlings of Electrical Engineering. Electrical Engineers find vast horizon of opportunities to ensure their contribution in facilitating the life on earth. Their contribution may be traced in communication computers, defense, design, aerospace also, more effectively in the telecom, electronic power and control industry.

The absorption of electrical engineers graduates from MUST is found largely in WAPDA, PTCL, Pakistan Navy, PIA, Air Force, Atomic Energy Commission, KRL, POF, AWC, PWD, NDC, Education, Telecomm and Power industry, modern textile industry, Hydel Power and Electricity Department.

The department has shifted on Outcome Based Education (OBE) and successfully got PEC accreditation at level II for its batch 2016. The batches on level II will enjoy acceptance of their degrees in the developed countries, signatories of Washington Accord, such as USA, UK, Germany, Singapore, Malaysia, and Turkey etc.

Department Mission

The Department of Electrical Engineering seeks to provide comprehensive, rigorous and accredited educational programme for the undergraduate and graduate students for the development of well rounded, educated, productive and ethical engineers with robust professional skills, who are capable of exploring diverse interest and can launch successfully into variety of careers offering learning, services and leadership role in various national and international organizations.

B.Sc. Electrical Engineering

Program Educational Objectives (PEOs)

- **PEO-1:** Serve competently in national and international industry or academia by showing excellent skills and knowledge in the field of Electrical Engineering.
- **PEO-2:** Exhibit the quest for learning and initiative through elevation in education or growth in professional status.
- **PEO-3:** Demonstrate commitment to ethical practices, community service and societal contribution.

Scheme of Study

Program Duration:	8-14 Semesters (4-7 Academic Years)
Total number of Credit Hours (CH) inclusive of 6-credit project:	136
Final Year Project Credits	6
Internship/Practical Training:	S/U Basis



Engineering Domain Courses:	95 (69.85%)
(Power/ Communication/ Electronics/ Electric Vehicles)	
Non-Engineering Domain Courses:	41 (30.14%)
(Basic Sciences/ Arts/ Humanities)	

*** Both Theory and Lab must be passed for all Pre-Requisite Courses.**

Semester 1				
Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-req.*
ENG-1103	Functional English	3	3	
MAT-1105	Calculus and Analytical Geometry	3	3	
BEE-1101	Linear Circuit Analysis	3	3	
BEE-1101L	Linear Circuit Analysis Lab	1	3	
ICT-1126	Applications of Information and Communication Technologies	2	2	
ICT-1126L	Applications of Information and Communication Technologies Lab	1	3	
BEE-2404L	Engineering Drawing	1	3	

PHY-1108	Applied Physics	2	2	
PHY-1108L	Applied Physics Lab	1	3	
Total		17	25	

Semester 2

Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-req.*
MAT-2305	Differential Equations	3	3	
	Natural Science Elective	3	3	
BEE -1201	Computer Programming	3	3	
BEE -1201L	Computer Programming Lab	1	3	
BEE-1202L	Electrical Workshop Practice	1	3	
ICP-2329	Ideology and Constitution of Pakistan	2	2	
BEE -1203	Electronic Devices and Circuits	3	3	
BEE -1203L	Electronic Devices and Circuits Lab	1	3	
Total		17	23	

Semester 3

Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-req.*
MAT-2406	Complex Variables and Transforms	3	3	



	Arts and Humanities Elective	2	2	
BEE-2301	Electrical Network Analysis	3	3	BEE-1101, BEE-1101L
BEE-2301L	Electrical Network Analysis Lab	1	3	
BEE-2303	Digital Logic Design	3	3	
BEE-2302	Data Structures and Algorithms	3	3	BEE-1201, BEE-1201L
BEE-2302L	Data Structures and Algorithms Lab	1	3	
BEE-2303L	Digital Logic Design Lab	1	3	
MDE -2303	Occupational Health and Safety	1	1	
Total		18	24	
Semester 4				
Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-req.*
	Social Sciences Elective	2	2	
MAT-1204	Linear Algebra	3	3	
ISL-1212	Islamic Studies/ Ethics	2	2	
BEE-2401	Probability and Statistics for Engineers	3	3	
BEE-2402	Signal and Systems	3	3	
BEE-2402L	Signal and Systems Lab	1	3	

BEE-2403	Electromagnetic Field Theory	3	3	
Total		17	17	
Semester 5				
Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-req.*
BEE-3501	Electrical Machines	3	3	
BEE-3501L	Electrical Machines Lab	1	3	
BEE-3502	Microprocessors and Interfacing	3	3	
BEE-3502L	Microprocessors and Interfacing Lab	1	3	
BEE-3503	Communication Systems	3	3	BEE-2402, BEE-2402L
BEE-3503L	Communication Systems Lab	1	3	
CEE-2330	Civics and Community Engagement	2	2	
	Multi-Disciplinary Domain Engineering Elective	3	3	
Total		17	23	
Semester 6				
Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-req.*
ENG-2407	Expository Writing	3	3	



BEE-3601	Linear Control Systems	3	3	
BEE-3601L	Linear Control Systems Lab	1	3	
BEE-3602	Power Distribution and Utilization	3	3	
BEE-3602L	Power Distribution and Utilization Lab	1	3	
	Artificial Intelligence	3	3	
	Artificial Intelligence Lab	1	3	
MAN-3511	Project Management	2	2	
Total		17	23	
Semester 7 (Power)				
Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-req.*
BEE-4701	Power System Analysis	3	3	
BEE-4701L	Power System Analysis Lab	1	3	
BEE-4702	Power Generation	3	3	
	Depth Elective -III	3	3	
	Depth Elective -III Lab	1	3	
	Depth Elective -IV	3	3	
	Depth Elective -IV Lab	1	3	

BEE-4805	Final Year Project-I	2	6	
Total		17	27	
Semester 7 (Electronics)				
Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-req.*
BEE-4701	Electronic Circuit Design	3	3	
BEE-4701L	Electronic Circuit Design Lab	1	3	
BEE-4702	Power Electronics	3	3	
BEE-4702L	Power Electronics Lab	1	3	
	Depth Elective -III	3	3	
	Depth Elective -III Lab	1	3	
	Depth Elective -IV	3	3	
BEE-4805	Final Year Project-I	2	6	
Total		17	27	
Semester 7 (Communication)				
Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-req.*
BEE-4701	Electronic Circuit Design	3	3	
BEE-4701L	Electronic Circuit Design Lab	1	3	
BEE-4702	Computer Communication Networks	3	3	



BEE-4702L	Computer Communication Networks Lab	1	3	
	Depth Elective -III	3	3	
	Depth Elective -III Lab	1	3	
	Depth Elective -IV	3	3	
BEE-4805	Final Year Project-I	2	6	
Total		17	27	

Semester 7 (Electric Vehicles)

Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-req.*
BEE-4701	Automotive Engineering	3	3	
BEE-4701L	Automotive Engineering Lab	1	3	
BEE-4702	EV Charging Devices and Technologies	3	3	
BEE-4702L	EV Charging Devices and Technologies Lab	1	3	
	Depth Elective -III	3	3	
	Depth Elective -III Lab	1	3	
	Depth Elective -IV	3	3	
BEE-4805	Final Year Project-I	2	6	
Total		17	27	

Semester 8 (Power/ Electronics/ Communication/ Electric Vehicles)

Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-req.*
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ETR-3608	Entrepreneurship	2	2	
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	S/U	1	
	Depth Elective-V (Power/ Electronics/ Communication/ EV)	3	3	
	Flexible Engg./ Non-Engg. Elective-II (Power/ Electronics/ Communication/ EV)	3	3	
	Flexible Engg./ Non-Engg. Elective-II Lab (Power/ Electronics/ Communication/ EV)	1	3	
	Flexible Engg./ Non-Engg. Elective-III (Power/ Electronics/ Communication/ EV)	3	3	
BEE-4805	Final Year Project-II	4	12	
Total		16	27	

List of Arts and Humanities Electives (2+0)

Course Title	Course Title
Communication and Presentation Skills	Sociology for Engineers



Beginners Spanish	Sociology for Engineers
Elementary Arabic	Social Psychology
Elementary French	Critical Thinking
Elementary Chinese	Human Resource Management
History	Organizational Behavior
Philosophy	Engineering Law
Professional Ethics	Engineering Economics
	Applied Psychology
Proposed Electives for Natural Science (3+0)	
Course Title	Course Title
Multivariable Calculus	Engineering Management
Discrete Mathematics	Financial Management
Numerical Analysis	Marketing Management
Applied Chemistry	Leadership and Personal Grooming
Biology	
List of Elective Courses (Power)	
Course Title	Pre-req.*
Electrical Power Transmission	

Power System Protection	
Renewable Energy Systems	
Power System Operation and Control	
Smart Grid	
High Voltage Engineering	
Electrical Machine Design and Maintenance	
Electrical Power Transmission	
FACTS and HVDC Transmission	
Power Electronics	
Instrumentation and Measurement	
List of Elective Courses (Electronics)	
Course Title	Pre-req.*
VLSI Design	
Embedded Systems	
Optoelectronics	
Medical Robotics	
RF and Microwave Engineering	BEE-2403
Biomedical Instrumentation	



Wave Propagation and Antennas	BEE-2403
Internet of Things (IoT)	
Analogue Integrated Electronics	
Digital Signal Processing	BEE-2402, BEE-2402L
FPGA Based Digital Design	
Digital Control	
Nanotechnology	
Micro Electro mechanical Systems (MEMS)	
Industrial Electronics	
Application Specific Integrated Circuits (ASIC) Design	
List of Elective Courses (Communication)	
Course Title	Pre-req.*
Wireless and Mobile Communications	
Optical Communications	
Navigation Systems	
Digital Image Processing	
Microwave and Radar Systems	BEE-2403
Biomedical Instrumentation	

Antenna and Wave Propagation	BEE-2403
Data Communications	
Internet of Things (IoT)	
Satellite Communications	
Digital Communications	
Next Generation Networks	
Wireless Network Systems	
Telecommunications Standards and Regulations	
Network Management	
Telecommunications Traffic Engineering	
Transmission and Switching Systems	
List of Elective Courses (Electric Vehicles)	
Course Title	Pre-req.*
Sensors and Actuators	
EV Batteries and Ancillaries	
EV Software	
EV Control Systems	
EV Integration with Power Grid	
Autonomous Vehicles	
EV Circuits and Electronics	
EV Body and Chassis Design	



Vehicular Networking	
EV Dynamics	

List of MDEs	
Course Title	Pre-req.*
Applied Mechanics	
Fluid Mechanics	
Thermodynamics	
Surveying and Levelling	
Bio-Mechanics	
Environmental Engineering	
Software Engineering	
Optimization Techniques	

List of Flexible Courses	
Course Title	Pre-req.*
Data Communications	
Data Analytics and Machine Learning	
Internet of Things (IoT)	
Artificial Intelligence for Electrical Engineers	
Intelligent Control	
Environment and Sustainability	
Python for Engineers	
Energy Informatics	





M.Sc. in Electrical Engineering

The Department of Electrical Engineering offers research-oriented multidisciplinary MSc in Electrical Engineering. The major tracks are Electronics, Power Systems, Telecommunication, Control & Automation, and Communication Systems & Networks. The department offers an evening program along with weekend learning opportunity and expects its graduates to provide engineering solutions to the society.

Program Educational Objectives

The M.Sc. in Electrical Engineering at MUST focuses to help students to develop confidence to work as professional and ready to explore new research dimensions of the discipline as a researcher.

- **PEO-1:** Acquire in-depth knowledge and abilities with quality advanced education in the chosen area of specialization of Electrical Engineering. (Quality Education)
- **PEO-2:** Identify and solve engineering problems by conducting intensive research and development to create better engineering solutions and present results in scientific forums to contribute to the advancement of science and technology. (Advanced Studies)
- **PEO-3:** Innovate and engage by continuous professional development in response to meeting individual goals as well as develop lifelong learning habits and abilities to solve various traditional and contemporary issues in Electrical Engineering. (Lifelong Learning)

Admission Criterion:

A candidate must:

- Have passed 16-years education with following minimal grades:

Education	Semester Based Examinations		Annual
	CGPA	Percentage	
16-Year	3.0 out of 4.00	65%	50%

- Candidate should have no 3rd division in his/ her academic career.
- The candidates must have passed the GRE/ HAT General/ GAT Equivalent tests, with a passing score of 50% or any other test as required by the University.
- Latest HEC Graduate Policy will be followed.

Degree Requirements:

A candidate must successfully complete 24 credit hours for course work and 06 credit hours of research work with an overall minimum CGPA of 2.5/4.00 for obtaining degree.

Scholarships Offered:

Studentship is offered in various funded research projects.

Duration:

The duration of the degree will not be less than three (03) semesters and more than eight (08) semesters.



Selection Criterion:

- Admissions will be granted on open merit basis (there is no quota seat).
- A candidate shall be selected on the basis of cumulative merit to be determined from his/ her past academic record and achievements in the written tests conducted by the Controller of Examinations and Interview by Admission Committee of the concerned discipline.
- The allocation of marks for determining merit shall be as follows:

Academic Record	55 marks
Admission Test	35 marks
Interview	10 marks

Scheme of Study

M.Sc. Electrical Engineering			
Semester I			
Course	Type	Subject	Cr. Hrs.
Course-1	Compulsory*	Offered from list of compulsory courses	3
Course-2	Core**	Offered from list of core courses	3
Course-3	Core**	Offered from list of core courses	3
Course-4	Specialization***	Any course from list of specialization courses	3
Semester II			

Course	Type	Subject	Cr. Hrs.
Course-5	Core	Offered from list of core courses	3
Course-6	Core	Offered from list of core courses	3
Course-7	Specialization	Any course from list of specialization courses	3
Course-8	Specialization	Any course from list of specialization courses	3

Semester III

Course	Type	Subject	Cr. Hrs.
Thesis	Compulsory	Postgraduate Thesis	6

Semester IV

Course	Type	Subject	Cr. Hrs.
Thesis	Compulsory	Postgraduate Thesis (continued)	6
Total Credits			30

* **Mandatory** course for M.Sc. Electrical Engineering
 ** Must be taken from core courses. Minimum of four (04) core courses must be taken
 *** Can be taken from specialized courses. Maximum of three (03) specialized courses allowed

PhD in Electrical Engineering

The Department of Electrical Engineering offers a PhD in Electrical Engineering. Research at this level covers all fields of Electrical



Engineering from nano-electronics to high power applications. It includes Electronics, Communication & Signal Processing, Power System & Energy Management, and Robotics & Control as key research areas. The department offers full-time program and expects that the students would produce original work with significant contribution to the knowledge in the field of study.

Program Educational Objectives

The PhD in Electrical Engineering at MUST focuses to prepare students having advanced knowledge and skills required to start research and/or teaching career in universities, research institutions or industry and to conduct independent research.

- **PEO-1:** Offer rigorous and innovative engineering education and training for the development of research-level scholars in the chosen area of specialization of Electrical Engineering. (Quality Education)
- **PEO-2:** Prepare graduates to identify and solve engineering problems by critically thinking, analyzing, and making decisions to create better engineering solutions that give due consideration to national as well as global issues in society and the environment. (Advanced Studies)
- **PEO-3:** Innovate and engage by committing to lifelong learning by embracing global challenges and opportunities to solve various traditional and contemporary issues to make a positive impact in the society. (Lifelong Learning)

Admission Criterion

The eligibility criteria for admission to the Ph.D. degree programme shall be as under:

- (1) Have passed 18-years education with at least CGPA 3.00/ 4.00 and at least CGPA 3.50/ 5.00 (at least 65% marks) in semester system and 1st division (60% marks) in annual system of examination.
- (2) Candidate should have no 3rd division in his/ her academic career.
- (3) The candidate must have
 - (a) passed the test equivalent to GRE/ HAT General, conducted by the university, with a passing score of 60%. OR
 - (b) passed the GRE/ HAT General or equivalent, conducted by testing bodies accredited by HEC, with a passing score of 60%.
- (4) The latest HEC Graduate Policy will be followed.

Selection Criterion

1. Admissions will be granted on open merit basis.
2. The merit for admission will be determined by the following criteria:

Academic Record	80 marks
Interview	15 marks
Publications	05 marks
Total	100 marks

Scholarships Offered

Studentship is offered in various funded research projects.

Degree Requirements

A candidate must complete minimum 18 credit hours course work in maximum four semester duration, participate in two seminars (01 credit hour each), complete 50 credit hours of



research work with at least one publication in HEC recognized journal.

Duration

The duration of the program will not be less than six semesters and more than sixteen semesters.

Scheme of Study

PhD Electrical Engineering			
Semester I			
Course	Type	Subject	Cr. Hrs.
Course-1	Compulsory	Research Methodology and Ethics	3
Course-2	Compulsory	Offered from Ph.D. courses list	3
Course-3	Compulsory	Offered from Ph.D. courses list	3
Semester II			
Course	Type	Subject	Cr. Hrs.
Course-4	Compulsory	Offered from Ph.D. courses list	3
Course-5	Compulsory	Offered from Ph.D. courses list	3
Course-6	Compulsory	Offered from Ph.D. courses list	3

Semester III-XVI			
Course code	Type	Subject	Cr. Hrs.
PEE-7997		Comprehensive Exam	0 (Pass/Fail)
PEE-7998	Compulsory	Research Seminar-I	1
PEE-7999	Compulsory	Research Seminar-II	1
PEE-8000	Compulsory	Thesis	50
<p>Note: Semester III-XVI also includes passing Comprehensive Exam (Written+Oral), Ph.D. Synopsis, Research Seminar-I, Research Seminar-II, Final Open Defense</p> <p>Note: A student shall not be enrolled for more than 12 and less than 3 credit hours of taught courses in a semester except for semester with thesis.</p>			

List of Graduate courses (M.Sc. & Ph.D.)	
COMPULSORY COURSES	
Course Code	LIST OF COURSES
PEE-7101	Research Methodology and Ethics
PEE-7997	Comprehensive Exam
PEE-7998	Research Seminar-I
PEE-7999	Research Seminar-II
PEE-8000	Postgraduate Thesis



SPECIALIZATION COURSES	
Course Code	LIST OF COURSES
PEE-7201	Control of AC & DC Machines and Drives
PEE-7202	Modeling and Simulation of Electrical Machines
PEE-7203	Industrial Power System & Design
PEE-7204	Power System Operation and Planning
PEE-7205	Advanced Power System Analysis
PEE-7206	Alternate Energy Sources
PEE-7207	Advanced Topics in Power
PEE-7208	Advanced Power System Operation and Control
PEE-7209	Smart Grids
PEE-7210	Sustainable Energy System
PEE-7211	Electric Power Quality
PEE-7212	Wind Power Generation
PEE-7213	Faults Tolerated Power System
PEE-7214	Energy Resources and Technologies
PEE-7215	Metaheuristic Optimization
PEE-7216	Energy Informatics
PEE-7217	Embedded System Design
PEE-7218	Advanced Microwave Engineering
PEE-7219	Advanced VLSI Design
PEE-7220	Advanced Microprocessor Based Systems
PEE-7221	Artificial Neural Networks
PEE-7222	Advanced Digital Signal Processing
PEE-7223	Advanced Computer Architecture
PEE-7224	Digital Image Processing
PEE-7225	Nanoelectronics

PEE-7226	Modeling and Simulation of Semiconductor Devices
PEE-7227	VLSI Testing and Verification
PEE-7228	Integrated Optical Devices & Waveguides
PEE-7229	Digital Integrated Circuit Design
PEE-7230	Analog IC Design
PEE-7231	Advanced Topics in Electronics
PEE-7232	Fiber Optics Theory and Communication
PEE-7233	Computer Vision and Machine Learning
PEE-7234	Advanced Topics in VLSI
PEE-7235	Advanced Digital System Design
PEE-7236	Advanced Topics in Electromagnetics
PEE-7237	Advanced Antenna Theory
PEE-7238	VLSI Signal Processing
PEE-7239	VLSI Interconnects
PEE-7240	Nanophotonics and Metamaterials
PEE-7241	Advanced topics in Communication Networks
PEE-7242	Advanced Optical Networks
PEE-7243	Advanced Broadband Communication
PEE-7244	Advanced Satellite Communication
PEE-7245	Advanced Multimedia Communication
PEE-7246	Advanced Topics in Internet of Things
PEE-7247	Advanced topics in Communication Networks
PEE-7248	IP Telephony and VOIP
PEE-7249	Speech and Audio Processing
PEE-7250	Cellular Radio and Personal Communication
PEE-7251	Optimization of Data Network



PEE-7252	Smart Grid Communication
PEE-7253	Advanced Topic in Telecommunication
PEE-7254	Pattern Recognition
PEE-7255	Robot Control Theory
PEE-7256	Optimal Control Systems
PEE-7257	Estimation Theory
PEE-7258	Dynamics of Robots
PEE-7259	System Dynamics
PEE-7260	Advanced Topics in Control Systems
PEE-7261	Computational Methods in Large Scale Simulations
PEE-7262	Intelligent Control

CORE COURSES	
Course Code	LIST OF COURSES
PEE-7103	Advanced Topics in Electromagnetics
PEE-7104	Probability Theory
PEE-7105	Advanced Power Electronics Devices and Converters
PEE-7106	Metaheuristic Optimization
PEE-7107	Advanced Power System Distribution
PEE-7108	Power System Reliability
PEE-7109	Energy Management
PEE-7110	Power System Restructuring
PEE-7111	Advanced Power System and Protection
PEE-7112	Insulation Coordination in Power Systems

PEE-7113	Power System Circuit Breaker & Substations
PEE-7114	Renewable Energy Sources
PEE-7115	Advanced High Voltage Engineering
PEE-7116	Power System Modeling and Analysis
PEE-7117	Advanced Power System Transmission
PEE-7118	Advanced Power System Stability and Quality
PEE-7119	Power Generation Economics
PEE-7120	Distributed Generation
PEE-7121	Advanced Power Electronics Devices and Converters
PEE-7122	Switch-Mode Power Supplies
PEE-7123	Modeling and Simulation of Convertors
PEE-7124	Special Electrical Machine
PEE-7125	Advanced Control System
PEE-7126	Advanced Design of Electrical Machine
PEE-7127	Semiconductor Processing
PEE-7128	Electromagnetic Field Analysis
PEE-7129	Stochastic Process
PEE-7130	Solid State Electronics
PEE-7131	Photonic Devices
PEE-7132	Computational EM
PEE-7133	Semiconductor Device Physics
PEE-7134	Quantum Mechanics
PEE-7135	Radiating Systems & Antennas
PEE-7136	Microwave Networks & Passive Components
PEE-7137	Advanced Computer Networks
PEE-7138	Secure Communications



PEE-7139	Microwave IC Design
PEE-7140	Real-time DSP
PEE-7141	Spatial Array Processing
PEE-7142	Filtering & Tracking
PEE-7143	Advanced Digital Communication
PEE-7144	Information Theory and Coding
PEE-7145	Advanced Wireless Communication
PEE-7146	Microwave Systems & Devices
PEE-7147	Advanced Mobile Communication
PEE-7148	Signal Detection & Estimation
PEE-7149	Adaptive Filter Theory
PEE-7150	Wireless Adhoc Networks
PEE-7151	Unmanned Aerial Vehicles, Design and Performance Analysis
PEE-7152	Advanced Communication Networks
PEE-7153	Advanced Concepts in Radar Applications
PEE-7154	Global Positioning and Navigation System
PEE-7155	Electromagnetic Field Compatibility
PEE-7156	Cryptography and Security
PEE-7157	Advanced Optical Communication
PEE-7158	Telecommunication Network Operations
PEE-7159	Advanced Digital Control Systems
PEE-7160	Fuzzy Control Systems
PEE-7161	Adaptive Control System
PEE-7162	Robust Control
PEE-7163	System Identification
PEE-7164	Linear Control System Theory

PEE-7165	Non-Linear Control System
PEE-7166	Control System Optimization
PEE-7167	Chaos Theory
PEE-7168	Random Variables and Stochastic Processes
PEE-7169	Linear Multivariable Control Theory





band of brothers spring 2019

"FROM THIS DAY TO THE ENDING OF THE WORLD, BUT WE IN IT SHALL BE REMEMBERED - WE FEW, WE HAPPY FEW, WE BAND OF BROTHERS. FOR HE TO-DAY THAT SHEDS HIS BLOOD WITH ME SHALL BE MY BROTHER, BE HE NE'ER SO VILE. THIS DAY SHALL GENTLE HIS CONDITION, AND GENTLEMEN IN ENGLAND NOW-A-BED SHALL THINK THEMSELVES ACCURSED 'TIEY WERE NOT HERE"
-- WILLIAM SHAKESPEARE



Students from Pakistan attending WCU through exchange program

WCU ADMINISTRATOR > FEBRUARY 27, 2019

The Western Carolina University community has welcomed three new international students to campus this spring semester as part of the U.S. Department of State's Global Undergraduate Exchange Program in Pakistan.



Students from Pakistan studying at WCU this semester are (from left) Soha, Usman and Minahil.

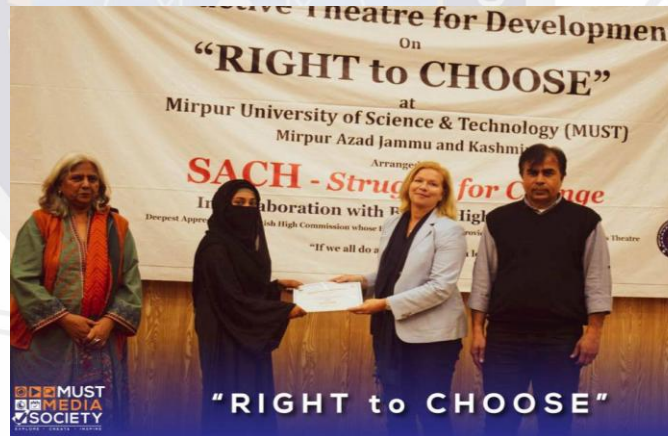
Joining the WCU community is Soha, Minahil and Usman, all studying electrical engineering. (The students' full names are not being used in accordance with U.S. Department of State policy.)



Participation in National Events and Competitions







Team SMART Agua
Winners
HULT PRIZE MUST 2021





Alumni Messages

<p>The department provides a unique and balanced environment for educational, professional and personal grooming. Our faculty embraces new propositions and help us in turning these ideas to reality. Being a student, I learned a lot about my engineering field and how to implement this knowledge in practical field. On campus accommodation, extracurricular activities, 24/7 Wi-Fi, library, symposiums & seminars, practical trainings, presentation & communication skills to enrich self-confidence makes MUST a great institution.</p>		<p>Raja Faizan Ayub Student (8th Semester) B.Sc. Electrical Engineering Session: 2017-2021</p>
<p>Words are powerless to express my gratitude to MUST. There are so many opportunities to develop ones personality in any field. The entire faculty and other staff members of the university are very cooperative. Each year many young graduates like me from this department are able to enter technical fields with prominent technical skills and utmost ethical grooming to serve their community.</p>		<p>Engr. Sheeza Mariam Nawaz SDO GEPCO WAPDA M.Sc. Electrical Engineering Session: 2019-2021</p>
<p>Advanced labs equipped with modern facilities, online resources, professional grooming, excellent environment, cooperative & highly qualified faculty makes MUST one of the best modern university of AJK and Pakistan. The Bachelor program at the department of Electrical Engineering motivated me to dive deeper in the research and thanks to the HEC HRDI-UESTP scholarship program, I am currently perusing my combined MS-PhD studies at the Department of Electrical and Computer Engineering at Sungkyunkwan University, South Korea. Currently, my research project (funded by Samsung) is mainly focused on wireless communication and networks.</p>		<p>Engr. Danish Mahmood PhD Scholar Sungkyunkwan University South Korea Session: 2011-2015</p>
<p>After graduation from the department of electrical engineering, I was greatly inclined towards applied technology. The energy crisis motivated me to apply my knowledge and provide cost effective energy solutions for the local community. This led to the start of my own business, KOMPAS SOLAR, in 2012 and to date we have the installed capacity of over 2 MW of solar energy in AJK and across Pakistan. We now run the largest solar company in AJK and have also expanded our business through e-market platform for online services.</p>		<p>Muhammad Ahmed Kamal Chief Executive Officer KOMPAS SOLAR B.Sc. Electrical Engineering</p>



DEPARTMENT OF Mechanical Engineering

Program Mission

To produce competent mechanical engineers having professional ethics effectively contributing for the betterment of society recognizing technological developments

Degree Programs Offered

B.Sc. in Mechanical Engineering
MS in Mechanical Engineering
MS in Energy Systems Engineering
Ph.D.in Mechanical Engineering





Chairperson/Incharge:

Engr. Dr. Naveed Akram

Tel: +92-5827- 960036

E-mail: chairman_me@must.edu.pk

Message from Chairperson:

It gives me immense pleasure to welcome you at the Department of Mechanical Engineering of Mirpur University of Science and Technology (MUST) Mirpur AJK. The department started its Bachelor of Science (B.Sc.) in Mechanical Engineering program in 2004 when it was a campus of the University of Azad Jammu and Kashmir, Muzaffarabad and known as Ali Ahmed Shah University College of Engineering and Technology Mirpur Azad Kashmir.

Since 2008, when it got its recognition as Mirpur University of Science and Technology (MUST), our department has grown significantly from the faculty point of view to the development of well-equipped laboratories for fulfilling the practical requirements of the students. Along with the Bachelor of Science in Mechanical Engineering program, the department offers two MS engineering programs and one Ph.D. engineering program. The two MS engineering programs include MS in Mechanical Engineering and MS in Energy Systems Engineering whereas the title of the Ph.D. program is Ph.D. in Mechanical Engineering.

We have highly qualified faculty including foreign qualified PhDs. We are committed to providing quality education and grooming the students to develop strong leadership qualities along with

other professional skills to meet the challenging requirements of this modern world and to be a successful member of society. Research and development (R & D) has been one of our priorities and our students are doing several projects funded by Higher Education Commission (HEC) of Pakistan.

I am very much delighted to let you know that our B.Sc. Mechanical Engineering Program has now been accredited by Pakistan Engineering Council (PEC) under the Washington Accord Outcome-Based Education (OBE) system thus earning recognition and acceptance of its engineering degrees worldwide. Opportunities for our undergraduate and graduate students are virtually unlimited. In addition to our rigorous and challenging academic curriculum, our undergraduates are very active in extracurricular activities and national competitions, which are often coordinated by the various student organizations and clubs.



Faculty members of Mechanical Engineering



Faculty Members

Engr. Dr. Naveed Akram

Designation: Assistant Prof./In-charge

Qualification: PhD

Area of Interest: Heat Transfer & Fluid Mechanics

Engr. Dr. Khuram Pervez

Designation: Associate Prof.

Qualification: PhD

Area of Interest: Heat Transfer & Sustainable Energy System

Engr. Dr. Ghulam Qadir Ch.

Designation: Assistant Prof.

Qualification: PhD

Area of Interest: HVAC

Engr. Syed Kashif Hussain Shah

Designation: Assistant Prof.

Qualification: PhD (Cont'd)

Area of Interest: Thermal Systems

Engr. Noman Bashir

Designation: Lecturer

Qualification: PhD (Cont'd)

Area of Interest: Engineering Materials

Engr. Asad Ijaz

Designation: Lecturer

Qualification: PhD (Cont'd)

Area of Interest: CFD, Fluid-Structure Interaction, Flow-Induced Vibrations, Heat Transfer

Engr. Dr. Muhammad Yamin Younis

Designation: Assistant Prof.

Qualification: PhD

Area of Interest: Fluid Mechanics

Engr. Muhammad Imdad Hussain

Designation: Assistant Prof.

Qualification: PhD (Cont'd)

Area of Interest: Mechanical Engineering

Engr. Dr. Muhammad Anser Bashir

Designation: Assistant Prof.

Qualification: PhD

Area of Interest: Concentrated Solar-thermal Systems

Engr. Faraz Ikram

Designation: Assistant Prof.

Qualification: PhD (Cont'd)

Area of Interest: Experimental Fluid Mechanics

Engr. Ambreen Tajammal

Designation: Lecturer

Qualification: PhD (Cont'd)

Area of Interest: Mechanical Engineering

Engr. Kamran Afzal

Designation: Lecturer

Qualification: PhD (Cont'd)

Area of Interest: Computational Fluid Dynamics



Engr. Dr. M. Amar

Designation: Lecturer

Qualification: PhD

Area of Interest: Mechanical Engineering

Engr. Dr. Asad Munir

Designation: Lecturer

Qualification: PhD

Area of Interest: Functional Materials, Biomechanics

Engr. Dr. Zeeshan Anjum

Designation: Lecturer

Qualification: PhD

Area of Interest: Applied Mechanics Design

Engr. M. Abid

Designation: Jr. Lecturer

Qualification: M.S

Area of Interest: Thermal Systems

Lab Engineers

Engr. Muhammad Tahir Amin

Designation: Lab Engineer

Qualification: M.S

Area of interest: Thermal Systems

Engr. Muhammad Sajid Khan

Designation: Lab Engineer

Qualification: PhD (Cont'd)

Area of interest: Thermal Systems

Engr. Nasir Iqbal

Designation: Lecturer

Qualification: PhD (Cont'd)

Area of Interest: Mechanical Engineering

Engr. Haroon Mushtaq

Designation: Lecturer

Qualification: PhD (Cont'd)

Area of Interest: Manufacturing Design

Engr. Muhammad Azad

Designation: Jr. Lecturer

Qualification: M.S

Area of Interest: Computational Fluid Dynamics

Engr. Muhammad Asif Awan

Designation: Jr. Lecturer/Lab Engineer

Qualification: M.S

Area of Interest: Thermal Systems/Energy Systems

Engr. Faisal Maqbool

Designation: Lab Engineer

Qualification: M.S

Area of interest: Thermal Systems

Engr. Hafiz Sohaib Muhammad

Designation: Lab Engineer

Qualification: M.S

Area of interest: Thermal Systems



B.Sc. Mechanical Engineering

Mechanical Engineering is a highly versatile and diversified engineering discipline. On the one hand it is concerned with the design of machines and equipment that use energy and convert it into useful work. On the other hand it deals with the design and development of those machines that are used for manufacturing, production and process equipment. The department offers four years degree program leading to B.Sc. in Mechanical Engineering, securing suitable positions. The department is equipped with state-of-the-art laboratories. These labs are always accessible by both students and the faculty, and they are also linked through the state-of-the-art network environment.

Program Educational Objectives (PEOs)

- **PEO 1:** The graduates exhibiting engineering skills towards a successful career.
- **PEO 2:** The graduates adapting to provide viable engineering solutions to uplift the society and environment.
- **PEO 3:** The graduates demonstrating professional ethics and knowledge progression individually and in a team.

Mapping of PEOs with VISION and MISSION

Program Education Objectives	MUST MIRPUR		Program Mission
	Vision	Mission	
PEO 1	Superior Teaching	Knowledge & leadership	Competency
PEO 2	Impact on Society	Growth of Students	Contribution towards Society
PEO 3	Knowledge Corridor	Technological Advancement	Professional Ethics

Program Learning Outcomes (PLOs)

PLO-1 Engineering Knowledge: Apply knowledge of mathematics, natural science, engineering fundamentals and Engineering specialization to the solution of complex engineering problems.

PLO-2 Problem Analysis: Identify, formulate, conduct research literature, and analyze complex Engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

PLO-3 Design/Development of Solutions: An ability to design solutions for complex engineering problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

PLO-4 Investigation: Conduct investigation of complex Engineering problems using research-based knowledge and research methods, including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions.

PLO-5 Tool Usage: Create, select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling, to complex Engineering problems, with an understanding of the limitations.

PLO-6 The Engineer and the World: Analyze and evaluate sustainable development impacts to society, the economy, sustainability, health and safety, legal frameworks, and the environment while solving complex engineering problems.

PLO-7 Ethics: Apply ethical principles and commit to professional ethics and norms of engineering practice and adhere to relevant



national and international laws. Demonstrate an understanding of the need for diversity and inclusion.

PLO-8 Individual and Collaborative Team Work: Function effectively as an individual, and as a member or leader in diverse and inclusive teams and in multi-disciplinary, face-to-face, remote and distributed settings.

PLO-9 Communication: Communicate effectively and inclusively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, and make effective presentations, taking into account cultural, language, and learning differences.

PLO-10 Project Management and Finance: Demonstrate knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, to manage projects in multidisciplinary environments.

PLO-11 Lifelong Learning: Recognize the need for and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change.

MAPPING of PEOs with PLOs

Sr. No.	PLOs	PEO1	PEO2	PEO3
1	Engineering Knowledge	✓		
2	Problem Analysis	✓		
3	Design/Development of Solutions		✓	

4	Investigation	✓		
5	Modern Tool Usage		✓	
6	The Engineer and Society		✓	
7	Ethics			✓
8	Individual and Team Work			✓
9	Communication			✓
10	Project Management			✓
11	Lifelong Learning			✓

Scholarships Offered:

- | | |
|---|---|
| 1. University Merit Scholarship Scheme | 9. National Bank Scholarship |
| 2. MUST-Need Based Scholarship Program | 10. Institutions of Engineers Pakistan (Saudi Arabian Center) |
| 3. HBL Foundation Stipend Scheme (HBLFSS) | 11. AJ&K Council Scholarship Scheme |
| 4. HEC-Need Based Scholarship Programmed | 12. AJ&K State Talent Scholarship Scheme |
| 5. Provincial Government Scholarship | 13. Punjab Educational Endowment fund (PEEF) |
| 6. Benevolent fund scholarships | 14. USAID Scholarship |
| 7. Pakistan Engineering Congress | 15. Fauji Foundation |
| 8. Banking Council Scholarship | 16. Diya Pakistan |
| | 17. ASHAI Educational Trust |

Duration

8-14 Semesters

Admission Criterion:



Admissions are made according to the eligibility conditions approved by the Academic Council/Syndicate of the University. The admission requirements are as under:

- i. B.Sc.(Pre-Engineering) with at least 60% marks.
 - ii. Entry test - prescribed and conducted by the University.
- 3-year post-matric Diploma or Associate engineer (DAE) in relevant field with minimum 60% marks (Only against Reserved seats for DAEs)

Semester 1

Course Code	Title	Th (Cr. Hrs)	Lab. (Cr. Hrs)	Pre-req.*
GSM-1101	Calculus & Analytical Geometry	3	0	None
GSM-1102	Applied Physics	1	0	None
GSM-1102L	Applied Physics	0	1	
GSM-1103	Applied Chemistry	2	0	None
HSM-1104	Functional English	2	0	None
CSM-1105	Computer System & Programming	2	0	None
CSM-1105L	Computer System & Programming	0	1	
BME-1106	Engineering Drawing & Graphics	1	0	None

BME-1106L	Engineering Drawing & Graphics	0	1	
BME-1107	Engineering Mechanics-I	3	0	None
HSM-1108	Introduction to Chinese Language	0	0	None
	Total	14	3	
	Cumulative Total	14	3	

Semester 2

Course Code	Title	Th (Cr. Hrs)	Lab. (Cr. Hrs)	Pre-req.*
BME-1201L	Computer Aided Drawing	0	1	None
BME-1202	Engineering Materials	3	0	None
GSM-1203	Linear Algebra & Ordinary Differential Equations	3	0	None
BME-1204	Engineering Mechanics-II	3	0	None
BME-1204L	Engineering Mechanics-II	0	1	
BME-1205L	Workshop Practice	0	2	None



ISM-1206	Arabic	2	0	None
BME-1207	Thermodynamics-I	3	0	None
	Total	14	4	
	Cumulative Total	28	7	
Semester 3				
Course Code	Title	Th (Cr. Hrs)	Lab. (Cr. Hrs)	Pre-req.*
HSM-2301	Communication Skills	1	0	None
BME-2302	Mechanics of Materials-I	3	0	None
ISM-2303	Pakistan Studies	2	0	None
BME-2304	Thermodynamics-II	3	0	BME-1207
BME-2304L	Thermodynamics-II	0	1	
BEE-2305	Electrical Engineering	2	0	None
BEE-2305L	Electrical Engineering	0	1	
GSM-2306	Complex Variables and Transforms	3	0	None
	Total	14	2	
	Cumulative Total	42	9	
Semester 4				
Course Code	Title	Th (Cr. Hrs)	Lab. (Cr. Hrs)	Pre-req.*

BEE-2401	Electronics Engineering	2	0	None
BEE-2401L	Electronics Engineering	0	1	
GSM-2402	Numerical Analysis	2	0	None
GSM-2402L	Numerical Analysis	0	1	
ISM-2403	Islamic Studies/Ethics	2	0	None
BME-2404	Mechanics of Materials-II	3	0	None
BME-2404L	Mechanics of Materials-II	0	1	
BME-2405	Machine Design-I	3	0	None
BME-2406	Fluid Mechanics-I	3	0	None
	Total	15	3	
	Cumulative Total	57	12	
Semester 5				
Course Code	Title	Th (Cr. Hrs)	Lab. (Cr. Hrs)	Pre-req.*
BME-3501	Fluid Mechanics-II	3	0	BME-2406
BME-3501L	Fluid Mechanics-II	0	1	
HSM-3502	Health, Safety & Environment	1	0	None
BME-3503	Machine Design-II	2	0	BME-2405
GSM-3504	Applied Statistics	3	0	None



BME-3505	Heat & Mass Transfer	3	0	None
BME-3505L	Heat & Mass Transfer	0	1	
BME-3506	Control Engineering	3	0	None
BME-3506L	Control Engineering	0	1	None
Total		15	3	
Cumulative Total		72	15	
Semester 6				
Course Code	Title	Th (Cr. Hrs)	Lab. (Cr. Hrs)	Pre-req.*
HSM-3601	Technical Report Writing & Presentation Skills	1	0	None
HSM-3601L	Technical Report Writing & Presentation Skills	0	1	
BME-3602	Technical Elective-I	2	0	None
BME-3603	Manufacturing Processes	3	0	None
BME-3603L	Manufacturing Processes	0	1	
BME-3604	Mechanics of Machines	3	0	None

BME-3605	Heating, Ventilation and Air Conditioning	3	0	None
BME-3605L	Heating, Ventilation and Air Conditioning	0	1	
BME-3606	Internship/ Industrial Experience	0	0	None
BME-3607	Instrumentation, Measurement and Quality Control	2	0	None
BME-3607L	Instrumentation, Measurement and Quality Control	0	1	
Total		14	4	
Cumulative Total		86	19	
Semester 7				
Course Code	Title	Th (Cr. Hrs)	Lab. Credit Hours	Pre-req.*
MSM-4701	Engineering Economics	2	0	None
BME-4702	Mechanical Vibrations	3	0	None
BME-4702L	Mechanical Vibrations	0	1	



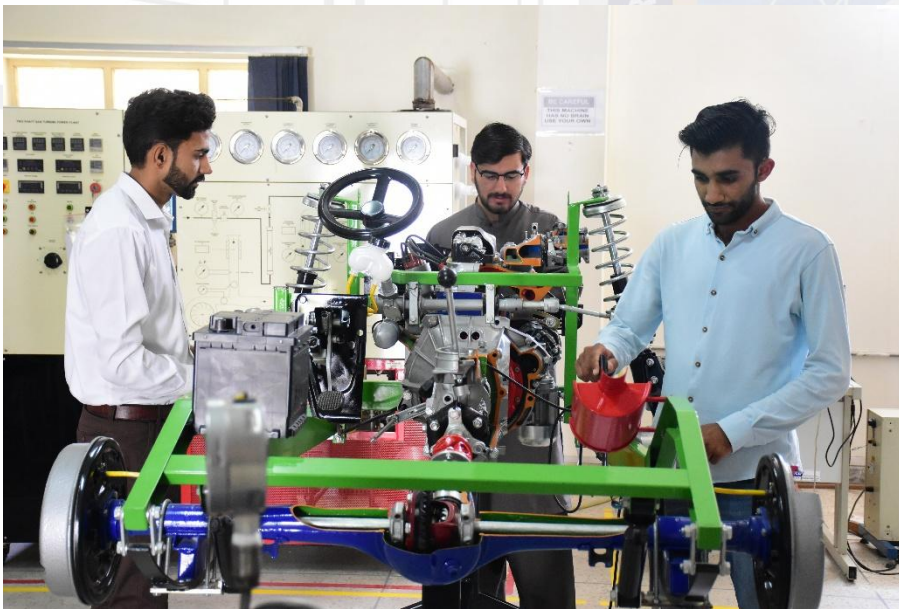
BME-4703	Internal Combustion Engines	3	0	None
BME-4704	Introduction to Finite Element Analysis	2	0	None
BME-4704L	Introduction to Finite Element Analysis	0	1	
BME-4705	Final Year Project-I	0	3	None
	Total	10	5	
	Cumulative Total	96	24	
Semester 8				
Course Code	Title	Th (Cr. Hrs)	Lab. (Cr. Hrs)	Pre-req.*
BME-4801	Technical Elective-II	2	0	
BME-4802	Technical Elective-III	2	0	None
MSM-4803	Entrepreneurship	2	0	None
MSM-4804	Management Elective	2	0	None
BME-4805L	Power Plants	3	0	None
BME-4805L	Power Plants	0	1	
BME-4806L	Final Year Project-II	0	3	None
	Total	11	4	
	Cumulative Total	107	28	

Non Engineering Courses Credit Hours	37		27.41
Engineering Courses Credit Hours	98		72.59

Laboratories

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

- Applied Thermodynamics
- Mechanics of Materials
- Refrigeration & Air Conditioning
- Fluid Mechanics and Hydraulics
- Heat and Mass Transfer
- Mechanics of Machines
- Internal combustion Engines
- Engineering Materials
- Workshop Practices & Manufacturing Process
- Engineering Mechanics (Static & Dynamics)
- Drawing Hall
- Mechanical Vibrations





Departmental Focal Persons



Focal Person (Post Graduate Studies)
Engr. Dr. M. Anser Bashir
Assistant Professor
Email:Anser.Me@Must.Edu.
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Industry Liaison Officer (Ilo)
Engr. M. Imdad Hussain
Assistant Professor
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Focal Person (Scholarships)
Engr. Nasir Iqbal
Lecturer
Email:Engr.Norani.Me@Must.Edu.
Pk
Cell# +923465054582



Focal Person
(QEC/Departmental Library)
Engr. Kamran Afzal
Lecturer
Email:Kamran.Afzal@Must.Edu.
Pk
Cell# +923127646310

Students' Messages

It's Haya Iqbal here and being a mechanical engineering student, my experience in the department has been both challenging and rewarding. One of the most important things I've learned is the value of critical thinking and problem-solving. From designing mechanical systems to analyzing the efficiency of energy systems, each course has pushed me to think creatively and approach problems from multiple angles.

Through lab sessions and hands-on projects, I have gained practical experience in applying theoretical concepts. For instance, working with CAD software has taught me the intricacies of designing mechanical components, while projects on thermodynamics and fluid mechanics have given me insight into how heat and energy transfer occur in various systems.

My department has also emphasized the importance of collaboration. Many of my courses involve group projects where teamwork is essential. This has not only helped me improve my technical skills but has also developed my communication and leadership abilities.

Additionally, the supportive faculty and access to advanced lab equipment have allowed me to explore areas like manufacturing processes, materials science, and sustainable engineering. These experiences have deepened my understanding of how mechanical engineering plays a crucial role in solving real-world problems, particularly in the areas of renewable energy and advanced manufacturing techniques.

Studying Mechanical Engineering has been a transformative experience for me. I've gained a deep understanding of core engineering principles while developing practical skills through hands-on labs and real-world projects. The faculty has been instrumental in my growth, offering not only academic expertise but also mentorship that focuses on professional and personal development.

Being a part of ASME and ASHRAE has been invaluable, providing me with guidance on navigating my future career and exploring areas of interest. The strong connection between seniors and juniors has also helped me gain insight into the industry and make informed decisions about my path forward.

Overall, my time here has been filled with learning, collaboration, and opportunities that have shaped me into a well-rounded mechanical engineer, ready to face future challenges with confidence.



Name :Haya Iqbal
Semester: 7th
Session: 2021-25



Talha bin Khalid
Session 21 25
Semester 7th



MS Mechanical Engineering

• Qualification

B.Sc. Mechanical Engineering with at least 65% marks in semester system and 50% in annual system of examination with no 3rd Division in the academic record.

- Registered with Pakistan Engineering Council.
- GAT (General) at least qualifying score
- Entry Test Conducted by the University

• Grades

- Semester Based Examination
 - CGPA 2.5 out of 4.0
- Annual System
 - Min Second Division
- No 3rd division is allowed.
- GAT / NTS general valid test.
- HEC attested degrees where applicable

Duration:

• Full Time

- Minimum Semesters = 4
- Maximum Semester = 8
- Credit Hours = 30
- Semester Duration = 18 Weeks
- 16 Weeks of Teaching
- 2 Week Examination

Degree Requirements:

- Four (4) courses (12 credit hours) from the core courses

AND

- Four (4) courses of 12 credit hours' graduate elective courses of which two graduate courses may be taken from other areas.

AND

- Satisfactory defence of MS-Mechanical Engineering thesis consisting of 6 credit hours according to the University prescribed format.

Proposed Scheme of Study (MS- Mechanical Engineering)

Duration	4 Semesters
Core Courses	12 Credit Hours
Elective Courses	12 Credit Hours
Master's Thesis	6 Credit Hours
Total	30 Credit Hours

MS-Core Subjects

Course Code	Subject	Credit Hours
MME-7101	Advanced Numerical Analysis	3
MME-7102	Research Methodology	3
MME-7103	Advanced Finite Element Methods	3
MTP-7104	Advanced Fluid Mechanics	3
MTP-7105	Advanced Heat Transfer	3

MS-Compulsory Subjects

MME-7100	Thesis	6
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MS-Elective Subjects		
Course Code	Subject	Credit Hours
MTP-7201	Renewable Energy Systems	3
MTP-7202	Advanced Power Plant Systems	3
MTP-7203	Design of Experiments	3
MTP-7204	Thermal Design of Heat Exchanger	3
MTP-7205	Solar Thermal Systems	3
MTP-7206	Computational Fluid Dynamics	3
MTP-7207	Advance Aerodynamics	3
MTP-7208	Project Management	3
MTP-7209	Supply Chain in Engineering	3
MTP-7210	Design Optimization and Analysis Techniques	3
MTP-7211	Air Pollution	3
MTP-7212	Convection Heat Transfer	3
MTP-7213	Advanced IC. Engines	3
MTP-7214	Boiling & Condensation Heat Transfer	3
MTP-7215	Advanced Manufacturing Processes	3
MTP-7216	Fluid Structure Interaction	3
MTP-7217	Special Topic on Thermal Power Engineering	3
MTP-7218	Advance Refrigeration and Air Conditioning	3
MTP-7219	Advance Applied Mechanics and Design	3
MTP-7220	Advance Mechanical Vibration	3

MTP-7221	Energy System Analysis	3
MTP-7222	Advanced Thermodynamics	3
MTP-7223	Industrial and Manufacturing Entrepreneurship	3
MTP-7224	Stochastic Modeling and Optimization	3
MTP-7225	Advanced Computer Aided Design	3

MS in Energy Systems Engineering:

Admission Criteria
B.Sc. Mechanical, Electrical, Civil, Environmental or Chemical Engineering with at least 65% marks in semester system and 50% in annual system of examination with no 3rd Division in the academic record.
<ul style="list-style-type: none"> Registered with Pakistan Engineering Council. GAT (General) at least qualifying score.
Entry Test Conducted by the University

Scheme of Study (MS-Energy Systems Engineering)

MS-Core Subjects		
Course Code	Subject	Credit Hours
MME-7101	Advanced Numerical Analysis	3
MME-7102	Research Methodology	3
MME-7103	Energy System Analysis	3
MES-7104	Energy Forecasting and Statistics	3
MES-7105	Energy Economics & Policy	3



MES-7106	Energy Conversion Technologies	3
MS-Compulsory Subjects		
MME-7100	Thesis	6
MS-Elective Subjects		
MES-7201	Renewable Energy Systems	3
MES-7202	Advanced Power Plant Systems	3
MES-7203	Design of Experiments	3
MES-7204	Thermal Design of Heat Exchanger	3
MES-7205	Solar Thermal Systems	3
MES-7206	Computational Fluid Dynamics	3
MES-7207	Advance Aerodynamics	3
MES-7208	Advanced Finite Element Methods	3
MES-7209	Project Management	3
MES-7210	Supply Chain in Engineering	3
MES-7211	Design Optimization and Analysis Techniques	3
MES-7212	Air Pollution	3
MES-7213	Computer Applications in Energy Systems	3
MES-7214	Wind Energy	3
MES-7215	Fuel Cells Technology	3
MES-7216	Clean Coal Technologies	3

Ph.D. in Mechanical Engineering:

Regulations for Ph.D. Degree programmes

Scheme of studies

The scheme of studies for Ph.D. degree programme shall be as under:

- (1) Total credit hours for the degree program shall be seventy. A minimum of 18 credit hours course work is required in maximum four semester duration. The deficiency courses, if any, will be extra than the required 18 credit hours.
- (2) Two Seminars, one credit hour each (02 credit hours).
- (3) Synopsis to be submitted at the end of third semester.
- (4) Comprehensive examination (Written + Oral).
- (5) Thesis defense at Department/ Institute/ Centre/ School/ College level on a topic approved by the Advanced Studies & Research Board (50 credit hours).
- (6) A Ph.D. scholar is required to publish at least one research paper from his/ her Ph.D. research work in the HEC recognized journal before the award of the degree.
- (7) Evaluation of thesis by two foreign external examiners from technologically advanced countries and one local external examiner.
- (8) Open Public Defense.

Duration of Scheme

The duration of the course for the degree of Ph.D. shall not be less than six semesters and more than sixteen semesters for whole time scholar. Extension in duration may be granted by the ASRB on recommendation of the supervisor. The letter by the supervisor countersigned by the concerned Head and Dean of the Faculty will be required for extension to the next semester(s), if required. The letter will be sent to the ASRB for necessary action.

Calendar Year

Normal Semester: 18 working weeks.



Teaching: 16 weeks.

Examination and Result: 02 weeks.

Spring Semester: 2nd Week of February to 2nd Week of June.

Fall Semester: 2nd Week of September to 2nd Week of January.

Semester Break: Last Week of January to First Week of February.

Admission Procedure

- (1) Applications for admission to Ph.D. degree programme shall be invited through advertisement in the electronic and print media. Director Students Affairs (DSA) will coordinate with the Departments/ Institutes/ Centres/ Schools/ Colleges for the advertisement well in advance.
- (2) The candidate shall submit his/ her application on prescribed Admission Form to the relevant admission office/ DSA office of the University within the prescribed time limit.
- (3) The departmental admission committee will grant admissions subject to the approval by the ASRB. The Departments/ Institutes/ Centres/ Schools/ Colleges will forward the cases to the ASRB before the start of sessional examination of the first semester. The ASRB will complete the admission process before the start of terminal examination of the first semester.
- (4) Number of scholars, to be enrolled shall be determined by the Departments/ Institutes/ Centres/ Schools/ Colleges, depending upon the availability of faculty.

Admission Requirements

The eligibility criteria for admission to the Ph.D. degree programme shall be as under:

- (1) Have passed MS, M.Phil. And M.Sc. (Engineering) or equivalent 18-years education with at least CGPA 3.00/ 4.00 and at least

CGPA 3.50/ 5.00 (at least 65% marks) in semester system and 1st division (60% marks) in annual system of examination.

- (2) Candidate should have no 3rd division in his/ her academic career provided that in case of the teachers at the University/ Degree Colleges engaged in postgraduate teaching and employees of the research organizations engaged in research, the Vice Chancellor may relax the condition of 3rd division in Matriculation or F.A./ F.Sc. examinations on compassionate grounds.
- (3) The candidate must have passed the GRE subject test or equivalent as per HEC/ University requirements.
 - a. In the case of Graduate Assessment Test (GAT) (<http://www.nts.org.pk/gat/gatsubject.asp>) a minimum of 60% score is required.
 - b. In the case of GRE subject test, a minimum of 60% (for admissions thereafter) percentile score is required.
 - c. If the test is not available in NTS subject, then a university committee consisting of at least 3 Ph.D. faculty members in the subject area, approved by the HEC will conduct the Test at par with GRE Subject Test and qualifying score for this test will be 70%.
- (4) Admissions will be granted on open merit basis. However, foreign candidate shall be selected through the Federal Ministry of Education, Government of Pakistan.
- (5) The candidate has to produce a certificate from the Medical Officer of any public sector hospital to the effect that he/ she is free of any communicable disease or mental or physical disability which is likely to stand in the way of his/ her pursuit of higher studies and research.



- (6) The candidate must have good moral character. All those candidates, who were punished by any Degree Awarding Institutions (DAI's) for acts of indiscipline and other undesirable activities and were awarded major penalties, shall not be admitted to postgraduate studies in the University under any circumstances. All other candidates, who were awarded minor penalties for more than once shall also not be admitted to the postgraduate studies in the University.
- (7) All the employees of public sector organizations have to produce the certificate of study leave/ NOC to pursue the studies as a regular scholar from their respective head office.
- (8) The employee(s) of the University appointed on permanent/ ad hoc/ contract basis shall be allowed to join the programme as whole-time regular scholar(s) without obtaining leave of absence. Such employees shall have to produce a certificate from the Head of Department concerned so that the normal teaching work of the employee will not be affected.

Scheme of Study PhD Mechanical Engineering

OPTION-1				
Semester I				
Course Code	Type	Core/ Elective	Subject	Credit Hours
Subject I	Compulsory	Core	Offered from Ph.D. courses list	3
Subject II	Compulsory	Core	Offered from Ph.D. courses list	3

Subject III	Compulsory	Elective	Offered from Ph.D. courses list	3
Semester II				
Course Code	Type		Subject	Credit Hours
Subject IV	Compulsory	Core	Offered from Ph.D. courses list	3
Subject V	Compulsory	Elective	Offered from Ph.D. courses list	3
Subject VI	Compulsory	Elective	Offered from Ph.D. courses list	3
OPTION-2				
Semester I				
Course Code	Type	Core/ Elective	Subject	Credit Hours
Subject I	Compulsory	Core	Offered from Ph.D. courses list	3
Subject II	Compulsory	Elective	Offered from Ph.D. courses list	3



Semester III-XVI				
Course Code	Type	Subject	Credit Hours	
EE-80000	Compulsory	Comprehensive Exam	0 (Pass/Fail)	
EE-81000	Compulsory	Research Seminar	2	
EE-83000	Compulsory	Thesis	50	
Note: Semester III-XVI also includes passing Comprehensive Exam (Written Oral), Ph.D. Research Proposal, Final Open Defense				
Semester II				
Course Code	Type	Core/ Elective	Subject	Credit Hours
Subject III	Compulsory	Core	Offered from Ph.D. courses list	3
Subject IV	Compulsory	Elective	Offered from Ph.D. courses list	3
Semester III				
Course Code	Type	Core/ Elective	Subject	Credit Hours
Subject V	Compulsory	Core	Offered from Ph.D. courses list	3

Subject VI	Compulsory	Elective	Offered from Ph.D. courses list	3
Semester IV-XVI				
Course Code	Type	Subject	Credit Hours	
EE-80000	Compulsory	Comprehensive Exam	0 (Pass/Fail)	
EE-81000	Compulsory	Research Seminar	2	
EE-83000	Compulsory	Thesis	50	

Note: Semester IV-XVI also includes passing Comprehensive Exam (Written Oral), Ph.D. Research Proposal, Final Open Defense

Total credit hours for the degree program = 70	PhD Dissertation credit hours = 50
Minimum credit hours course work required in maximum four semester duration = 18	Synopsis to be submitted at the end of third semester
Two Seminars, one credit hour each (02 credit hours)	Comprehensive examination (Written +Oral)
Total credit hours for the degree program = 70	PhD Dissertation credit hours = 50
Minimum credit hours course work required in maximum four semester duration = 18	Synopsis to be submitted at the end of third semester
Two Seminars, one credit hour each (02 credit hours)	Comprehensive examination (Written +Oral)



Alumni Messages

Glory upon Allah, who hath guided me across the stormy seas with nary a scratch. Dr. Aamer Nazir works as Assistant Professor in Department of Mechanical Engineering and High-Speed 3D Printing Research Center at National Taiwan University of Science and Technology (NTUST) which is ranked No. 1 Technology University in Taiwan and also known as Taiwan Tech. He works on one of the rapidly growing research area of Design for Direct Digital Manufacturing which is crucial for revolutionary Forth Industrial Revolution. Dr. Aamer would like to extend his profound gratitude towards MED MUST where he completed his bachelor’s degree with a Gold Medal. He thanks all faculty for their excellent insights, advice, unwavering patience, and never ending kindness. His journey of excellence in research and academics would not have been possible without the involvement, support, and encouragement of MED MUST at the start of his career. His today might be very different if MUST chapter of his life is neglected. Thank you MED MUST and all respectable teachers.



Dr. Aamer Nazir
Assistant Professor
Department of Mechanical Engineering
NTUST

An entrepreneur and certified trainer, Mudassar is a sound professional. After completing his bachelor’s in mechanical engineering from MUST in 2014, he instantly got employed at Volvo. During his tenure, he took strategic initiatives for development and remained instrumental in embedding Volvo ways of working across the value chain. In 2017, he started his own firm while completing his Business Education. His engaging leadership and strong business acumen helped Realtech Engineering deliver sustainable business growth even during pressing times. Mudassir is currently on his journey to develop future leaders in Pakistan through his traineeship program. He holds strong understanding of his work and for it, he credits his institutions MUST AJ&K. Mudassir cherishes his time at MUST as it opened many opportunities for him, and he made some lifelong friends.



Mudassar Ghafoor
Session 2010-14
CEO-Realtech
Engineering
Services

It was a golden era of my life at the Department of Mechanical Engineering, MUST during my bachelor study. Department of Mechanical Engineering has always supported its students to achieve their potential. It helped me in gaining the relevant professional knowledge and improving my soft skills through which I was able to secure my job. I am thankful to all the faculty members of the Department for their continuous efforts and support. Apart from excellent academic experience, I also gained the benefits of being a part of Cultural Student body. I cherish every moment spent at MUST.



Muhammad Tayyab
Session 2011-15
Shift Control Engineer
(HUBCO)





DEPARTMENT OF Software Engineering

Vision

To create a conducive environment for quality academic and research-oriented education in software engineering to prepare the students to meet future challenges; innovate and create novel solutions for the nation and society

Degree Programs Offered

B.Sc. Software Engineering
MS Software Engineering
PhD in Software Engineering





Chairperson:

Engr. Dr. Nouman Ali

Tel: +92-5827-961016

E-mail: chairman.se@must.edu.pk

Message from Chairperson:

Software Engineering is the most flourishing department at Mirpur University of Science and Technology. The department aspires to provide students with the in-demand skills of the industry, so that they can excel in their professions. The department is committed to achieve excellence in teaching and inculcating confidence in students. The principle goal is to engage students in the latest technologies and skills by exposing them to committed faculty and well-equipped labs. Our motivation is to nurture their technical and leadership skills. The Department of Software Engineering is offering the MS program from Fall 2019 which will enhance the research and development capacity of the university.



Faculty Members of Software Engineering Faculty Members



Engr. Dr. Nouman Ali

Designation: Associate Professor

Qualification: PhD

Area of interest: Image Processing

E-mail: nouman.se@must.edu.pk

Engr. Dr. Sohaib Manzoor

Designation: Lecturer

Qualification: Ph.D.

Area of interest: Electronic, Information and Communications Engineering

Dr. Tehmina Shehryar

Designation: Lecturer

Qualification: PhD

Area of interest: Image Processing

E-mail: tehmina.se@must.edu.pk

Engr. Asim Javaid

Designation: Lecturer

Qualification: PhD (Cont'd)

Area of interest: Cyber Security

E-mail: asim.se@must.edu.pk

Dr. Anum Tariq

Designation: Lecturer

Qualification: PhD

Area of interest: Requirement Engineering

E-mail: anum.se@must.edu.pk

Engr. Saba Zafar

Designation: Lecturer

Engr. Dr. Tasleem Kausar

Designation: Assistant Professor

Qualification: PhD

Area of interest: Bio-Medical Engineering

E-mail: tasleem.ee@must.edu.pk

Engr. Dr. Shamila Nasreen

Designation: Assistant Professor

Qualification: PhD

Area of interest: Natural Language Processing

E-mail: shamila.se@must.edu.pk

Engr. Areeb Ahmed Mir

Designation: Lecturer

Qualification: MS

Area of interest: Software Engineering

E-mail: areeb.se@must.edu.pk

Engr. Samiullah Khan

Designation: Lecturer

Qualification: MS

Area of interest: Software Engineering

E-mail: samiullah.se@must.edu.pk

Engr. Aqsa Rasheed

Designation: Lecturer

Qualification: MS

Area of interest: Digital Image Processing

E-mail: aqsa.se@must.edu.pk

Engr. Saman Fatima

Designation: Jr. Lecturer/ Lab Engineer



Qualification: MS
Area of interest: Software Engineering
E-mail: saba.se@must.edu.pk

Engr. Abdul Qadir

Designation: Lecturer
Qualification: MS
Area of interest: Software Quality Engineering & Machine Learning
E-mail: abdulqadir.se@must.edu.pk

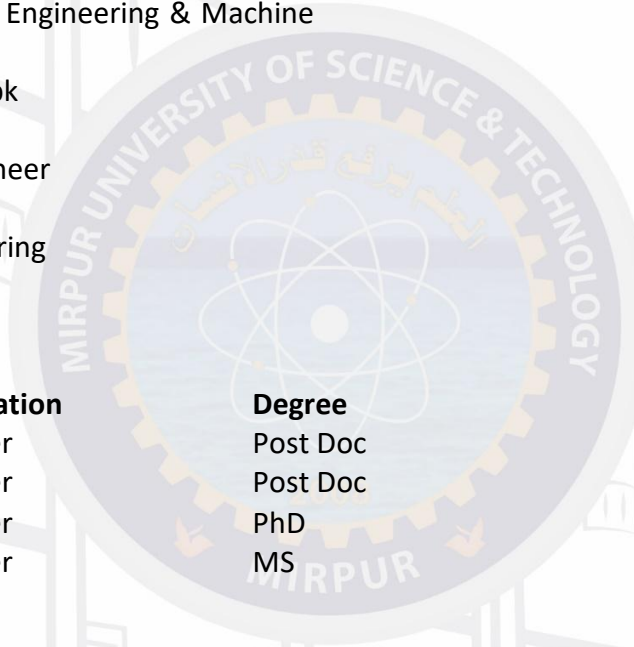
Engr. Sehrish Manzoor

Designation: Jr. Lecturer/ Lab Engineer
Qualification: MS
Area of interest: Software Engineering
E-mail: sehrish.se@must.edu.pk

Faculty on Leave

Name	Designation
Dr. Tehmina Shehryar	Lecturer
Engr. Dr. Sohaib Manzoor	Lecturer
Engr. Raees Ahmed	Lecturer
Engr. Samina Fazilat	Lecturer

Qualification: MS
Area of interest: Machine Learning
E-mail: samanfatima.se@must.edu.pk



Country
USA
USA
Pakistan



B.Sc. Software Engineering

The Department of Software Engineering has been actively engaged in disseminating software engineering education for the since 2006. The department of Software Engineering at MUST takes pride in being one of the highest-ranking departments of the university. We aim to impart quality education to prepare the students with the latest emerging fields in the subject of software engineering.

The Department is committed to produce young entrepreneur for career in Software Project management and Software development and integration. The Software Engineering department covers wide domains such as software development, data bases, Computer Graphics, Networking and web developing etc. Their foundation is such that they can be life-long learners due to the department’s strong emphasis on promoting research in the emerging fields such as artificial intelligence, robotics, machine learning, big data etc. at both undergraduate and graduate level. Our graduates are well perceived and sought after by the industry where they have been successful in securing suitable positions. The department is equipped with state-of-the-art laboratories. These labs are always accessible by both students and the faculty, and they are also linked through the state-of-the-art network environment.

Program Mission

To provide a comprehensive and transformative education in software engineering with innovation and critical thinking by preparing proficient and adaptable professionals who can foster

social and ethical responsibilities through evolving technologies for software solutions.

Program Educational Objectives (PEOs)

PEO-1: Attain a high level of software engineering expertise, through investigation and problem-solving skills by applying cutting-edge technologies in both industry and academia

PEO-2: Communicate and collaborate effectively in teams on different roles for design & development of software solutions.

PEO-3: Develop a commitment towards leadership, ethics, environmental concerns, societal impact and adaptation of evolving technologies in software engineering practices.

Mapping of PEOs to PLOs

Program Mission	PEO-1	PEO-2	PEO-3
To provide a comprehensive and transformative education in software engineering with innovation and critical thinking by preparing proficient and adaptable professionals who can foster social and ethical responsibilities through evolving technologies for software solutions.	✓	✓	✓

Sr. No.	PLOs	PEO-1	PEO-2	PEO-3
1.	Engineering Knowledge	✓		



2.	Problem Analysis	✓		
3.	Design/Development of Solutions		✓	
4.	Investigation	✓		
5.	Modern Tool Usage	✓		
6.	The Engineer and Society			✓
7.	Environment and Sustainability			✓
8.	Ethics			✓
9.	Individual and Teamwork		✓	
10.	Communication		✓	
11.	Project Management		✓	
12.	Lifelong Learning			✓

Scholarships Offered:

1. University Merit Scholarship Scheme	9. National Bank Scholarship
2. MUST-Need Based Scholarship Program	10. Institutions of Engineers Pakistan (Saudi Arabian Center)
3. HBL Foundation Stipend Scheme (HBLFSS)	12. AJ&K Council Scholarship Scheme
4. HEC-Need Based Scholarship Programme	13. AJ&K State Talent Scholarship Scheme

5. Provincial Government Scholarship	14. Punjab Educational Endowment fund (PEEF)
6. Benevolent fund scholarships	15. USAID Scholarship
7. Pakistan Engineering Congress	16. Fauji Foundation
8. Banking Council Scholarship	17. Diya Pakistan
	18. ASHAI Educational Trust

Admission Criterion:

The admission requirements are as under:

- i. F. Sc. Pre-Engineering (Mathematics, Physics & Chemistry) with at least 60% marks or ICS (Mathematics, Physics & Computer Science) with at least 60% marks or equivalent qualification with at least 60% marks
- ii. Entry Test and Interview as per HEC/PEC requirements

Duration

8-14 Semesters

Scheme of Study

Revised for the Sessions:	Session (2023-2027) and Onwards
Duration:	8 Semesters
Courses:	130 Credits
Final Year Project:	6 Credits
Total:	136 Credits
Internship:	S/U Basis



Semester-1				
Course Code	Course Title	Credit Hrs.		Pre-req.
		Th	La b	
BSE-1101	Programming Fundamentals	3	0	NA
BSE-1101L	Programming Fundamentals	0	1	NA
ENG-1103	Functional English	3	0	NA
MAT-1105	Calculus & Analytical Geometry	3	0	NA
ICT-1126	Application of Information and Communication Technologies	2	0	NA
ICT-1126L	Application of Information and Communication Technologies	0	1	N
PHY-1108	Applied Physics	2	0	NA
PHY-1108L	Applied Physics	0	1	NA
ICP-1129	Ideology and Constitution of Pakistan	2	0	NA

HQT-1128	Holy Quran with Translation, Tajweed and Tafseer	S/U	NA	
Total		18		
Semester-2				
Course Code	Course Title	Credit Hrs.		Pre-req.
		Th	La b	
BSE-1201	Software Engineering Fundamentals	3	0	-
BSE-1202	Computer Architecture and Logic Design	3	0	-
BSE-1202L	Computer Architecture and Logic Design	0	1	-
QTR-1227	Quantitative Reasoning-I	3	0	-
ARA-1201	Arabic	2	0	-
BSE-1203	Occupational Health and Safety	1	0	-
BSE-1204	Object Oriented Programming	3	0	BSE-1101
BSE-1204L	Object Oriented Programming	0	1	BSE-1101L
HQT-1128	Holy Quran with Translation, Tajweed and Tafseer	S/U	NA	
Total		17 (35)		



Semester-3				
Course Code	Course Title	Credit Hrs.		Pre-req.
		Th	Lab	
BSE-2301	Data Structures and Algorithms	3	0	BSE-1101 & BSE-1101L
BSE-2301L	Data Structures and Algorithms	0	1	
BSE-2302	Database Systems	2	0	-
BSE-2302L	Database Systems	0	1	-
MAT-2306	Complex Variables and Transforms	2	0	-
BSE-2304	Introduction to Data Science	2	0	-
BSE-2304L	Introduction to Data Science	0	1	-
QTR-2328	Quantitative Reasoning-II	3	0	-
ISL-2312	Islamic Studies/Ethics (for non-Muslims)	2	0	-
HQT-1128	Holy Quran with Translation, Tajweed and Tafseer	S/U	NA	
Total		17 (52)		
Semester-4				
Course Code	Course Title	Credit Hrs.		Pre-req.

		Th	Lab	
BSE-2401	Probability & Statistics	3	0	-
BUE-1003	Professional Practices	2	0	
BSE-2403	Computer Networks	3	0	-
BSE-2403L	Computer Networks	0	1	-
BSE-2404	Design & Analysis of Algorithms	3	0	
BSE-2405	Operating Systems	2	0	-
BSE-2405L	Operating Systems	0	1	-
BUE-1007	Business Intelligence	3	0	
HQT-1128	Holy Quran with Translation, Tajweed and Tafseer	S/U	NA	
Total		18 (70)		
Semester-5				
Course Code	Course Title	Credit Hrs.		Pre-req.
		Th	Lab	
BSE-3501	Software Design & Architecture	2	0	BSE-2304
BSE-3501L	Software Design & Architecture (Core-Breadth)	0	1	
BSE-3502	Cloud Computing	2	0	-
BSE-3502L	Cloud Computing	0	1	-
MDE-3503	Embedded Systems	2	0	-
MDE-3503L	Embedded Systems	0	1	-



BSE-3504	Formal Methods in Software Engineering	2	0	-
BUE-1006	Software Engineering Economics	2		-
BDE-1013	Web Engineering	2	0	-
BDE-1013L	Web Engineering	0	1	
HQT-1128	Holy Quran with Translation, Tajweed and Tafseer	S/U	NA	
Total		16 (86)		
Semester-6				
Course Code	Course Title	Credit Hrs.		Pre-req.
		Th	Lab	
BSE-3601	Software Construction & Development	2	0	BSE-3501 & BSE-3501L
BSE-3601L	Software Construction & Development	0	1	
ENG-3607	Expository Writing	3	0	-
BSE-3603	Human Computer Interaction	3	0	-
BSE-3604	Software Quality Engineering	2	0	BSE-2304

BSE-3604L	Software Quality Engineering	0	1	BSE-2304
BDE-1004	Mobile Application Development	3	0	-
BDE-1004L	Mobile Application Development	0	1	
HQT-1128	Holy Quran with Translation, Tajweed and Tafseer	S/U	NA	
Total		16 (102)		
Semester-7				
Course Code	Course Title	Credit Hrs.		Pre-req.
		Th	Lab	
BSE-4701	Software Project Management	3	0	BSE-2304
BSE-4702	Information Security	2	0	-
BSE-4702L	Information Security	0	1	
BSE-4703	FYDP (Part-I)	0	3	-
ETRE-4711	Entrepreneurship	2		
BDE-1007	Artificial Intelligence	2	0	-



BDE-1007L	Artificial Intelligence	0	1	
BDE-1023	Software Requirement Engineering	3	0	-
HQT-1128	Holy Quran with Translation, Tajweed and Tafseer	S/U	NA	
Total		17 (119)		
Semester-8				
Course Code	Course Title	Credit Hrs.		Pre-req.
		Th	Lab	
CCE-4830	Civics and Community Engagement	2	0	-
MDE-4802	Internet of Things	2	0	-
BSE-4803	FYDP (Part-II)	0	3	-
BDE-1006	Machine Learning	2	0	-
BDE-1006L	Machine Learning	0	1	
BDE-1008	Natural Language Processing	2	0	
BDE-1008L	Natural Language Processing	0	1	

BDE-1016	Digital Image Processing	3	0	-
BDE-1016L	Digital Image Processing	0	1	
HQT-1128	Holy Quran with Translation, Tajweed and Tafseer	S/U	NA	
Total		17(136)		



Laboratories

Sr. #	Name of Lab	Type of Workstations	Nature of Experiments	No. of Students
1.	Development & Testing Lab	Core i3, 500 GB HD,4GB RAM	Hands-on	1-1
2.	Analysis & Design Lab	Core i3, 500 GB HD,4GB RAM	Hands-on	1-1
3.	Electronics Lab	1. analog and digital Trainer ETS-7000 8086 2. Microprocessor trainer MDA-win 3. Oscilloscope Aditeg Gos-620 (20 MHz) 4. Digital Multi meter	Hands-on	3 to 4
4.	General Programming Lab	1. Core i3, 500 GB HD,4GB RAM 2. Dual core, 250GB,1GB	Hands-on	1-2
5.	Research Lab	Intel CORE i3 HP Omni 200 PC	Hands-on	2-3





Alumni Message

During my time at MUST, I had the opportunity to discover my passions and refine my skills. We learnt about everything from the basics of programming to the latest trends in software development. We also got the opportunity to take electives in areas that we're interested in, so we can really customize our education. I'm so glad I chose to study software engineering at MUST University. The skills I acquired at MUST prove invaluable during my further studies in South Korea, providing a strong foundation for my academic and professional endeavours. If you're looking for a challenging and rewarding education in Software Engineering, then MUST University is the place for you



Bilal Ahmed
 B.Sc. Software Engineering
 Session: 2009-2013
 MS in Game Engineering (South Korea)

PhD in HCI (South Korea)
 POSTDOC In Brain Computer Interaction (BCI), South Korea

I am Muneeb Arif, a proud 2015 graduate of MUST with a degree in Software Engineering. . The Department of Software Engineering at MUST offers a unique and balanced environment for educational, professional, and personal growth. Our faculty is open to new ideas and actively supports students in transforming these ideas into reality. During my time at MUST, I gained valuable knowledge in my field and learned how to effectively apply it in the practical world. In 2017, I launched my own startup, and today, we are honored to serve a global clientele of over 4,000, helping them thrive online



Muneeb Arif
 B.Sc Software Engineering
 Session 2011-15
 Founder and Director
 Xebex - Pvt Ltd.



MS Software Engineering

The Program involves teaching high level approaches of software quality assurance, information security and human computer interaction. The program ensures that the student will be able to conduct research and work along in a team and maintain lifelong learning. The program is designed according to international standards such as ACM/IEEE Curriculum guidelines in addition, the program was benchmarked with the international universities across the world such as University of Glasgow, Queen Mary university of London, UK, California state university, Northridge, USA, King Fahd university of petroleum and minerals. In addition, various recent research concerned with the MSc in software Engineering curriculum are used in guidelines with Higher Education Commission (HEC) of Pakistan.

Program Objectives

- Prepare students with theoretical background of software engineering concepts and train them on applied research of the field.
- 2. Prepare students who can critically apply concepts, theories, and practices to provide creative solutions to complex computing problems.
- 3. To respond to the current and emerging industrial needs utilizing modern trends for building complex software systems

Degree Requirements:

- Four (4) courses (12 credit hours) from the core courses
- AND
- Four (4) courses of 12 credit hours' graduate elective courses of which two graduate courses may be taken from other areas.

AND

Satisfactory defense of MS-Software Engineering thesis consisting of 6 credit hours according to the University prescribed format.

Duration:

- | Full Time | Part Time |
|--|---|
| <ul style="list-style-type: none"> • Minimum Semesters = 4 • Maximum Semester = 6 • Credit Hours = 31 • Semester Duration = 18 Weeks • 16 Weeks of Teaching • 2 Week Examination | <ul style="list-style-type: none"> • Minimum Semesters = 6 • Maximum Semester = 10 • Credit Hours = 31 • Semester Duration = 18 Weeks • 16 Weeks of Teaching • 2 Week Examination |

Admission Criterion:

- **Qualification**
 - B.Sc. (Software Engineering) / BS(SE) /B. E (SE) 4 years' degree program accredited with Pakistan Engineering Council (PEC).
- OR
- *B.Sc. (Computer Engineering) 4 years' degree program accredited with Pakistan Engineering Council (PEC).
 - **Grades**
 - Semester Based Examination
 - CGPA (3.0 out of 4.0)
 - Annual System
 - Min Second Division
 - No 3rd division is allowed.



- GAT / NTS general valid test.
- HEC attested degrees where applicable

Scheme of Study (MS Software Engineering)

Duration:	4 Semesters
Core Courses:	9 Credit Hours
Elective Courses	15 Credit Hours
Thesis	6 Credit Hours
Total:	30 Credit Hours

Semester-1				
Course Code	Course Title	Credit Hrs		Prerequisite
		Th	Lab	
MSE-7101	Advanced Requirements Engineering (Core)	3	0	
MSE-7102	Software Testing and Quality Assurance (Core)	3	0	
	Elective-I	3	0	
	Elective-II	3	0	
Total		12		
Semester-2				
Course Code	Course Title	Credit Hrs		Prerequisite
		Th	Lab	

MSE-7202	Advance Software System Architecture (Core)	3	0	
	Elective-III	3	0	
	Elective-IV	3	0	
	Elective-V	3	0	
Total		12		
Semester-3				
Course Code	Course Title	Credit Hrs		Prerequisite
		Th	Lab	
MSE-7301	Thesis	0	6	
Total		6		

List of Elective Courses

Course Code	Course Title	Credit Hours
MSE-7103	Research Methodology	3+0
MSE-7104	Software Risk Management	3+0
MSE-7105	Software Measurement and Metrics	3+0
MSE-7106	Software Configuration Management	3+0
MSE-7107	Component Based Software Engg.	3+0
MSE-7108	Design Patterns	3+0
MSE-7109	Complex Networks	3+0



MSE-7201	Software Project Management	3+0
MSE-7203	Agent Based Modelling	3+0
MSE-7204	Formal Methods in Software Engineering	3+0
MSE-7205	Aspect Oriented Software Development	3+0
MSE-7206	Automated Software Engineering	3+0
MSE-7207	Web Engineering	3+0
MSE-7208	Advanced Human Computer Interaction	3+0
MSE-7209	Usability Engineering	3+0
MSE-7210	Advanced Operating Systems	3+0
MSE-7211	Advance Databases	3+0
MSE-7212	Data Mining and Warehousing	3+0
MSE-7213	Distributed Databases	3+0
MSE-7214	Computer Vision	3+0
MSE-7215	Bio-informatics	3+0
MSE-7216	Digital Image Processing	3+0
MSE-7217	Machine Learning	3+0
MSE-7218	Pattern Recognition	3+0
MSE-7219	Artificial Intelligence	3+0
MSE-7220	Ubiquitous Computing	3+0
MSE-7221	Big Data	3+0
MSE-7222	Data Science	3+0

MSE-7223	Internet of Things	3+0
MSE-7224	Sustainable Software Engineering	3+0
MSE-7225	Advanced Computer Networks	3+0
MSE-7226	Blockchain Technology	3+0
MSE-7227	E-Commerce	3+0
MSE-7228	Advanced Programming Techniques	3+0
MSE-7229	Cyber Security	3+0
MSE-7230	Medical Image Processing	3+0
MSE-7231	Multimedia Systems	3+0
MSE-7232	Semantic Web	3+0
MSE-7233	Green Computing	3+0
Any other elective course as offered by the department		



Alumni Message

Engr. Fakhar Jabran, currently in the 4th semester of Software Engineering at MUST University, has made significant contributions to XR technology. His thesis, "Metaverse-Based University Campus," earned him the Prime Minister's National Innovation Award. Following this achievement, Engr. Fakhar was incubated at NUST's National Science & Technology Park, where he advanced immersive learning technologies. Selected for startup accelerators in Australia, including Spacecubed in Perth and iAccelerate at the University of Wollongong, Fakhar continues to inspire others with his dedication to innovation. He is always available for free training sessions for MUST students.



Engr. Fakhar jabran
Ms software engineering
(4th semester)
Department of software engineering
MUST

After completing his bachelor's in software engineering from must in 2014, Awais khan got employed at must as lecturer. During his job, he completed his Ms from department of software engineering, must in 2021. He is currently doing PhD in machine learning from memorial university newfoundland, Canada. He holds a strong understanding of his work and for it, he credits his institutions must Aj&K. Awais cherishes his time at must as it opened many opportunities for him, and he made some lifelong friends.



Engr. Awais khan
Session 2019-21
PhD scholar (Canada)



PhD in Software Engineering

The Department of Software Engineering offers a PhD in Software Engineering. Research at this level encompasses a wide range of Software Engineering fields, including artificial intelligence, natural language processing, machine learning, image processing, cybersecurity, cloud computing, and large-scale system architectures.

Program mission:

To enhance the theory and practice in the domain of Software Engineering by creation of new knowledge and highly qualified academicians and fostering innovation in the core areas of Software Engineering and applied computing disciplines.

Objectives

The objectives of PhD (Software Engineering) program are:

1. To equip scholars with necessary knowledge, relevant tools and techniques to make significant contribution in the field of study by conducting quality research independently or in collaboration.
2. To prepare scholars to effectively disseminate result in the form of written and oral presentation
3. To produce skilled professionals who can take up the challenges associated with the advancement of science and technology in industry or in academia.

Admission Criterion

The eligibility criteria for admission to the Ph.D. degree programme shall be as under:

1. Have passed MS, M.Phil., and M.Sc. (Engineering with research work) or equivalent 18-years education with at least CGPA

- 3.00/4.00 and at least CGPA 3.50/5.00 (at least 65% marks) in semester systems and 1st Division (60% marks) in annual system of examination.
2. Candidate should have no 3rd division in his/ her academic career.
3. The candidate must have passed the GRE subject test or equivalent as per HEC/ University requirements.
 - i In the case of Graduate Assessment Test (GAT) a minimum of 60% score is required.
 - ii In the case of GRE subject test, a minimum of 60% percentile score is required

Degree Requirements

- i A candidate must complete a minimum of 18 credit hours course work in maximum four semester duration.
- ii Two Seminars of one credit hour each (02 credit hours).
- iii Synopsis to be submitted at the end of third semester.
- iv Comprehensive examination (Written + Oral).
- v Thesis Defense at Department/ Institute/ Centre/ School/ College level on a topic approved by the Advanced Studies & Research Board (50 credit hours).
- vi A Ph.D. scholar is required to publish at least one research paper from his/ her Ph.D. research work in the HEC recognized journal before the award of the degree.
- vii Evaluation of thesis by two foreign external examiners from technologically advanced countries and one local external examiner.
- viii Open Public Defense.

Duration

The duration of the program will not be less than six semesters and more than sixteen semesters.



Scheme of Study PhD Software Engineering

OPTION-1			
Semester I			
Course Code	Type	Subject	Cr Hrs
PSE-81XX	Elective Course	Offered from Ph.D. courses list	3
PSE-81XX	Elective Course	Offered from Ph.D. courses list	3
PSE-81XX	Elective Course	Offered from Ph.D. courses list	3
Semester II			
PSE-81XX	Elective Course	Offered from Ph.D. courses list	3
PSE-81XX	Elective Course	Offered from Ph.D. courses list	3
PSE-81XX	Elective Course	Offered from Ph.D. courses list	3
Semester III-XVI			
PSE-81XX	Compulsory	Comprehensive Exam	0 (Pass/Fail)
PSE-8100	Compulsory	Seminar-I	1
PSE-8101	Compulsory	Seminar-II	1
PSE-8000	Compulsory	Thesis	50
Note: Semester III-XVI also includes passing Comprehensive Exam (Written Oral), Ph.D. Research Proposal, Final Open Defense			
OPTION-2			
Semester I			
Code	Type	Subject	Cr Hrs

PSE-81XX	Elective Course	Offered from Ph.D. courses list	3
PSE-81XX	Elective Course	Offered from Ph.D. courses list	3
Semester II			
PSE-81XX	Elective Course	Offered from Ph.D. courses list	3
PSE-81XX	Elective Course	Offered from Ph.D. courses list	3
Semester III			
PSE-81XX	Elective Course	Offered from Ph.D. courses list	3
PSE-81XX	Elective Course	Offered from Ph.D. courses list	3
Semester IV-XVI			
PSE-8200	Compulsory	Comprehensive Exam	S/U (Pass/Fail)
PSE-8100	Compulsory	Seminar-I	1
PSE-8101	Compulsory	Seminar-II	1
PSE-8000	Compulsory	Thesis	50

List of Elective Courses

Course Code	Title of Course	Cr. Hrs.
PSE-8102	Advanced Human Computer Interaction	3
PSE-8103	Advanced Usability Engineering	3
PSE-8104	Formal Methods and Specifications	3
PSE-8105	Advanced Software Engineering	3
PSE-8106	Software Re-Engineering	3
PSE-8107	Component-Based Software Engineering	3
PSE-8108	Agile Methods	3



PSE-8109	Verification and Validation	3
PSE-8110	Advanced Software Requirements Engineering	3
PSE-8111	Empirical Software Engineering	3
PSE-8112	Model Driven Software Engineering	3
PSE-8113	Special Topics in Software Engineering	3
PSE-8114	Advanced Web Computing System and Application	3
PSE-8115	Service Oriented Computing	3
PSE-8116	Middleware For Networked and Distributed Systems	3
PSE-8117	Cloud Computing	3
PSE-8118	Advanced Distributed Systems	3
PSE-8119	Advanced e-Learning Systems	3
PSE-8120	Advanced Semantic Web	3
PSE-8121	Ontology Engineering	3
PSE-8122	Complex Adaptive Systems	3
PSE-8123	Advanced System Modeling and Simulation	3
PSE-8124	Agent Based Modeling	3
PSE-8125	Advanced Big Data Analytics	3
PSE-8126	Advanced Artificial Intelligence	3
PSE-8127	Advanced Natural Language Processing	3
PSE-8128	Advanced Neural Networks and Fuzzy Logic	3
PSE-8129	Pattern Recognition	3
PSE-8130	Advanced Data Mining	3
PSE-8131	Advanced Data Warehousing	3
PSE-8132	Advanced Information Retrieval	3
PSE-8133	Machine learning	3
PSE-8134	Data Visualization	3
PSE-8135	Deep Learning and Data Analysis	3

PSE-8136	Text Mining	3
PSE-8137	Computer Vision	3
PSE-8138	Bio Medical Image Analysis	3
PSE-8139	Computer Supported Cooperative Work	3
PSE-8140	Advanced Digital Image Processing	3
PSE-8141	Intelligent Tutoring System	3
PSE-8142	Research Methodology	3
PSE-8143	Advanced Engineering Mathematics	3
PSE-8144	Design of Fault-Tolerant Systems	3
PSE-8145	Power Aware Computing	3
PSE-8146	Ubiquitous Computing and Interaction	3
PSE-8147	Advanced Cryptography	3
PSE-8148	Advanced Operating Systems	3
PSE-8149	Advanced Computer Graphics	3
PSE-8150	Distributed Databases	3
PSE-8151	IP Multimedia System	3
PSE-8152	Parallel Processing	3
PSE-8153	Advanced Computer Architecture	3
PSE-8154	Object Oriented Databases	3
PSE-8155	Web Based DBMS	3
PSE-8156	Multimedia Databases	3
PSE-8157	Advanced Computer Networks	3
PSE-8158	Advanced Internet Technologies	3
PSE-8159	Advanced Network Security	3
PSE-8160	Advanced Embedded Systems	3
PSE-8161	Advanced Digital System Design	3
PSE-8162	Wireless Sensor Networks	3
PSE-8163	Mobile and ad-hoc Networks	3
PSE-8164	Advanced Digital Signal Processing	3





Won Prime Minister National Innovation Award, 23rd July 2023



2nd Federal Engineering Expo 2024 (Final year Engineering design Projects Exhibition) 23rd January, 2024



Abdul Ahad B.Sc. Software Engineering (6th Semester)
attending
Global UGRAD
exchange program,
USA





MIRPUR INSTITUTE OF Technology

Vision

To Transfer technology incubation and enterprising spirit among student for the advancement of society as a whole creating wealth and economic opportunity to all. To develop excellent professionals for the economic development of the country.

Degree Programs Offered

B.Sc Architectural Engineering Technology
B.Sc Biomedical Engineering Technology
B.Sc Civil Engineering Technology
B.Sc Electrical Engineering Technology
B.Sc Information Engineering Technology
MS Civil Technology
MS Electrical Technology





Director MIT
Dr. Sajjad Manzoor
Tel. +92-5827-961062
Email: chairperson_et@must.edu.pk

Message from Director

It's a moment of pride and satisfaction to welcome you in MIT, MUST. It is my hope that through our programs, we are able to provide quality training which will enable our graduates to effectively engage in providing services in community settings. At MIT, we MUST believe in active learning through a participatory approach whether we are dealing with academics or planning services for individual and community needs. We pursue a holistic approach to understand human issues and attempt to explore their solutions. MIT MUST fosters a culture of collaborative learning through innovative models of teaching and training. We understand that growth entails changes within and outside ourselves and, therefore, offer opportunities to our students and colleagues to reflect and engage in critical thinking.

Our curriculum is designed to ensure that our graduates will have the skills and the capacity to play a role in the national and global markets through service, research, policymaking and advocacy.

At MIT, we must aspire to develop the department into an icon of quality training of international standards, and our endeavors are making promising headways. If challenges excite you and you long for opening new windows through interdisciplinary endeavors, MIT MUST provide you with a platform to do just that.

I warmly welcome our new students who are embarking on this new journey towards transformation and excellence.





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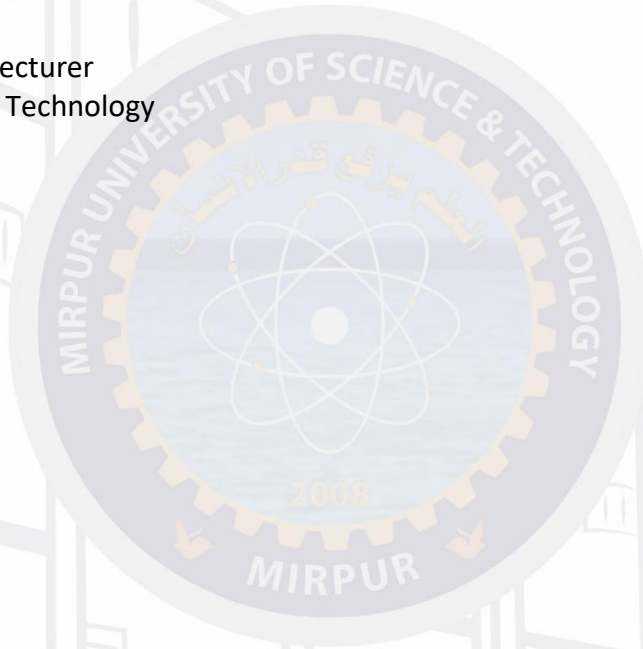
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B.Sc. Civil Engineering Technology

A 4-Year degree, entitled, BS in Civil Engineering Technology provides the bright students an opportunity to realize their dream as Technologists by advancing their higher education in technical fields. It is an internationally recognized degree, which is offered in all advanced countries like USA, Canada, Australia, UK, Malaysia, and many more. The NTC is applying for membership of Sydney Accord (<http://www.ieagreements.org/accords/sydney/>). Sydney accord is global accreditation for engineering technologists of the signatory countries, whereas Washington Accord is for global accreditation for engineers.

1. To standardize 4-year degree in engineering, technologies, NTC has given 4-year curricula for BS (Engineering Technology) in Civil, Electrical, Biomedical, Information and Architectural. The following distinct features of the curricula are stated here for information.
2. All programs have three years (6 semesters) of formal classroom education.
3. In both 7th and 8th semesters (fourth year), a student registers 16 credit hours of “Supervised Industrial Training (16 credit hours)” and three credit hours of Project.
4. In the first three years, more emphasis has been put on lab work than theory classes. For example, during any semester of BS (Engineering), a student takes 15-16 credit hours of theory, and 2-3 credit hours of lab courses. However, in BS (Engineering Technology), a student takes 10-11 credit hours of theory and 5-7 credit hours of lab courses.

5. In engineering programs, 1-credit lab means 3 hours of supervised lab work, whereas, in engineering technology curriculum, it is two hours of lab work.
6. The program shall be structured based on Outcome Based Education (OBE) system.

Mission Statement

To provide quality education and produce competent Civil Engineering technologists conscious of professional, ethical, and social responsibilities for productive careers in industry in national and international level.

Program Educational Objectives (PEOs)

PEO 1	Equipped with sound knowledge and modern skills enabling them to address technological challenges in professional environment.
PEO 2	Engaged in life-long learning to play role for global sustainability along with socio-economic betterment as an individual or a team in the civil engineering technology sector.
PEO 3	Successful in attaining position of leadership of a small section/ team and enjoying good repute in terms of communication, managerial skills and professional ethics.

MAPPING OF PLOs WITH PEOs

PLOs	Description	PEO:1	PEO:2	PEO:3



PLO:1	Engineering Technology Knowledge	✓		
PLO:2	Problem Analysis	✓		
PLO:3	Design/Development of Solutions	✓		
PLO:4	Investigation	✓		
PLO:5	Modern Tool Usage	✓		
PLO:6	The Engineering Technologist and Society		✓	
PLO:7	Environment and Sustainability		✓	
PLO:8	Ethics			✓
PLO:9	Individual and Teamwork		✓	
PLO:10	Communication			✓
PLO:11	Project Management			✓
PLO:12	Lifelong Learning		✓	

Program Learning Outcomes (PLOs)

PLO-1	Engineering Technology Knowledge: An ability to apply knowledge of mathematics, natural science, Engineering Technology fundamentals and Engineering Technology specialization to defined and applied Engineering Technology procedures, processes, systems or methodologies.
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PLO-2	Problem Analysis: An ability to Identify, formulate, research literature and analyze broadly defined Engineering Technology problems reaching substantiated conclusions using analytical tools appropriate to the discipline or area of specialization.
PLO-3	Design/Development of Solutions: An ability to design solutions for broadly- defined Engineering Technology problems and contribute to the design of systems, components or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
PLO-4	Investigation: An ability to conduct investigations of broadly-defined problems; locate, search and select relevant data from codes, data bases and literature, design and conduct experiments to provide valid conclusions.
PLO-5	Modern Tool Usage: An ability to Select and apply appropriate techniques, resources, and modern technology and IT tools, including prediction and modelling, to broadly-defined Engineering Technology problems, with an understanding of the limitations.
PLO-6	The Engineering Technologist and Society: An ability to demonstrate understanding of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to Engineering Technology practice and solutions to broadly defined Engineering Technology problems.
PLO-7	Environment and Sustainability: An ability to understand and evaluate the sustainability and impact of Engineering Technology work in the solution of broadly



	defined Engineering Technology problems in societal and environmental contexts.
PLO-8	Ethics: Understand and commit to professional ethics and responsibilities and norms of Engineering Technology practice
PLO-9	Individual and Teamwork: An ability to Function effectively as an individual, and as a member or leader in diverse teams.
PLO-10	Communication: An ability to communicate effectively on broadly defined Engineering Technology activities with the Engineering Technologist community and with society at large, by being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PLO-11	Project Management: An ability to demonstrate knowledge and understanding of Engineering Technology management principles and apply these to one's own work, as a member or leader in a team and to manage projects in multidisciplinary environments.
PLO-12	Lifelong Learning: An ability to recognize the need for and have the ability to engage in independent and life-long learning in specialist Engineering Technologies.

Scheme of Study (B.Sc. Civil Engineering Technology)

Programme Duration:	8-14 Semesters
Courses:	97 Credits hours
Project:	06 Credits hours
Supervised Industrial Training:	32 Credits hours

Total	135 Credits hours
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Semester I			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
QTR-1101	Applied Mathematics I	3+0	3+0
ISL-1112	Islamic Studies	2+0	2+0
CET-1101	Materials and Methods of Construction	2+0	2+0
CET-1101L	Materials and Methods of Construction Lab	0+1	0+3
PHY-1108	Applied Physics	2+0	2+0
PHY-1108L	Applied Physics Lab	0+1	0+3
ENG-1103	Functional English	3+0	3+0
CET-1102	Surveying	1+0	1+0
CET-1102L	Surveying Lab	0+2	0+6
Total		17	26

Semester II			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
CET-1201	Concrete Technology	1+0	1+0
CET-1201L	Concrete Technology Lab	0+2	0+6
ENG-1202	Communication Skills	3+0	3+0
CET-1203	Civil Engineering drawing, Drafting and Interpretation	1+0	1+0



CET-1203L	Civil Engineering drawing, Drafting and Interpretation Lab	0+2	0+6
ICT-1226	Applications of Communication & Information Technologies	2+0	2+0
ICT-1226L	Applications of Communication & Information Technologies	0+1	0+3
MAT-1205	Applied Mathematics II	3+0	3+0
ARA-1201	Arabic	2+0	2+0
CHE-1204	Applied Chemistry	0+0	0+0
Total		17	27
Semester III			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
CCE-2330	Civics & Community Engagement	2+0	2+0
ICP-2329	Ideology and Constitution of Pakistan	2+0	2+0
ETH-2332	Professional Ethics	2+0	2+0
CET-2301	Environmental Technology	1+0	1+0
CET-2301L	Environmental Technology Lab	0+1	0+3
CET-2302	Fluid Mechanics	2+0	2+0
CET-2302L	Fluid Mechanics Lab	0+1	0+3
CET-2303	Mechanics of Solids	2+0	2+0
CET-2303L	Mechanics of Solids Lab	0+1	0+3

CET-2304	Evolution of Architecture and Engineering	2+0	2+0
	Total	16	22

Semester IV			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
CET-2401	Transportation and Highway Technology	2+0	2+0
CET-2401L	Transportation and Highway Technology Lab	0+2	0+6
HUM-2402	Human Skills	2+0	2+0
CET-2403	Soil Mechanics	1+0	1+0
CET-2403L	Soil Mechanics	0+2	0+6
CET-2404	Structural Principles	2+0	2+0
ENG-2407	Technical & Scientific Writing	3+0	3+0
ECO-246	Fundamentals of Applied Economics	3+0	3+0
	Total	17	25

Semester V			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
CET-3501	Hydrology	1+0	1+0
CET-3501L	Hydrology Lab	0+1	0+3
CET-3502	Reinforced and Prestressed Concrete	2+0	2+0



CET-3502L	Reinforced and Prestressed Concrete Lab	0+1	0+3
CET-3503	Construction Equipment and Jobsite Practices	2+0	2+0
CET-3503L	Construction Equipment and Jobsite Practices Lab	0+1	0+3
CET-3504	Computer Aided Drawing and Building Information Modelling	1+0	1+0
CET-3504L	Computer Aided Drawing and Building Information Modelling Lab	0+2	0+6
CET-3505	Geotechnical Investigation and Foundations	1+0	1+0
CET-3505L	Geotechnical Investigation and Foundations Lab	0+1	0+3
MDE-3506	Electro-Mechanical Technology	2+0	2+0
CET-3507	Project Part -I	0+3	0+9
Total		18	36
Semester VI			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
CET-3601	Geology	1+1	2+0
CET-3602	Irrigation Technology	3+0	3+0
CET-3603	Construction of Steel Structures	2+0	2+0
CET-3603L	Construction of Steel Structures Lab	0+1	0+3

CET-3604	Quantity Surveying and Estimation	1+0	1+0
CET-3640L	Quantity Surveying and Estimation Lab	0+2	0+6
CET-3605	Maintenance and Repair of Civil Works	1+0	1+0
CET-3605L	Maintenance and Repair of Civil Works	0+1	0+3
ETRE-3608	Technopreneurship	2+0	2+0
CET-3606	Project Part-II	0+3	0+9
	Total	18	36

Semester VII			
Course Code	Subject	Cr. Hrs	Cont. Hrs.
CET-4701	Supervised Industrial Training	16	40Hrs/ Week
	Total	16	640
Semester VIII			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
CET-4801	Supervised Industrial Training	16	40Hrs/ Week
	Total	16	640

Laboratories

Sr. #	Name of Laboratory	Lab (s) Course (s) Conducted in the Lab	No of students
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PROSPECTUS 2024-25

1	Transportation Engineering Laboratory (Shared)	Transportation Engineering-I, Transportation Engineering-II	5-7
2	Computer Aided Design Laboratory (Shared)	Computer Fundamentals, Building Construction Drawing & Graphics (AutoCAD) , Computer Programming	5-7
3	Fluid Mechanics and Hydraulics Engineering Lab (Shared)	Fluid Mechanics , Advanced Fluid Mechanics, Hydraulics Engineering, Engineering Hydrology, Irrigation Engineering	5-7
4	Concrete Testing Laboratory (Shared)	Plain and Reinforced Concrete-I , Plain and Reinforced Concrete-II Properties of Concrete	5-8
5	Geotechnical Engineering Laboratory (Shared)	Geo-Technical Engineering-I, Geo-Technical Engineering-II, Foundation and Pavement Engineering	5-8



B.Sc. Electrical Engineering Technology

A 4-year degree, entitled, BS in Electrical Engineering Technology provides the bright students an opportunity to realize their dream as Technologists by advancing their higher education in technical fields. It is an internationally recognized degree, which is offered in all advanced countries like USA, Canada, Australia, UK, Malaysia, and many more. The National Technology Council (NTC) is applying for membership of Sydney Accord (<http://www.ieagreements.org/accords/sydney/>). Sydney accord is global accreditation for engineering technologists of the signatory countries, whereas Washington Accord is for global accreditation for engineers.

In order to standardize a 4-year degree in engineering technologies, NTC has given 4-year curricula for Bachelor of Engineering Technology in Civil, Electrical, Biomedical, Information and Architectural. The following distinct features of the curricula are stated here for information;

1. All programs have three years (6 semesters) of formal classroom education.
2. In both 7th and 8th semesters (fourth year), a student registers 16 credit hours of Supervised **Industrial** Training (16 credit hours) and three credit hours of Project in each semester.
3. In the first three years, more emphasis has been put on lab work than theory classes. For example, during any semester of BS (Engineering), a student takes 15-16 credit hours of theory, and 2-3 credit hours of lab courses. However, in BS (Engineering Technology), a student takes 10-11 credit hours of theory and 5-7 credit hours of lab courses.

4. In engineering programs, 1-credit lab means 3 hours of supervised lab work, whereas, in engineering technology curriculum, it is 2 credit hours mean 6 hours of lab work.

5. The program shall be structured based on Outcome Based Education (OBE) system.

Mission Statement

To provide quality education and produce competent Electrical technologists conscious of professional, ethical, and social responsibilities for productive careers in industry at a national and international level.

Program Educational Objectives (PEOs)

PEO 1:To produce competent electrical engineering technologists having strong technical knowledge to serve national and international industries and organizations.

PEO 2:To fulfil the needs of society in identifying and solving technical challenges in engineering technology and related fields using fundamental engineering technology principles with modern tools and practices.

PEO 3:To instill the ability to communicate and function effectively as individuals and team- members with leadership and entrepreneurial potential.

PEO 4 :To demonstrate life-long learning through advanced technical and professional development activities to enhance their ethics and skills and capabilities for personal growth and betterment of society and environment.



MAPPING OF PEOs AND PLOs

PLOs	Description	PEO:1	PEO:2	PEO:3	PEO:4
PLO:1	Engineering Technology Knowledge	✓			
PLO:2	Problem Analysis		✓		
PLO:3	Design/Development of Solutions		✓		
PLO:4	Investigation		✓		
PLO:5	Tool Usage		✓		
PLO:6	The Engineer and the World				✓
PLO:7	Ethics				✓
PLO:8	Individual and Collaborative Teamwork			✓	
PLO:9	Communication			✓	
PLO:10	Project Management and Finance	✓			
PLO:11	Lifelong Learning				✓

Program Learning Outcomes (PLOs)

PLO-1	Engineering Knowledge SA1: Apply knowledge of mathematics, natural science, computing and engineering fundamentals and an engineering specialization as specified in SK1 to SK4 respectively to defined and applied engineering procedures, processes, systems, or methodologies.
PLO-2	Problem Analysis SA2: Identify, formulate, research literature, and analyze broadly defined engineering problems reaching substantiated conclusions using analytical tools appropriate to the discipline or area of specialization. (SK1 to SK4).
PLO-3	Design/Development of Solutions SA3: Design solutions for broadly defined engineering technology problems and contribute to the design of systems, components, or processes to meet identified needs with appropriate consideration for public health and safety, whole-life cost, net zero carbon as well as resource, cultural, societal, and environmental considerations as required (SK5).
PLO-4	Investigation SA4: Conduct investigations of broadly defined engineering problems; locate, search and select relevant data from codes, data bases and literature, design and conduct experiments to provide valid conclusions (SK8)



PLO-5	Tool Usage SA5: Select and apply, and recognize limitations of appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to broadly defined engineering problems (SK2 and SK6)
PLO-6	The Engineer and the World SA6: When solving broadly defined engineering problems, analyze and evaluate sustainable development impacts (represented by the 17 UN-SDGs) to: society, the economy, sustainability, health and safety, legal frameworks, and the environment (SK1, SK5, and SK7)
PLO-7	Ethics SA7: Understand and commit to professional ethics and norms of engineering technology practice including compliance with national and international laws. Demonstrate an understanding of the need for diversity and inclusion (SK9).
PLO-8	Individual and Collaborative Teamwork SA8: Function effectively as an individual, and as a member or leader in diverse and inclusive teams and in multi-disciplinary, face-to-face, remote, and distributed settings (SK9).
PLO-9	Communication SA9: Communicate effectively and inclusively on broadly defined engineering activities with the engineering community and

	with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, taking into account cultural, language, and learning differences.
PLO-10	Project Management and Finance: SA10: Apply knowledge and understanding of engineering management principles and apply these to one's own work, as a member or leader in a team and to manage projects in multidisciplinary environments.
PLO-11	Lifelong Learning: SA11: Recognize the need for, and have the ability for (i) independent and life-long learning and (ii) critical thinking in the face of new specialist technologies (SK8)

Scheme of Study (B.Sc. Electrical Engineering Technology)

Semester I			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
HS-111	Islamic Studies / Professional Ethics	2	2
GS-112	Applied Mathematics-I	3	3
GS-113	Applied Physics	2	2
GS-113L	Applied Physics Lab	1	3
ET-114	Basic Circuit Analysis	2	2
ET-114L	Basic Circuit Analysis Lab	2	6



ET-115	Engineering Drawing	1	1
ET-115L	Engineering Drawing Lab	2	6
ET-116	Introduction to Computer Fundamentals	2	2
ET-116L	Introduction to Computer Fundamentals Lab	1	3
	Total	18	30
Semester II			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
HS-121	Fundamentals of English	2	2
HS-122	Pakistan Studies	2	2
ET-123	Electronics	2	2
ET-123L	Electronics Lab	2	6
ET-124	Basic Mechanical Technology	2	2
ET-124L	Basic Mechanical Technology Lab	1	3
GS-125	Applied Mathematics -II	3	3
ET-126	AC Circuit Analysis	2	2
ET-126L	AC Circuit Analysis Lab	2	6
	Total	18	28
Semester III			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
ET-231	Power Generation Systems	2	2
HS-232	Technical Report Writing & Presentation Skills	2	2

ET-233	Electrical Instruments and Measurements	2	2
ET-233L	Electrical Instruments and Measurements Lab	2	6
ET-234	Electrical Machines-I	2	2
ET-234L	Electrical Machines-I Lab	1	3
ET-235	Digital Electronics	2	2
ET-235L	Digital Electronics Lab	2	6
ET-236L	Workshop Practice Lab	1	3
	Total	16	28
Semester IV			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
ET-241	Electrical Machines-II	2	2
ET-241L	Electrical Machines-II Lab	2	6
ET-242	Electro-Magnetic Fields Theory	2	2
ET-243	Electrical Power Transmission	2	2
ET-243L	Electrical Power Transmission Lab	1	3
ET-244	Electrical Power Distribution and Utilization	2	2
ET-244L	Electrical Power Distribution and Utilization Lab	1	3
ET-245	Power Electronics	2	2
ET-245L	Power Electronics Lab	2	6
GS-246	Total Quality Management	2	2
	Total	18	30



Semester V			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
ET-351	Micro-Processor Theory & Interfacing	2	2
ET-351L	Micro-Processor Theory & Interfacing Lab	1	3
ET-352	Switch Gear & Protective Devices	2	2
ET-352L	Switch Gear & Protective Devices Lab	1	3
ET-353	Communications Technology	2	2
ET-353L	Communications Technology Lab	2	6
ET-354	Control Technology	2	2
ET-354L	Control Technology Lab	1	3
ET-355	High Voltage Technology	2	2
ET-355L	High Voltage Technology Lab	1	3
ET-356	Project-I	2	6
	Total	18	30
Semester VI			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
GS-361	Project Management	1	1
ET-362	Power System Analysis	2	2
ET-363	Data and Computer Communication	2	2
ET-363L	Data and Computer Communication Lab	2	6

ET-364	Industrial Drives & PLC	2	2
ET-364L	Industrial Drives & PLC Lab	2	6
HS-365	Arabic	2	2
ET-366	Project-II	4	12
	Total	17	33
Semester VII			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
ET-471	Supervised Industrial Training	16	40Hrs/Week
	Total	16	640
Semester VIII			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
ET-481	Supervised Industrial Training	16	40Hrs/Week
	Total	16	640

Laboratories

Sr. #	Name of Laboratory	Lab (s) Course (s) Conducted in the Lab	No of students/workstation
1	Electrical Technology Lab	Basic Circuit Analysis, AC Circuit Analysis, Electronics	3-5
2	Machine Lab (Shared)	AC Machine, DC Machine	3-5



3	Power System Protection and Transmission Lab (Shared)	Switchgear and Protective Devices, Electrical Power Transmission	3-5
4	DLD Lab (Shared)	Digital Electronics, Microprocessor Theory and Interfacing	3-5
5	Power Distribution and Utilization (Shared)	Electrical Power Distribution and Utilization	3-5
6	Electronics Lab	Electronics, Power Electronics	3-5
7	High Voltage Lab	High Voltage Technology	3-5



B.Sc. Biomedical Engineering Technology

A 4-year degree, entitled BSc Biomedical Engineering Technology provides the bright students an opportunity to realize their dream as Technologists by advancing their higher education in technical fields. It is an internationally recognized degree, which is offered in all advanced countries like USA, Canada, Australia, UK, Malaysia, and many more. The NTC is applying for membership of Sydney Accord (<http://www.ieagreements.org/accords/sydney/>). Sydney accord is global accreditation for engineering technologists of the signatory countries, whereas Washington Accord is for global accreditation for engineers.

In order to standardize a 4-year degree in engineering technologies, NTC has given 4-year curricula for BS (Engineering Technology) in Civil, Electrical, Architectural, Biomedical and Information. The following distinct features of the curricula are stated here for information;

1. All programs have three years (6 semesters) of formal classroom education.
2. In both 7th and 8th semesters (fourth year), a student registers 15 credit hours of “Supervised Industrial Training (15 credit hours)” and three credit hours of Project.
3. In the first three years, more emphasis has been put on lab work than theory classes. For example, during any semester of BS (Engineering), a student takes 15-16 credit hours of theory, and 2-3 credit hours of lab courses. However, in BS (Engineering Technology), a student takes 10-11 credit hours of theory and 5-7 credit hours of lab courses.

4. In engineering programs, 1-credit lab means 3 hours of supervised lab work, whereas, in engineering technology curriculum, it is two hours of lab work.
5. The program shall be structured based on Outcome Based Education (OBE) system.

Program Mission

To produce biomedical engineering technologists well equipped with knowledge, professional, ethical, social skills and heaving passion for innovation and entrepreneurship in health care industry

Vision & Mission	PEO 1	PEO 2	PEO 3
University Vision: To be a superior teaching and research institution, having transformative impact on society and acting as a knowledge corridor between Azad Jammu & Kashmir, Pakistan, and rest of the world.	✓	✓	✓
University Mission: MUST is committed to all-encompassing growth of its students, besides enabling them to tap the world of knowledge and assume leadership role in the future through a process of continual innovation in education, research, creativity, technological advancement, and entrepreneurship.	✓	✓	✓



Program Mission: To produce biomedical engineering technologists well equipped with knowledge, professional, ethical, social skills and having passion for innovation and entrepreneurship in health care industry.	✓	✓	✓
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Mapping of PEOs with PLOs

PLOs	Description	PEO:1	PEO:2	PEO:3
PLO:1	Engineering Technology Knowledge	✓		
PLO:2	Problem Analysis	✓		
PLO:3	Design/Development of Solutions		✓	
PLO:4	Investigation	✓		
PLO:5	Modern Tool Usage		✓	
PLO:6	The Engineering Technologist and Society	✓		
PLO:7	Environment and Sustainability			✓
PLO:8	Ethics			✓
PLO:9	Individual and Teamwork			✓
PLO:10	Communication			✓
PLO:11	Project Management			✓
PLO:12	Lifelong Learning		✓	

Program Learning Outcomes (PL

PLO-1	Engineering Technology Knowledge: An ability to apply knowledge of mathematics, natural science, Engineering Technology fundamentals and Engineering Technology specialization to defined and applied
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	Engineering Technology procedures, processes, systems or methodologies.
PLO-2	Problem Analysis: An ability to Identify, formulate, research literature and analyze broadly defined Engineering Technology problems reaching substantiated conclusions using analytical tools appropriate to the discipline or area of specialization.
PLO-3	Design/Development of Solutions: An ability to design solutions for broadly- defined Engineering Technology problems and contribute to the design of systems, components or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
PLO-4	Investigation: An ability to conduct investigations of broadly-defined problems; locate, search and select relevant data from codes, data bases and literature, design and conduct experiments to provide valid conclusions.
PLO-5	Modern Tool Usage: An ability to Select and apply appropriate techniques, resources, and modern technology and IT tools, including prediction and modelling, to broadly-defined Engineering Technology problems, with an understanding of the limitations.
PLO-6	The Engineering Technologist and Society: An ability to demonstrate understanding of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to Engineering Technology practice and solutions to broadly defined Engineering Technology problems.
PLO-7	Environment and Sustainability: An ability to understand and evaluate the sustainability and impact



	of Engineering Technology work in the solution of broadly defined Engineering Technology problems in societal and environmental contexts.
PLO-8	Ethics: Understand and commit to professional ethics and responsibilities and norms of Engineering Technology practice
PLO-9	Individual and Teamwork: An ability to Function effectively as an individual, and as a member or leader in diverse teams.
PLO-10	Communication: An ability to communicate effectively on broadly defined Engineering Technology activities with the Engineering Technologist community and with society at large, by being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PLO-11	Project Management: An ability to demonstrate knowledge and understanding of Engineering Technology management principles and apply these to one's own work, as a member or leader in a team and to manage projects in multidisciplinary environments.
PLO-12	Lifelong Learning: An ability to recognize the need for and have the ability to engage in independent and life-long learning in specialist Engineering Technologies.

Scheme of Study (B.Sc. Biomedical Engineering Technology)

Program Duration:	8-14 Semesters (4-7 Academic Years)
Total number of Credit Hours	133

Courses Credit Hours	95
Project Credits Hours	06
Supervised Industrial Training Credit Hours	32
Holy Quran with Translation, Tajweed and Tafseer	S/U Basis
Engineering Technology Courses	24
Non-Engineering Technology Courses	17
Total Courses	41

Course Code	Semester I		Cr. Hrs.	Cont. Hrs.
	Subject			
ISL-1112	Islamic Studies / Social Ethics		2	2
BIO-1103	Basic Biology (For Pre-Engineering Students)		2	2
BIO-1103L	Basic Biology Lab (For Pre-Engineering Students)		1	3
MAT-1103	Basic Mathematics (For Pre-Medical Students)		3	3
PHY-1108	Applied Physics		2	2
PHY-1108L	Applied Physics Lab		1	3
BMT-1104	Basic Electrical Technology		2	2
BMT-1104L	Basic Electrical Technology Lab		1	3



BMT-1105L	Technical Drawing Lab	1	3
ICT-1126	Applications of ICT	2	2
ICT-1126L	Applications of ICT Lab	1	3
HQT-1128	Holy Quran with Translation, Tajweed, and Tafseer	S/U	S/U
	Total	16	23 or 25
Semester II			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
ENG-1203	Functional English	3	3
ICP-1229	Ideology and Constitution of Pakistan	2	2
BMT-1203	Human Anatomy & Physiology	3	3
BMT-1203L	Human Anatomy & Physiology Lab	1	3
BMT-1204	Electronic Devices and Circuits	2	2
BMT-1204L	Electronic Devices and Circuits Lab	1	3
BMC-1205	Computer Programming	1	1
BMC-1205L	Computer Programming Lab	1	3
QTR-1206	Calculus and Analytical Geometry	3	3
HQT-1128	Holy Quran with Translation, Tajweed, and Tafseer	S/U	S/U
	Total	17	23

	Semester III		
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
ENG-2307	Expository Writing	3	3
CHE-2302	Biochemistry	2	2
CHE-2302L	Biochemistry Lab	1	3
BMT-2303	Electrical Circuit Analysis	2	2
BMT-2303L	Electrical Circuit Analysis Lab	1	3
BMT-2304	Digital Logic Design	2	2
BMT-2304L	Digital Logic Design Lab	1	3
QTR-2305	Linear Algebra & Differential Equations	3	3
BMT-2306L	Workshop Practice Lab	1	3
BMT-2307	Occupational Health and Safety	1	1
HQT-1128	Holy Quran with Translation, Tajweed, and Tafseer	S/U	S/U
	Total	17	25
Semester IV			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
BMT-2401	Signals and Systems	2	2
BMT-2401L	Signals and Systems Lab	1	3
ETH-2432	Professional Ethics	2	2
BMT-2402	Microprocessors and Microcontrollers	2	2
BMT-2402L	Microprocessors and Microcontrollers Lab	1	3



MAT-2403	Probability and Statistics	2	2
ARA-2401	Arabic	2	2
ETR-2408	Entrepreneurship	2	2
CCE-2430	Civics and Community Engagement	2	2
HQT-1128	Holy Quran with Translation, Tajveed, and Tafseer	S/U	S/U
	Total	16	20
	Semester V		
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
BMT-3501	Biomedical Instrumentation	2	2
BMT-3501L	Biomedical Instrumentation Lab	1	3
MAN-3511	Project Management	3	3
BMT-3503	Biomechanics	2	2
BMT-3503L	Biomechanics Lab	1	3
BMT-3504	Molecular Biology	2	2
BMT-3504L	Molecular Biology Lab	1	3
IDTE-3505	IDTE-I	3	3
BMT-3506	Project-I	3	9
HQT-1128	Holy Quran with Translation, Tajveed, and Tafseer	S/U	S/U
	Total	18	30
	Semester VI		
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
BMT-3601	Biomaterials	2	2

BMT-3601L	Biomaterials Lab	1	3
IDTE-3602	IDTE-II	2	2
IDTE-3602L	IDTE-II Lab	1	3
BMT-3603	Medical Imaging Devices	2	2
BMT-3603L	Medical Imaging Devices Lab	1	3
	Total	9	15
	Semester VII		
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
BMT-4701	Supervised Industrial Training	16	40 Hrs/Week
	Total	16	640
	Semester VIII		
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
BMT-4801	Supervised Industrial Training	16	40 Hrs/Week
	Total	16	640



B.Sc. Information Engineering Technology

A 4-year degree, entitled, BSc Information Engineering Technology provides bright students an opportunity to realize their dream as Technologists by advancing their higher education in technical fields. It is an internationally recognized degree, which is offered in all advanced countries like USA, Canada, Australia, UK, Malaysia, and many more. The NTC is applying for membership of Sydney Accord (<http://www.ieagreements.org/accords/sydney/>). Sydney accord is global accreditation for engineering technologists of the signatory countries, whereas Washington Accord is for global accreditation for engineers.

In order to standardize a 4-year degree in engineering technologies, NTC has given 4-year curricula for BS (Engineering Technology) in Civil, Electrical, Architecture, Biomedical and Information. The following distinct features of the curricula are stated here for information;

1. All programs have three years (6 semesters) of formal classroom education.
2. In both 7th and 8th semesters (fourth year), a student registers 15 credit hours of "Supervised Industrial Training (15 credit hours)" and three credit hours of Project.
3. In the first three years, more emphasis has been put on lab work than theory classes. For example, during any semester of BS (Engineering), a student takes 15-16 credit hours of theory, and 2-3 credit hours of lab courses. However, in BS (Engineering Technology), a student takes 10-11 credit hours of theory and 5-7 credit hours of lab courses.

4. In engineering programs, 1-credit lab means 3 hours of supervised lab work, whereas, in engineering technology curriculum, it is two hours of lab work.
5. The program shall be structured based on Outcome Based Education (OBE) system.

Program Mission

To provide quality education and produce proficient information engineering technologists are well equipped with professional, ethical and social responsibilities using modern technologies and along with passion for innovation and entrepreneurship in industry at national and international level.

University Mission: MUST is committed to all-encompassing growth of its students, besides enabling them to tap the world of knowledge and assume leadership role in the future through a process of continual innovation in education, research, creativity, technological advancement, and entrepreneurship.	✓	✓	✓
Program Mission: To provide quality education and produce proficient information engineering technologists well equipped with professional, ethical, and social responsibilities using modern technologies and along with passion for innovation and entrepreneurship in industry at national and international level.	✓	✓	✓

Program Educational Objectives (PEOs)



PEO 1	To produce quality information engineering technologists who will demonstrate proficiency and skills to address technological challenges in professional environment.
PEO 2	To produce technologists with contemporary communication, presentation and management skills who will play in global sustainability along with socio-economic betterment in the information technology sector.
PEO 3	To produce technologists with interpersonal skills that will foster them to participate for societal as an individual or as team members contributions through communities and life-long learning.

Mapping of PEOs With PLOs

PLOs	Description	PEO:1	PEO:2	PEO:3
PLO:1	Engineering Technology Knowledge	✓		
PLO:2	Problem Analysis	✓		
PLO:3	Design/Development of Solutions	✓		
PLO:4	Investigation	✓		
PLO:5	Modern Tool Usage		✓	
PLO:6	The Engineering Technologist and Society			✓

PLO:7	Environment and Sustainability		✓	
PLO:8	Ethics			✓
PLO:9	Individual and Teamwork			✓
PLO:10	Communication			✓
PLO:11	Project Management		✓	
PLO:12	Lifelong Learning			✓

Program Learning Outcomes (PLOs)

PLO-1	Engineering Technology Knowledge: An ability to apply knowledge of mathematics, natural science, Engineering Technology fundamentals and Engineering Technology specialization to defined and applied Engineering Technology procedures, processes, systems or methodologies.
PLO-2	Problem Analysis: An ability to Identify, formulate, research literature and analyze broadly defined Engineering Technology problems reaching substantiated conclusions using analytical tools appropriate to the discipline or area of specialization.
PLO-3	Design/Development of Solutions: An ability to design solutions for broadly- defined Engineering Technology problems and contribute to the design of systems, components or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.



PLO-4	Investigation: An ability to conduct investigations of broadly-defined problems; locate, search and select relevant data from codes, data bases and literature, design and conduct experiments to provide valid conclusions.
PLO-5	Modern Tool Usage: An ability to Select and apply appropriate techniques, resources, and modern technology and IT tools, including prediction and modelling, to broadly-defined Engineering Technology problems, with an understanding of the limitations.
PLO-6	The Engineering Technologist and Society: An ability to demonstrate understanding of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to Engineering Technology practice and solutions to broadly defined Engineering Technology problems.
PLO-7	Environment and Sustainability: An ability to understand and evaluate the sustainability and impact of Engineering Technology work in the solution of broadly defined Engineering Technology problems in societal and environmental contexts.
PLO-8	Ethics: Understand and commit to professional ethics and responsibilities and norms of Engineering Technology practice
PLO-9	Individual and Teamwork: An ability to Function effectively as an individual, and as a member or leader in diverse teams.

PLO-10	Communication: An ability to communicate effectively on broadly defined Engineering Technology activities with the Engineering Technologist community and with society at large, by being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PLO-11	Project Management: An ability to demonstrate knowledge and understanding of Engineering Technology management principles and apply these to one’s own work, as a member or leader in a team and to manage projects in multidisciplinary environments.
PLO-12	Lifelong Learning: An ability to recognize the need for and have the ability to engage in independent and life-long learning in specialist Engineering Technologies.

Scheme of Study (B.Sc. Information Engineering Technology)

Program Duration:	8-14 Semesters (4-7 Academic Years)
Total number of Credit Hours	133
Courses Credit Hours	95
Project Credits Hours	06
Supervised Industrial Training Credit Hrs	32



Holy Quran with Translation, Tajveed and Tafseer	S/U Basis
Engineering Technology Courses	37
Non-Engineering Technology Courses	96
Total Courses	39

Semester I			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
ISL-1112	Islamic Studies/Social Ethics	2	2
QTR-1101	Applied Mathematics-I	3	3
PHY-1108	Applied Physics	2	2
PHY-1108L	Applied Physics Lab	1	3
IET-1102	Linear Circuit Analysis	2	2
IET-1102L	Linear Circuit Analysis Lab	1	3
ENG-1103	Functional English	3	3
ICT-1126	Applications of Information and Communication Technologies	2	2
ICT-1126L	Applications of Information and Communication Technologies Lab	1	3
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	S/U	S/U

		Total	17	23
Semester II				
Course Code	Subject	Cr. Hrs.	Cont. Hrs.	
ENG-1201	Communication Skills	2	2	
ICP-1229	Ideology and Constitution of Pakistan	2	2	
IET-1202	Programming Fundamentals	2	2	
IET-1202L	Programming Fundamentals Lab	1	3	
IET-1203	Electronics	2	2	
IET-1203L	Electronics Lab	1	3	
QTR-1204	Applied Mathematics -II	3	3	
IET-1205	Database Systems	2	2	
IET-1205L	Database Systems Lab	1	3	
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	S/U	S/U	
Total		16	22	
Semester III				
Course Code	Subject	Cr. Hrs.	Cont. Hrs.	
ENG-2307	Expository Writing	3	3	
IET-2301	Object Oriented Programming	2	2	
IET-2301L	Object Oriented Programming Lab	1	3	
IET-2302	Discrete Structures	3	3	
IET-2303	Digital Logic Design	2	2	
IET-2303L	Digital Logic Design Lab	1	3	



IET-2304	Signals and Systems	2	2
IET-2304L	Signals and Systems Lab	1	3
ETH-2332	Professional Ethics	2	2
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	S/U	S/U
Total		17	23
Semester IV			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
IET-2401	Computer System Architecture	2	2
IET-2402	Data Structures and Algorithms	2	2
IET-2402L	Data Structures and Algorithms Lab	1	3
IET-2403	Digital System Design	2	2
IET-2403L	Digital System Design Lab	1	3
IET-2404	Operating Systems	2	2
IET-2404L	Operating Systems Lab	2	6
IET-2405	Software Requirement and Specification	2	2
ETR-2408	Entrepreneurship	2	2
CCE-2430	Civics and Community Engagement	2	2
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	S/U	S/U
Total		18	26
Semester V			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.

IET-3501	Microprocessors & Microcontrollers	2	2
IET-3501L	Microprocessors & Microcontrollers Lab	2	6
IET-3502	Information Security	2	2
IET-3503	Communication and Networks Technology	2	2
IET-3503L	Communication and Networks Technology Lab	1	3
IET-3504	Mobile Application Development	2	2
IET-3504L	Mobile Application Development Lab	1	3
ARA-3501	Arabic	2	2
IET-3506	Project-I	3	9
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	S/U	S/U
Total		17	31
Semester VI			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
MAN-3601	Software Project Management	2	2
IET-3602	Software Testing	2	2
IET-3603	Artificial Intelligence	2	2
IET-3603L	Artificial Intelligence Lab	1	3
IET-3604	Cyber Security	2	2
IET-3604L	Cyber Security Lab	1	3
IET-3605	Digital Image Processing	2	2



IET-3605L	Digital Image Processing Lab	1	3
IET-3606	Project-II	3	9
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	S/U	S/U
Total		16	28
Semester VII			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
IET-4701	Supervised Industrial Training	16	40 Hrs/Week
Total		16	640
Semester VIII			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
IET-4801	Supervised Industrial Training	16	40Hrs/Week
Total		16	640

B.Sc. Architectural Engineering Technology

A 4-year degree, entitled BSc Architecture Engineering Technology provides bright students an opportunity to realize their dream as Technologists by advancing their higher education in technical fields. It is an internationally recognized degree, which is offered in all advanced countries like USA, Canada, Australia, UK, Malaysia, and many more. The NTC is applying for membership of Sydney Accord (<http://www.ieagreements.org/accords/sydney/>). Sydney accord is global accreditation for engineering technologists of the signatory countries, whereas Washington Accord is for global accreditation for engineers.

In order to standardize a 4-year degree in engineering technologies, NTC has given 4-year curricula for BS (Engineering Technology) in Civil, Electrical, Architecture, Biomedical and Information. The following distinct features of the curricula are stated here for information;

1. All programs have three years (6 semesters) of formal classroom education.
2. In both 7th and 8th semesters (fourth year), a student registers 15 credit hours of “Supervised Industrial Training (15 credit hours)” and three credit hours of Project.
3. In the first three years, more emphasis has been put on lab work than theory classes. For example, during any semester of BS (Engineering), a student takes 15-16 credit hours of theory, and 2-3 credit hours of lab courses. However, in BS (Engineering Technology), a student takes 10-11 credit hours of theory and 5-7 credit hours of lab courses.



4. In engineering programs, 1-credit lab means 3 hours of supervised lab work, whereas, in engineering technology curriculum, it is two hours of lab work.
5. The program shall be structured based on Outcome Based Education (OBE) system.

Program Mission

To provide quality education and produce competent Architecture Engineering technologists conscious of professional, ethical, and social responsibilities for productive careers in industry at a national and international level.

Program Educational Objectives (PEOs)

PEO 1	Graduates will be able to develop practical, sustainable, and creative solutions to architectural engineering problems.
PEO 2	Graduates will possess the ability to lead multifunctional teams effectively, demonstrate entrepreneurship, and maintain a positive reputation through exceptional communication skills and professional ethics.
PEO 3	Graduates will continuously acquire and adapt to emerging technologies, methodologies, and techniques throughout their professional career, and actively seek professional development and advanced education to contribute to the advancement of society.

Mapping of PEOs with PLOs

PLOs	Description	PEO:1	PEO:2	PEO:3
PLO:1	Engineering Technology Knowledge	✓		

PLO:2	Problem Analysis	✓		
PLO:3	Design/Development of Solutions	✓		
PLO:4	Investigation	✓		
PLO:5	Modern Tool Usage			✓
PLO:6	The Engineering Technologist and Society			✓
PLO:7	Environment and Sustainability			✓
PLO:8	Ethics		✓	
PLO:9	Individual and Teamwork		✓	
PLO:10	Communication		✓	
PLO:11	Project Management		✓	
PLO:12	Lifelong Learning			✓

Program Learning Outcomes (PLOs)

PLO-1	Engineering Technology Knowledge: An ability to apply knowledge of mathematics, natural science, Engineering Technology fundamentals and Engineering Technology specialization to defined and applied Engineering Technology procedures, processes, systems or methodologies.
PLO-2	Problem Analysis: An ability to Identify, formulate, research literature and analyze broadly defined Engineering Technology problems reaching substantiated conclusions



	using analytical tools appropriate to the discipline or area of specialization.
PLO-3	Design/Development of Solutions: An ability to design solutions for broadly- defined Engineering Technology problems and contribute to the design of systems, components or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
PLO-4	Investigation: An ability to conduct investigations of broadly-defined problems; locate, search and select relevant data from codes, data bases and literature, design and conduct experiments to provide valid conclusions.
PLO-5	Modern Tool Usage: An ability to Select and apply appropriate techniques, resources, and modern technology and IT tools, including prediction and modelling, to broadly-defined Engineering Technology problems, with an understanding of the limitations.
PLO-6	The Engineering Technologist and Society: An ability to demonstrate understanding of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to Engineering Technology practice and solutions to broadly defined Engineering Technology problems.

PLO-7	Environment and Sustainability: An ability to understand and evaluate the sustainability and impact of Engineering Technology work in the solution of broadly defined Engineering Technology problems in societal and environmental contexts.
PLO-8	Ethics: Understand and commit to professional ethics and responsibilities and norms of Engineering Technology practice
PLO-9	Individual and Teamwork: An ability to Function effectively as an individual, and as a member or leader in diverse teams.
PLO-10	Communication: An ability to communicate effectively on broadly defined Engineering Technology activities with the Engineering Technologist community and with society at large, by being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PLO-11	Project Management: An ability to demonstrate knowledge and understanding of Engineering Technology management principles and apply these to one’s own work, as a member or leader in a team and to manage projects in multidisciplinary environments.
PLO-12	Lifelong Learning: An ability to recognize the need for and have the ability to engage in



	independent and life-long learning in specialist Engineering Technologies.
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Scheme of Study (B.Sc. Architectural Engineering Technology)

Program Duration:	8-14 Semesters
Courses:	97 Credit Hours
Project:	06 Credit Hours
Supervised Industrial Training:	32 Credit Hours
Total:	135 Credit Hours

Semester I			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
AT-111	Introduction to Architecture and Town Planning	2	2
AT-112	Computer Applications	2	2
AT-112L	Computer Applications Lab	1	3
HS-113	Islamic Studies	2	2
GS-114	Applied Mathematics-I	3	3
AT-115	Engineering Mechanics	2	2
AT-115L	Engineering Mechanics Lab	1	3
AT-116	Engineering Drawing	1	1
AT-116L	Engineering Drawing Lab	2	6
	Total	16	23
Semester II			

Course Code	Subject	Cr. Hrs.	Cont. Hrs.
AT-121	Building Construction Technology-I	1	1
AT-121L	Building Construction Technology-I Lab	2	6
AT-122L	Basics of Design Lab	2	6
HS-123	Pakistan Studies	2	2
AT-124	Technical Drawing	1	1
AT-124L	Technical Drawing Lab	2	6
GS-125	Applied Mathematics-II	3	3
AT-126	History of Architecture	2	2
AT-127	Elementary Surveying	1	1
AT-127L	Elementary Surveying Lab	2	6
	Total	18	32
Semester III			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
AT-231	Fluid Mechanics	1	1
AT-231L	Fluid Mechanics Lab	1	3
AT-232	Architectural Design	1	1
AT-232L	Architectural Design Lab	2	6
AT-233L	Computer Aided Design-I Lab	2	6
AT-234	Strength of Materials	2	2
AT-234L	Strength of Materials Lab	1	3
AT-235	Building systems & services-I	2	2
AT-235L	Building systems & Services-I Lab	1	3

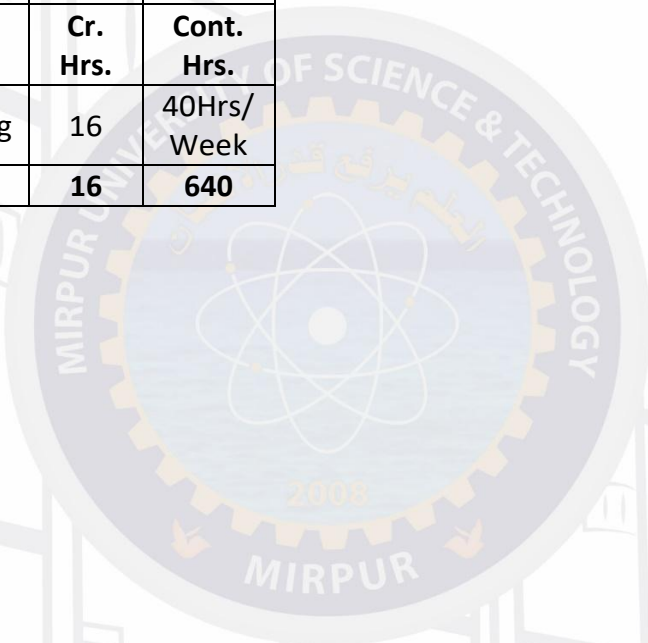


AT-236	Theory of Structures	3	3	
GS-237	Occupational Health and Safety Management	2	2	
Total		18	32	
Semester IV				
Course Code	Subject	Cr. Hrs.	Cont. Hrs.	
HS-241	Professional Ethics	2	2	
AT-242	Building Construction Technology-II	2	2	
AT-242L	Building Construction Technology-II Lab	1	3	
AT-243	Sustainability in Buildings	2	2	
AT-243L	Sustainability in Buildings Lab	1	3	
AT-244	Building systems & services-II	2	2	
AT-244L	Building systems & services-II Lab	1	3	
AT-245	Computer Aided Design-II	1	1	
AT-245L	Computer Aided Design-II Lab	2	6	
AT-246	Concrete Technology	2	2	
AT-246L	Concrete Technology Lab	2	6	
Total		18	32	
Semester V				
Sr. No	Course Code	Subject	Cr. Hrs.	Cont. Hrs.
1	AT-351	Construction contracts, codes & Regulations	3	3
2	AT-352	Technological Building Analysis	2	2

3	AT-352L	Technological Building Analysis Lab	1	3
4	AT-353 L	Building Information Modelling Lab	3	9
5	GS-354	Project Management	3	3
6	HS-355	Communication Skills	2	2
7	AT-356	Quantity Surveying & Estimation	1	1
Total			17	29
Semester VI				
Course Code	Subject		Cr. Hrs.	Cont. Hrs.
AT-361	Building Conservation & Rehabilitation		2	2
AT-361L	Building Conservation & Rehabilitation Lab		1	3
AT-362	Geotechnical & Foundation Engineering		2	2
AT-362L	Geotechnical & Foundation Engineering Lab		1	3
AT-363	Steel structures		2	2
AT-364	Architectural Technologies Research Project		6	18
AT-365	Technical Report Writing		2	2
Total			16	32
Semester VII				



Course Code	Subject	Cr. Hrs.	Cont. Hrs.
AT-471	Supervised Industrial Training	16	40Hrs/Week
	Total	16	640
Semester VIII			
Course Code	Subject	Cr. Hrs.	Cont. Hrs.
AT-481	Supervised Industrial Training	16	40Hrs/Week
	Total	16	640





Alumni Comments

Being a student of Department of Mirpur Institute of Technology (MIT). It was pleased to join MUST. It was my best decisions to take admission in Electrical Engineering Technology. I feel proud It makes me expert in my field. My personality developed and groomed up. The Labs are up-to date and the equipment's available is the modern of its field. The interaction with faculty has given me tremendous confidence. The faculty has a good reputation in term of good work. The university provides financial support and intensives to talented and needy students in the form of scholarship. The Electrical Engineering Technology is curving me for field work and practical life. MUST is playing a vital role in polishing my hidden skills and boosting self-confidence. The time I have spent here is enjoyable and knowledge full experience of my life.



**Muhammad Awais
Asghar**
**MS Electrical
Technology**
Session (2021-23)

My university experiences thus far have been amazing. I have learned and experienced so many new things in such a short period of time, and it has gone by so fast. There is a great focus on practical work and all the necessary equipment in the labs are in abundance and upgraded regularly. The faculty is very competent. It is real high ground where quality technologist is produced and are serving the nation.



Danyal Zamir
**Electrical Engineering
Technology**
Session (2015-19)



MS Electrical Technology

MUST is the first Public University of Pakistan who offers MS in Electrical Technology in department of MIT-MUST. This program will involve teaching high level approaches of industry, information security and practical interaction with industry. It will ensure that the students will be able to conduct research and do practical work alone or in a team and maintain life-long learning after completing this program. The community by producing quality Electrical Technologists capable of addressing solutions to the challenging problems being faced at National/International level. The technologists will play a pivotal role to the development sector of the country owing to its multidisciplinary in nature and wide scope. In addition, the program is benchmarked with international universities across the world such as USA, Canada, Australia, UK, Malaysia, India and many more.

Program Objectives:

1. Help graduates to develop a more profound knowledge base of the subject at and advance level.
2. Equip graduates with the necessary tools to undergo simulation studies, research, optimize engineering designs and solutions.
3. Assist and motivate graduates to become leaders, entrepreneurs, consultants, and successful engineer technologist.
4. Make graduates understand the importance of team building, effective communication skills, and function efficiently as an individual and as a part of a team.

Admission Criteria

1. Qualification

- Candidate heaving 16years of education in B.Sc. (Engineering Technology)/B.Sc. (Technology 4 Years) degree program and duly registered National Technology Council (NTC) Pakistan.

2. Grades

- Semester Based Examination
- CGPA
- 2.7 out of 4.0
- 3.0 out of 5.0
- Percentage
- 65%
- Annual system
- Minimum Second Division
- No 3rd Division is allowed.
- The candidates must have passed the GAT/NTS General test, or any other test as required by the university.

Duration and Scheme of Study

Duration	4 -8 Semesters
Core Courses	06 Credit Hours
Elective Courses	18 Credit Hours
Master Thesis	06 Credit Hours
Total	30 Credit Hours

1st Semester	Course Title	Credit Hours
	Compulsory Course	03
	Core-I	03
	Elective-I	03
	Elective-II	03
	Total	12



2nd Semester	Core-II	03
	Elective-III	03
	Elective-IV	03
	Elective-V	03
	Total	12
3rd Semester	Thesis	06
	Total	06
4th Semester	Thesis	06

Compulsory Courses

Course Code	Subject	Cr. Hrs.
MET-5201	Research Methodology and Professional Ethics	03

Core Courses

Course Code	Subject	Cr. Hrs.
MET-5202	Renewable Energy Sources	03
MET-5203	Industrial Instrumentation and Control	03
MET-5204	Engineering Procurement Commissioning	03
MET-5205	Energy Management	03
MET-5206	Industrial Safety	03
MET-5207	Electrical Transients in Power System	03
MET-5208	Power System Troubleshooting	03
MET-5209	Digital Image Processing	03

MET-5210	Advanced Topics in Electromagnetics	03
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Elective Courses

Course Code	Subject	Cr. Hrs.
MET-6201	Advanced Industrial and Power Electronics	03
MET-6202	Advanced High Voltage Technology	03
MET-6203	Advanced Image Processing and Computer Vision Techniques	03
MET-6204	Machine Vision and Recognitions Technology	03
MET-6205	Artificial Intelligence	03
MET-6206	Cellular and Mobile Communications	03
MET-6207	Advanced Digital Communication Systems	03
MET-6208	Power Electronics Convertors	03
MET-6209	Energy Informatics	03
MET-6210	Big Data Analytic Techniques	03
MET-6211	Advanced Power Systems	03
MET-6212	Power System Economics	03
MET-6213	Power System Restructuring	03
MET-6214	Advanced Topic in Power System	03
MET-6215	Power System Planning	03
MET-6216	Solar Power Generation	03



MET-6217	Power System Troubleshooting	03
MET-6218	Optoelectronic Devices	03
MET-6219	Switchgear and Power System Protection	03
MET-6220	Advanced Power System Distribution	03
MET-6221	Advanced Power System Transmission	03
MET-6222	Advanced Electronics	03
MET-6223	Advanced Electrical Machines	03
MET-6224	Industrial Automation	03
MET-6225	Energy Storage System	03
MET-6226	Power System Operation and Control	03

MS Civil Technology

MUST is the first Public University of Pakistan who offers MS Civil Technology in department of MIT-MUST. This program will involve teaching high level approaches of industry, information security and practical interaction with industry. It will ensure that the students will be able to conduct research and do practical work alone or in a team and maintain life-long learning after completing this program. The community produces quality Civil Technologists capable of addressing solutions to the challenging problems being faced at National/International level.

Technologists will play a pivotal role in the development sector of the country owing to its multidisciplinary nature and wide scope. In addition, the program is benchmarked with international universities across the world such as USA, Canada, Australia, UK, Malaysia, India and many more.

Program Objectives

1. Help graduates to develop a more profound knowledge base of the subject at an advanced level.
2. Equip graduates with the necessary tools to undergo simulation studies, research, optimize engineering designs and solutions.
3. Assist and motivate graduates to become leaders, entrepreneurs, consultants, and successful engineer technologist.
4. Make graduates understand the importance of team building, effective communication skills, and function efficiently as an individual and as a part of a team.

Duration

Duration	4 Semester/2 Years
Core Courses	15 Credit Hours
Elective Courses	09 Credit Hours
Thesis	06 Credit Hours
Total	30 Credit Hours

Course Code	Title	Credit Hrs/Week	Pre req
COMPULSORY COURSES			
CET-6001	Computer Aided Analysis and Designs of Structures	3	-
CET-6002	Construction Technology and Management	3	-



CET-6003	Design of Hydraulic Structures	3	-
CET-6004	Highway Planning & Design	3	-
CET-6000	Research Methodology	3	-
CET-7002	Research Thesis	6	-

ELECTIVE COURSES			
GCT-5101	Geotechnical Modelling	3	-
CTS-6101	Advanced Steel Structures	3	-
CTS-6102	Advanced Strength of Materials	3	-
CTS-6103	Advanced Reinforced Concrete	3	-
CTS-6100	Dam Engineering Technology	3	-
GCT-6102	Foundation Engineering Technology	3	-
GCT-6103	Bridge Engineering Technology	3	-
CTT-5000	Railway Technology	3	-
CTT-6100	Advanced Traffic Engineering and Management	3	-
CTM-6101	Construction Projects Scheduling and Control	3	-
CTM-6102	Safety Management in Construction Technology	3	-
CTW-5101	Hydropower Development and Technology	3	-
CTE-6111	Environmental Impact Assessment	3	-
CTD-6001	Disaster Risk Assessment and Evaluation	3	-
CTT-6112	Advance Testing's in Civil Technology	3	-

Semester wise Breakdown			
Semester I			
Course Code	Type	Subject	Cr. Hrs.
Subject I	Compulsory	Offered from core courses list	3
Subject II	Compulsory	Offered from Elective courses list	3
Subject III	Compulsory	Offered from core courses list	3
Semester II			
Subject IV	Compulsory	Offered from core courses list	3
Subject V	Compulsory	Offered from core courses list	3
Subject VI	Compulsory	Offered from elective courses list	3
Semester III-VIII			
Subject VII	Compulsory	Offered from core courses list	3
Subject VIII	Compulsory	Offered from elective courses list	3
CET-7002	Compulsory	Thesis	6
Note: Semester Extension from 5 th -8 th semester will be required from AS&RB.			





FACULTY OF

**NATURAL AND APPLIED
SCIENCES**



Dean Faculty of Natural & Applied Sciences:

Dr. Rashida Hussain

Tel: +92-5827-961054

E-mail: dean.sciences@must.edu.pk

Message from Dean:

Welcome to the Faculty of Natural and Applied Science (FNAAS) at the Mirpur University of Science and Technology (MUST), Mirpur. It is my privilege to serve as Dean for this prestigious FNAAS. The MUST is one of the leading universities to develop career and to make its graduates a precious asset of the country. The key to success of the FNAAS lies in the aspirations of our students, the hard work of our outstanding faculty members and the steady support of the MUST leadership. Science is one of the principle ways in which we as a society understand the world around us and solve the problems that beset us and to create a secure and safe society. Scientific endeavors provide us the ability to understand the universe, global ecosystem, evolution and diversity of life, feeding and combatting diseases. The first goal of the FNAAS is to acquire knowledge and the second to prepare graduates for a quality of adult life in the global village as responsible citizens. Therefore, the expectations upon and responsibilities given to FNAAS from our society are held by us to be paramount.

The FNAAS consists of seven academic Departments: Biotechnology, Botany, Chemistry, Computer Science and Information Technology, Environmental Sciences, Mathematics, Physics, Statistics, and Zoology. Faculty annually admits about 900 students and offers the BS (4-year), M.Phil. (2-year) and Ph.D. degree programmes. We are constantly revamping our curriculum to reflect the broadening spectrum of science to meet the needs of the day. We believe that the best learning often takes place outside the lecture theatre. Our students have many opportunities for enriching their experiences such as undergraduate research, group discussions, field trips, internships, seminars, workshops and conferences. They enjoy a congenial atmosphere with one another along with our experienced faculty who have a missionary zeal for producing an excellent academic atmosphere. The overarching objective of the FNAAS is to produce professionals who are knowledgeable and technically-savvy in their respective areas of expertise and who are not afraid to tackle challenging problems. The faculty take pride in the high quality of our teaching and research. We are continuing to develop our strategic plan for future



and identified four key themes: enabling research of the highest caliber in the natural, physical and biological sciences; elevating the quality of our undergraduate and graduate educational experiences to the level of our research; and increasing our impact on the society. Our faculty is focused in the research areas such as Biotechnology, Molecular Genetics, Genomics, Stem Cell Technology, Biodiversity and Conservation, Material and Chemical Science, Nano Science, Solid State and Nuclear Physics, Mathematical Modeling, Statistics, Artificial Intelligence and Computational Science. This research training at the FNAAS will help prepare graduates to become an articulate communicator, a careful thinker, a person who is concerned with good health and healthy interpersonal relationships that cross cultural boundaries. I invite you to explore the exciting programs and become part of tremendous growth which is expected to continue even at a faster pace. We will help you equip yourself with latest technologies and skills to face the challenges and create the world of tomorrow. Our goal is to contribute to the sustainable and peaceful development of human society through the research and educational activities of science. We always consider how we can foster dreams and hopes in the young people who are the future of Pakistan.



DEPARTMENT OF Biotechnology

Vision

Our vision is to produce high caliber Biotechnology professionals with interdisciplinary approaches to fulfill the needs of country's economic, industrial, agricultural, health, medicine, energy and environmental sectors.

Degree Programs Offered

BS Biotechnology
M.Phil. Biotechnology
Ph.D. Biotechnology





Chairperson:

Dr. Muhammad Altaf Hussain

Tel. : +92-5827-961999

E-mail: chairperson.biotech@must.edu.pk

Message from Chairperson:

Welcome to the Department of Biotechnology at Mirpur University of Science and Technology (MUST), Mirpur where we are committed to advancing the frontiers of knowledge and fostering innovation in the field of Biotechnology. Our Department offers a dynamic and supportive environment that nurtures academic excellence, cutting-edge research, and a deep commitment to societal development.

Biotechnology is a rapidly evolving field with the potential to address some of the most pressing challenges of our time, from healthcare and agriculture to environmental sustainability. At MUST, our curriculum is designed to provide students with a strong foundation in the theoretical and practical aspects of Biotechnology, preparing them for successful careers in academia, industry, and beyond.

Our faculty members are experts in their respective fields, dedicated to mentoring students and conducting research that contributes to scientific advancements. We encourage our students to engage in research projects, internships, and collaborations that

enhance their learning experience and prepare them for the challenges of the professional world.

In addition to academic and research excellence, our Department places a strong emphasis on ethics, integrity, and social responsibility. We strive to create a learning environment that is inclusive, diverse, and supportive, where every student can thrive and contribute to the global biotechnology community.

We invite you to explore the exciting opportunities that await you in the Department of Biotechnology a MUST. Together, we can make a difference in the world through the power of biotechnology.



Faculty Members of Biotechnology



Faculty Members

Name: Dr. Muhammad Altaf Hussain

Designation: Associate Professor

Qualification: Ph.D.

Research Interest: Plant genetics & Metabolomics

Email: altaf.bot@must.edu.pk



Name: Dr. Muhammad Tariq

Designation: Assistant Professor (TTS)

Qualification: Ph.D.

Research Interest: Stem Cells & Regenerative Medicines

Email: tariq.awan@must.edu.pk



Name: Dr. Raja Tahir Mahmood

Designation: Assistant Professor

Qualification: Ph.D.

Research Interest: Industrial & Environmental Biotechnology, Enzymology

Email: raja.tahir@must.edu.pk



Name: Dr. Imran Ali

Designation: Associate Professor

Qualification: Ph.D.

Research Interest: Industrial Biotechnology, Protein Engineering

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Name: Dr. Abdul Jabbar

Designation: Assistant Professor

Qualification: Ph.D.

Research Interest: Structural Biology

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Name: Dr. Muhammad Sufian

Designation: Assistant Professor

Qualification: Ph.D.

Research Interest: Bioinformatics

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Name: Dr. Zeeshan Shamim

Designation: Assistant Professor

Qualification: Ph.D.

Research Interest: Plant Biotechnology,
Tissue Culture

Email: zeeshanshamim@must.edu.pk



Name: Dr. Waheeda Mushtaq

Designation: Lecturer

Qualification: Ph.D.

Research Interest: Pharmacology,
Pharmacognosy

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Name: Ms. Binish Javaid

Designation: Lecturer

Qualification: M.Phil.

Research Interest: Industrial Biotechnology

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Name: Dr. Neelam Rashid

Designation: Assistant Professor

Qualification: Ph.D.

Research Interest: Nutraceuticals,
Renewable energy

Email:

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Name: Ms. Saadia Mehboob

Designation: Lecturer

Qualification: M.Phil.

Research Interest: Plant
Biotechnology

Email:

saadia.mehboob@must.edu.pk



Name: Ms. Rabia Yasin

Designation: Lecturer

Qualification: M.Phil.

Research Interest: Industrial
Biotechnology

Email: rabia.yasin@must.edu.pk





Introduction

The Department of Biotechnology at Mirpur University of Science and Technology (MUST), Mirpur was established in 2010 under the Faculty of Natural and Applied Sciences. Initially, the Department launched Ph.D. and M.Phil. Degree programs in Biotechnology, and in 2013, the BS Biotechnology program was introduced. Since its inception, the Department has made significant contributions to the training and development of students at the undergraduate and postgraduate levels. To date, the Department has proudly graduated 5 Ph.D. scholars, over 200 M.Phil. graduates, and more than 400 BS students.

The Department is equipped with three research laboratories, furnished with both essential and advanced equipment to support practical undergraduate education and postgraduate research. All classrooms are well-furnished and equipped with multimedia facilities, enabling effective lecture delivery, student presentations, and thesis defenses. In addition to academic excellence, the Department places a strong emphasis on the personality development of its students and scholars.

Most of our faculty members hold Ph.D. degrees, with specializations across the major areas of Biotechnology. Research is a core component of our academic programs, with faculty actively engaged in fields such as Industrial and Environmental Biotechnology, Agricultural and Plant Biotechnology, Health and Animal Biotechnology, and Bioinformatics.

To support academic and research activities, the Department boasts a dedicated library, complemented by two main university libraries, collectively housing over 700 relevant books.

Mission

The Department of Biotechnology is committed, “To produce Biotechnologists compatible to international standards, able to apply basic science principles to solve problems using Biotechnology to boost up country’s economics.”

Scheme of Studies BS Biotechnology

Content		Description
1	Title of the Degree	Bachelor of Science in Biotechnology
2	Eligibility Criteria	F.Sc. (Pre-Medical) with at least 50% marks. No D-Grade in academic record. Entry Test or any other requirement as per University Policy/ Guidelines
3	Duration of the Program	8-14 Semesters
4	Credits(Credit Hours)	Course Work : 120 Credits Hours
		Internship: 03 Credits Hours
		Capstone Project: 03 Credits Hours
		Seminar: 01 Credit Hour
		Total Credits: 127



SEMESTER ONE		
Code	Subject	Credits
BIOT-1101	Cell Biology (M)	2+1
SGC-1129	The Science of Global Challenges (GE)	3+0
ARA-1101	Arabic (GE)	2+0
CHEM-1104	Inorganic Chemistry (ID)	2+1
ENG-1107	Functional English (GE)	3+0
ISL-1112	Islamic Studies (GE)	2+0
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	0+0
	Total	16

SEMESTER TWO		
Code	Subject	Credits
BIOT-1201	Biochemistry-I (M)	2+1
BIOT-1202	Ecology, Biodiversity & Evolution	2+1
CHEM-1204	Organic Chemistry (ID)	2+1
ENG-1207	Expository Writing (GE)	3+0
ICP-1227	Ideology and Constitution of Pakistan	2+0
SOC-1221	Introduction to Sociology (GE) OR Psychology (PSY-1219)	2+0
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	0+0
	Total	16

SEMESTER THREE		
Code	Subject	Credits
BIOT-2301	Biochemistry-II (M)	2+1

BIOT-2302	Introduction to Biotechnology (M)	3+0
BIOT-2303	Microbiology (M)	2+1
ETRE-2308	Entrepreneurship (GE)	2+0
ICT-2326	Applications of Information and Communication Technologies	2+1
QTR-2324	Quantitative Reasoning-I (GE)	3+0
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	0+0
	Total	17

SEMESTER FOUR		
Code	Subject	Credits
BIOT-2401	Principle of Genetics (M)	3+0
BIOT-2402	Molecular Biology (M)	3+0
ZOO- 2403	Zoology-I (Animal Diversity-I)	2+1
BOT-2404	Botany-I (Diversity of Plants)	3+0
QTR-2424	Quantitative Reasoning-II (GE)	3+0
CCE-2425	Civics and Community Engagement	2+0
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	0+0
	Total	17

SEMESTER FIVE		
Code	Subject	Credits
BIOT-3501	Introduction to Immunology	3+0
BIOT-3502	Methods in Molecular Biology	1+2
BIOT-3503	Principles of Biochemical Engineering	2+1
ZOO-3504	Zoology-II (Animal Diversity-II)	3+0



BOT-3505	Botany-II (Plant Systematics, Anatomy and Development)	3+0
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	0+0
	Total	15
SEMESTER SIX		
Code	Subject	Credits
BIOT-3601	Microbial Biotechnology	2+1
BIOT-3602	Introduction to Bioinformatics	1+2
BIOT-3603	Food Biotechnology	3+0
BIOT-3604	Research Planning and Scientific Writing	3+0
BIOT-360-	Elective-I	3+0
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	0+0
	Total	15
SEMESTER SEVEN		
Code	Subject	Credits
BIOT-4701	Health Biotechnology	3+0
BIOT-4702	Environmental Biotechnology	2+1
BIOT-4703	Genomics and Proteomics	3+0
BIOT-4704	Internship	0+3
BIOT-470-	Elective-II	3+0
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	0+0
	Total	15
SEMESTER EIGHT		

Code	Subject	Credits
BIOT- 4801	Seminar-I	1+0
BIOT- 4802	Industrial Biotechnology	2+1
BIOT- 4803	Biosafety and Bioethics	3+0
BIOT- 4804	Capstone Project	0+3
BIOT-48--	Elective-III	3+0
BIOT-48--	Elective-IV	3+0
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	0+0
	Total	16

List of Elective Courses		
Code	Name of Subject	Credits
BIOT-3605	Analytical Chemistry and Instrumentation	2+1
BIOT-3606	Introduction to Cell and Tissue Culture	2+1
BIOT-3607	Fungal Biotechnology	2+1
BIOT-3608	Biofuels and Biorefineries	3+0
BIOT-3609	Hospital Waste Management	2+1
BIOT-3610	Fundamentals of Enzymology	2+1
BIOT-4705	Agriculture Biotechnology	3+0
BIOT-4706	Animal Biotechnology	3+0
BIOT-4707	Water and Waste water Treatment	2+1
BIOT-4708	Introduction to Nanobiotechnology	3+0



BIOT-4709	Molecular Diagnostics	3+0
BIOT-4805	Marine Biotechnology	3+0
BIOT-4806	Radiobiology	2+1
BIOT-4807	Pharmaceutical Biotechnology	3+0
BIOT-4808	Biosensor	3+0
BIOT-4809	Fermentation Biotechnology	2+1
BIOT-4810	Introduction to Virology	3+0
BIOT-4811	Recent Trends in Biotechnology	3+0
BIOT-4812	Cellular Signaling	3+0
BIOT-4813	Genetic Resources & Conservation	3+0

M.Phil. Biotechnology

Entry Requirement for M. Phil.:

- Second division or CGPA 2.5/4.0 in BS/ M.Sc. life sciences and related subjects, with no third division in the academic career.
- GAT General conducted by NTS with minimum 50% cumulative score.
- An entry Test conducted by the University.

Program Details

Duration:	4-6 Semesters
Courses:	24 Credit Hours
Thesis:	06 Credit Hours
Seminar:	01 Credit Hours
Total:	31 Credit Hours

List of Courses for M.Phil. Biotechnology

Course code	Course Title	Credit Hours
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BIOT-701	Advances in Microbial Biotechnology	3(3+0)
BIOT-702	Recombinant DNA Technology	3(3+0)
BIOT-703	Advances in Biochemistry	3(3+0)
BIOT-704	Advances in Molecular Genetics	3(3+0)
BIOT-705	Techniques in Biotechnology	3(0+3)
BIOT-706	Advances in Immunology	3(3+0)
BIOT-707	Bio-safety and Bioethics, applications	2(2+0)
BIOT-708	Biostatistics	3(3+0)
BIOT-709	Advances in Genomics	3(3+0)
BIOT-710	Advances in Bioinformatics	3(0+3)
BIOT-711	Advances in Nanobiotechnology	3(3+0)
BIOT-712	Advances in Plant Biotechnology	3(3+0)
BIOT-713	Advances in Animal Biotechnology	3(3+0)
BIOT-714	Advances in Enzyme Biotechnology	3(3+0)
BIOT-715	Medical Biotechnology	3(3+0)
BIOT-716	Forensic Biotechnology	3(3+0)
BIOT-717	Advances in Industrial Biotechnology	3(3+0)
BIOT-718	Advances in Environmental Biotechnology	3(3+0)
BIOT-719	Human Biotechnology	3(3+0)



BIOT-720	Advances in Pharmaceutical Biotechnology	3(3+0)
BIOT-721	Advances in Stem Cell Technology	3(3+0)
BIOT-722	Advances in Tissue Culture	3(3+0)
BIOT-723	Applications of Biotechnology	3(3+0)
BIOT-724	Business Entrepreneurship	3(3+0)
BIOT-725	Medical Microbiology	3(3+0)
BIOT-798	Seminar	1(1+0)
BIOT-799	Thesis	6(0+6)

Ph.D. Biotechnology

Entry Requirement for Ph.D.:

- First division or CGPA 3.0/4.0 in M.Phil. life sciences and related subjects, with no third division in the academic career.
- GRE International/ GAT Subject test with a minimum percentile score of 60%.





Program Details	
Duration:	6 -16 Semester
Course Work:	18 Credit Hours
Seminar:	02 Credit Hours
Thesis:	50 Credit Hours
Total:	70 Credit Hours

List of Courses for Ph.D. Biotechnology		
Course Code	Course Title	Credit Hr.

BIOT-851	Integrated Biological Resources Management	3(3+0)
BIOT-852	Advances in Biotechnology	3(3+0)
BIOT-853	Project Planning, Monitoring and Evaluation	3(3+0)
BIOT-854	DNA-Protein Modules	3(3+0)
BIOT-855	Cloning Modules	3(3+0)
BIOT-856	Advances in Microbial Biotechnology	3(3+0)
BIOT-857	Recombinant DNA Technology	3(3+0)
BIOT-858	Advances in Molecular Genetics	3(3+0)
BIOT-859	Advances in Immunology	3(3+0)
BIOT-860	Advances in Genomics	3(3+0)
BIOT-861	Advances in Bioinformatics	3(0+3)
BIOT-862	Advances in Plant Biotechnology	3(3+0)
BIOT-863	Advances in Animal Biotechnology	3(3+0)
BIOT-864	Advances in Enzyme Biotechnology	3(3+0)
BIOT-865	Human Biotechnology	3(3+0)
BIOT-866	Advances in Stem Cell Technology	3(3+0)
BIOT-867	Advances in Tissue Culture	3(3+0)
BIOT-868	Applications of Biotechnology	3(3+0)
BIOT-869	Business Entrepreneurship	3(3+0)
BIOT-896	Comprehensive (Written & Oral)	0(0+0)
BIOT-897	Seminar-I	1(1+0)
BIOT-898	Seminar-II	1(1+0)
BIOT-899	Thesis Ph.D.	50(0+50)



ALUMNI MESSAGES

	<p>Muhammad Ikram Qummar Divisional Director, Health Services Mzbd Div., MNHS, R&C, Govt. of Pakistan BS 2015-19</p>	<p>Department of Biotechnology, MUST has been growing well over the period of time. With limited resources it has been performing exceptionally well in academia and research. The faculty is, Masha Allah, cooperative specially in research and academics with limited opportunities available. My journey during BS in Biotechnology at Mirpur University of Science and Technology was pretty much a mixture of growing, learning and understanding what life actually is. That is I must say, MUST is more about. It teaches you lifelong hard and strong lessons. You must always be ready to accept changes and learn.</p>
	<p>Muhammad Amjad Graduate Research Assistant, Keimyung University, Daegu, South Korea BS 2017-21</p>	<p>It was my foremost priority to establish a future in biotechnology, and I am blessed to have been taught by the faculty of the Department of Biotechnology at MUST. Moreover, it turned out to be one of the most captivating experiences of my educational career. The well-trained lecturers delivered highly stimulating lectures, and the way they clarified concepts is worth mentioning. Fascinating case studies, linked with ongoing research, and the exploration of novel ideas were particularly inspiring. Detailed guidance at every step and exposure to contemporary opportunities greatly helped me in pursuing my dreams.</p>
	<p>Fozia Ibrahim Graduate Researcher Chiang Mai, University Thailand BS 2018-22</p>	<p>I hope this message finds you well. As an alumnus of Biotechnology MUST, I am grateful for the faculty's commitment to academic excellence and the profound impact it had on my personal and professional development. Their dedication to fostering critical thinking greatly enriched my experience. I am proud to be a graduate and confident in MUST's continued success and contribution to shaping future leaders.</p>
	<p>Maleeha Masood Admission Officer Times Consultants BS 2015-19 M.Phil. 2019-21</p>	<p>As a student in the Department of Biotechnology for almost 7 consecutive years, the curriculum provided me a strong foundation in biotechnology principles, and the coursework was generally well-structured. The lab facilities are well-equipped, and access to state-of-the-art equipment is greatly appreciated. The faculty members are knowledgeable and enthusiastic about their fields. Their expertise is evident in their lectures and research. Furthermore, even after passing out from the department, there is a continuous support, counseling and guidance provided by respectful faculty members at any time.</p>




DEPARTMENT OF Chemistry

Mission:

To develop the human resources with the capability to comprehend theoretical and applied aspects of different branches of chemistry by providing them conducive environment of teaching and learning, and expand their cognitive frontiers by introducing internationally recognizable research program

Programs Offered

- BS Chemistry
- M.Phil. Chemistry
- Ph. D. Chemistry





Chairperson:

Dr. Tashfeen Akhtar

Tel.: +92-05827-961100

E-mail: chairperson.chemistry@must.edu.pk

Message from Chairperson:

Quality of scientific knowledge is the prime object of the era; we are passing through. We are blessed with an excellent teaching and research faculty in the Chemistry Department. We have state-of-the-art laboratories improving our students' scientific and technical capacity. We focus on empowering our graduates with knowledge, morality, wisdom, and skills to resolve the globe's growing challenges. Our graduates are working with honor and diligence in the education sector, industry, and research Institutes within and outside the country. Therefore, your priority to opt for admission to a relevant chemistry program is worthwhile and will lead you to dignity and prosperity in society across the globe. We welcome you to one of the best learning environments at MUST, Mirpur.



Faculty members of Chemistry Department



Faculty Members

Dr. Tashfeen Akhtar

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PhD

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Introduction

Since its inception in 2010, the department has enjoyed respect among the best Departments of MUST. The Department has highly qualified faculty in teaching and research, reflected by dozens of publications in impact factor journals per year.

At present, the Department of Chemistry offers courses leading to BS, M.Phil. and Ph.D. degrees.

BS (Bachelor of Science in Chemistry) is a four-year program comprising theoretical and practical knowledge of Chemistry. The coursework is a blend of scientific, chemical, and social knowledge. The program is designed to cover not only four major areas of chemistry i.e., Physical, Inorganic, Organic, and Analytical Chemistry, courses in biochemistry, environmental, and applied chemistry are also offered. In addition to chemistry at undergraduate level courses in social sciences, humanities, mathematics, statistics, physics, and computer science are also offered as per HEC undergraduate policy 2023. To refine the analytical abilities of graduates quantitative reasoning courses are also part of the degree program.

At the post-graduate level, the department offers coursework in the conventional and emerging areas of chemistry. The research areas include; Photovoltaic Materials and Organic Synthesis, Nanomaterials and Drug Designing, Coordination Chemistry, and Natural Products. Besides the research in computational and theoretical chemistry is also landing its footing at MUST Chemistry Department. The department has produced around 200 M.Phil and eight PhDs so far.

Department Mission

“To develop the human resources with the capability to comprehend theoretical and applied aspects of different branches of chemistry by providing them the conducive environment of teaching and learning, and expand their cognitive frontiers by introducing internationally recognizable research program”

Program Educational Objectives (PEOs)

- To train undergraduate chemists regarding theoretical and practical aspects of chemistry and help them to use this knowledge analytically and creatively
- To develop an awareness of the applications of chemistry in area of health, agriculture, industry, environment, and defense.
- To develop and improve their oral and written communication capabilities.
- To encourage students to become effective independent learners.
- To enable the students to meet the emerging challenges in chemistry and apply them scientifically.
- To enable students to materialize their concepts for commercial and technological purposes and report them in a comprehensive way.
- To make them able to serve and lead the region a progressively.

Program Learning Outcomes (PLOs)

- Competent and confident chemists with a conceptual and contributive frame of mind.



- Well trained (theoretically and practically) chemists, who would be capable of taking up any challenge in chemistry.
- Equipped with expressive qualities and would communicate in proper scientific language on chemistry-related issues.
- Able to fulfill the requirements of the public and private sector organizations and industries concerning serving and leading perspectives.
- Able to lead and contribute to the economy of the country and the globe.

BS Chemistry

BS-Chemistry curriculum covers the fundamental concepts of chemistry that help understanding the matter around us, and it is a practical science with extensive applications. This program provides the basic and modern concepts of physical, inorganic, organic, analytical, environmental, bio chemistry and material science. The scheme of studies is in accordance with the guidelines of Higher Education Commission (HEC) of Pakistan.

Program Mission

The BS in Chemistry makes students capable to pursue their careers as professional chemists and also serves as a footing for careers in various other fields including health and medicine. The curriculum offers a fundamental knowledge of the major fields of chemistry such as the general areas of physical, inorganic and organic chemistry and many other specialized courses in analytical, material and biochemistry. Students also gain laboratory experience in inorganic and organic synthesis, analytical methods, physicochemical measurements, and spectroscopy.

Program Educational Objectives (PEOs)

The main objectives of BS-Chemistry curriculum are:

- To provide a diverse, and supportive environment where faculty and students have opportunities for advancing their knowledge.
- To attain chemical knowledge and laboratory skills required for a professional chemist.
- To understand basic principles of analytical, inorganic, organic, applied, material and physical chemistry.
- To develop critical thinking and problem solving aptitude in students.
- To apply the acquired knowledge of chemistry for the enhancement of socio-economic growth of country.

Program Learning Objectives (PLOs)

- Students will know the general principles of chemistry. They will be able to compare and contrast physical properties and chemical reactivity from molecular structure. They will be able to perform standard stoichiometric, solution, kinetic and thermodynamic calculations.
- They will know the common reactions of elements and compounds, including oxidation reduction, neutralization, and precipitation reactions. They will know the common methods of functional group inter-conversions, be able to perform retro-synthetic analysis, propose multistep syntheses, and evaluate synthetic schemes.
- They will demonstrate accurate quantitative measurements, interpret experimental results, and



prepare compounds using multistep syntheses, followed by separation, purification, and identification by modern chemical and spectroscopic analysis.

- They will be able to operate the sophisticated chemical instrumentation and respond properly to the hazards of handling chemicals.
- They will be capable at using computer technology to learn, display and analyze chemical information.
- Students will progress through their chosen chemistry degree program in a timely manner and will be educationally prepared to work in scientific fields related to chemistry.

Scheme of Study

Nomenclature: Bachelor of Science in Chemistry
Semesters: 8-14
Total Credit Hours: 131
Session: Fall 2023 and onwards
Admission Criteria F.Sc. Pre-medical, Pre-engineering with minimum 45% marks (2nd division)

Semester-I				
Course Code	Course Title	Course Category	Credit Hours	
			Theory	Lab.
CHEM-1104	Inorganic Chemistry	Major	3	1
ENG-1107	Functional English	General	3	0

PHY-1118	Fundamentals of Physics	General (Natural Sciences)	2	1
ARA-1101	Arabic	General (Arts and Humanities)	2	0
Allied	Allied Course (One Course from the list given below) ^{a*}	Allied	3	0
HQT-1128	Holy Quran with Translation, Tajweed and Tafseer	Non-Credit	0	0
Total			13	2

^{a*} List of Allied Courses

BIOT-1102: Introduction to Biotechnology

BOT-1103: Diversity of Plants

ZOO-1123: Principles of Animal Life-I

Semester-II				
Course Code	Course Title	Course Category	Credit Hours	
			Theory	Lab.
CHEM-1204	Organic Chemistry	Major	3	1
ICP-1227	Ideology and Constitution of Pakistan	General	2	0
ICT-1226	Applications of Information and	General	2	1



	Communication Technologies (ICT)			
ISL-1212	Islamic Studies / Ethics	General	2	0
MAT-1215	Mathematics	Allied	3	0
STA-1220	Statistics	Allied	3	0
HQT-1128	Holy Quran with Translation, Tajweed and Tafseer	Non-Credit	0	0
Total			15	2
Semester-III				
Course Code	Course Title	Course Category	Credit Hours	
			Theory	Lab.
CHEM-2304	Physical Chemistry	Major	3	1
CHEM-2398	Environmental Chemistry	Major	3	0
Civics and Community Engagement	Civics and Community Engagement (One Course from the list given below) ^{b*}	General	2	0
Social Sciences	Social Sciences (One Course from the list given below) ^{c*}	General	2	0
QTR-2324	Quantitative Reasoning-I	General	3	0

Allied	Allied Course (One Course from the list given below) ^{d*}	Allied	3	0
HQT-1128	Holy Quran with Translation, Tajweed and Tafseer	Non-Credit	0	0
Total			16	1

^{b*} List of Civics and Community Engagement Courses.

CCE-2325: Civics and Community Engagement

LAW-1205: Moral and Ethics

^{c*} List of Social Sciences Courses (Course contents approved by the Departmental Councils of the respective Departments).

PSY-2319: Educational Psychology (Course contents: EDU-5506: Educational Psychology)

EDU-2304: Educational Leadership and Management (Course contents: EDU-5104: Educational Leadership and Management)

SOC-2321: Introduction to Sociology

LAW-2303: Political Science

^{d*} List of Allied Courses

PHY-2318: Electricity and Magnetism

BOT-2303: Cell Biology, Genetics and Evolution

ZOO-2323: Animal Diversity-I

Semester-IV				
Course Code	Title	Course Category	Credit Hours	
			Theory	Lab
CHEM-2404	Analytical Chemistry	Major	2	1



ENG-2407	Expository Writing	General	3	0
ETRE-2408	Entrepreneurship	General	2	0
QTR-2424	Quantitative Reasoning-II	General	3	0
CHEM-2481	Biochemistry	Major	3	1
CHEM-2491	Applied Chemistry	Major	2	0
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	Non-Credit	0	0
Total			15	2

Semester-V

Course Code	Course Title	Course Category	Credit Hours	
			Theory	Lab
CHEM-3501	Physical Chemistry	Major	3	1
CHEM-3521	Inorganic Chemistry	Major	3	1
CHEM-3541	Organic Chemistry	Major	3	1
CHEM-3561	Analytical Chemistry	Major	3	1
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	Non-Credit	0	0
Total			12	4

Semester-VI

Course Code	Course Title	Course Category	Credit Hours	
			Theory	Lab
CHEM-3601	Physical Chemistry	Major	3	1
CHEM-3621	Inorganic Chemistry	Major	3	1
CHEM-3641	Organic Chemistry	Major	3	1
CHEM-3681	Biochemistry	Major	3	1
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	Non-Credit	0	0
Total			12	4

Semester-VII (Specialization (Inorganic/Organic/Physical/Analytical/Biochemistry))

Course Code and Title	Course Category	Credit Hours	
		Theory	Lab
Paper-I	Major	3	0
Paper-II	Major	3	0
Paper-III	Major	3	0
Elective Course-I (other than the field of specialization)	Major	3	0
Advanced Lab	Major	0	3
Field Experience/Internship (CHEM-4799)		0	3
HQT-1128 Holy Quran with Translation, Tajveed and Tafseer	Non-Credit	0	0
Total		12	6



Semester-VIII (Specialization (Inorganic/Organic/Physical/Analytical/Biochemistry))

Course Code and Title	Course Type	Credit Hours	
		Theory	Lab
Paper-IV	Major	3	0
Paper-V	Major	3	0
Paper-VI	Major	3	0
Elective Course - II (other than the field of specialization)	Major	3	0
Capstone Project (CHEM-4899)		0	3
HQT-1128 Holy Quran with Translation, Tajveed and Tafseer	Non-Credit	0	0
Total		12	3

M.Phil. Chemistry

Program Mission

M. Phil chemistry program aims to inculcate research aptitude and solution-based philosophy to the evolving complications/problems in the field of chemistry

Program Educational Objectives (PEOs)

- Development of strong communication skills and cooperative scientific culture among scholars.
- Empowerment of the skilful aptitudes of scholars to resolve the emerging problems in the industries and society.
- Provision of better chances and modern research approaches for applied research pertinent to national and international needs.

- Preparation of scholars for the publication of their research work in national and international journals of high repute.
- Inspiration of moral values in scholars for benefit of the Society.

Program Learning Objectives (PLOs)

- Establishing advanced research laboratories by utilizing available resources.
- Amplification of a sound teaching system based on the vision and experience congregated from the literature, global reviews and symposia, etc.
- Upholding a high level of technical and scientific brilliance in teaching, research, thesis writing and publications.
- Solving research problems related to national and global development.
- Inculcation of ethical values in scholars for the betterment of the nation and mankind.

Scheme of Study (M.Phil. Chemistry)

Duration	4-6 Semester
Course work	24
Seminar (PHY-798)	01
Thesis (PHY-799)	06
Total	31

Admission criteria as per HEC graduate policy 2023.



PhD in Chemistry

Program Mission

To train the graduate chemists to materialize their innovation by conducting internationally recognizable research activities in emerging fields of chemistry and the chemical industry

Program Educational Objectives (PEOs)

- **Foundational Skills:** Scholars can build their fundamental knowledge skills by completing a set of required and elective courses.
- **Research Skills:** Scholars can pursue research in their field of interest and acquire professional-level knowledge and expertise.
- **Communication and Professional Preparation:** Scholar can develop professional competency in presenting scientific outcomes in both written and oral forms.
- **Comparative Levels of Competency:** PhD degrees provide professional expertise to scholars so that they can add new knowledge by their thesis or dissertation, and original scientific publications.

Program Learning Objectives (PLOs)

- Designing and obstinately apprising the curricula to deliver an extensive understanding of major fields of Chemistry.
- Strengthening a comprehensive teaching system on the basis of the visualization and experience massed from the literature, global reviews seminars/conferences, etc.

- Establishing advanced research laboratories by utilizing available resources.
- Developing high-level scientific skills in the areas of teaching, research, thesis writing, and publications.
- Solving research problems related to national and global development.
- Incultation of ethical values in scholars for the betterment of the nation and mankind.

Scheme of Study (Ph.D. in Chemistry)

Duration	6 semester (minimum)
Courses	18 Credit Hours
Seminar	02 Credit Hours
Thesis	30 Credit Hours
Total	50 Credit Hours

Admission criteria as per HEC graduate policy 2023.

List the Laboratories

S. No.	Laboratory Name	S. No.	Laboratory Name
1	Postgraduate Research Lab	2	Advanced Instruments Lab
3	Undergraduate Lab-I	4	Undergraduate Lab-II



Facilities

Spectrophotometry

1. UV-VIS SPECTROPHOTOMETER
2. FTIR SPECTROPHOTOMETER (FTIR)
3. FLOUROPHOTOMETER

Thermal Analysis

1. DIFFERENTIAL SCANNING CALORIMETRY (DSC)
2. THERMAL GRAVIMETRIC ANALYSIS (TGA)

Thin Film and Material Fabrication

1. DIP COATING
2. TIP SONICATOR
3. BATH SONICATOR
4. AUTOCLAVE
5. AACVD (AEROSOL ASSISTED CHEMICAL VAPOUR DEPOSITION)
6. TABLE TOP CENTRIFUGE
7. HIGH SPEED CENTRIFUGE
8. Particle size analyzer

Furnaces

1. COMPACT MUFFLE FURNACE
2. MICROWAVE OVEN
3. TUBE FURNACE

Electrochemical Characterization

1. POTENTIOSTATE

Palate Maker

1. HYDRAULIC PRESS

Job Opportunities for Graduates

The latest courses are offered by the criteria set by HEC. Students are provided opportunities to use equipment for laboratory and research experiments. The students graduating from this university have a vast field of opportunities open to those who are keen to carry on with their academic results. Our graduates are finding positions in the education department, and industry besides winning fellowship for higher studies in the technologically advanced countries. One of our PhD graduates also found a post-doctorate fellowship at the University of Miami USA. They can have a career as a Teacher, Researcher, Quality Control Manager in the Pharmaceutical Industry, Research and Development officer, R & D Organizations under NESCOM, and many other opportunities.

Scholarships Offered

1. University Merit Scholarship Scheme
2. MUST-Need Based Scholarship Program
3. HBL Foundation Stipend Scheme (HBLFSS)
4. HEC-Need-Based Scholarship Program
5. Provincial Government Scholarship
6. Benevolent fund scholarships
7. National Bank Scholarship
8. AJ&K Council Scholarship Scheme
9. AJ&K State Talent Scholarship Scheme
10. Punjab Educational Endowment Fund (PEEF)
11. USAID Scholarship
12. Fauji Foundation
13. Pakistan Scottish scholarship scheme



Alumni Messages



Dr. Muhammad Haroon
PhD Chemistry 2020

It is an honor for me to share my words as an alumnus of the Chemistry Department at Mirpur University of Science and Technology (MUST), Mirpur. My time in the Chemistry Department was a period of gaining deep knowledge about chemistry and a handful of experience in research methodologies and learning experimental techniques. The Chemistry Department is truly a place where students can accelerate their academic journey by gaining knowledge about core principles of chemistry and foster a deep understanding of the subject. The Department's research facilities provide such excellent ground for conducting basic to advanced research to explore innovative solutions. The department's dedicated faculty members are both passionate educators and accomplished researchers, are committed to enhance your potential and guiding you through your academic journey. During my stay at the Chemistry Department, I received immense collaborative support and professional development that the chemistry department cultivates. The department's emphasis on research and practical experience equipped me with the skills and confidence needed to excel in my career and make meaningful contributions to the field.



Ayesha Fatima
MPhil Chemistry
2020-2022

I have graduated from the Department of Chemistry, MUST Mirpur, explored new avenue of research and progress in the field of chemistry and I can confidently say that it laid a solid foundation for my career as a Research Chemist. The whole faculty was incredibly supportive and enthusiastic about teaching, and the lab facilities were top-notch. I appreciate the opportunities to work on research projects. During my academic period, I also attended and presented my research work at many conferences and webinars at both national and international level, which helped me to refine my skills and network and had a great impact on my learning. It was an outstanding experience for my research as it is actually a road map for my further research work. Overall, I'm grateful for the experience and would recommend the program to anyone interested in chemistry. The skills and knowledge I gained have been invaluable in my current role and I'm excited to see how the program continues to evolve and improve. The program provided a comprehensive education in chemistry, and I appreciate the emphasis on firsthand learning and research. The campus resources are excellent. Overall, I'm satisfied with my experience and would recommend the new chemist to start their higher education at MUST Chemistry Department.



Muhammad Shahzaib
BS Chemistry 2020-2024

Attending the Mirpur University of Science and Technology (MUST) in AJK, particularly as a BS student in the Department of Chemistry, has been a transformative experience.

The journey here has been incredibly rewarding and filled with joy and growth. In my opinion, the Department of Chemistry stands out as the best, with highly knowledgeable and dedicated faculty members. Each professor goes above and beyond to ensure that we not only understand our subject but also develop a deep appreciation for the subject. The laboratories are well-equipped, providing us with the practical experience necessary to complement our theoretical learning.

Beyond academics, the university offers a wide range of extracurricular activities, with the MUST Chemical Society being a prime example. Being selected as the President of the MUST Chemical Society was a pivotal moment in my journey here. It was an incredible opportunity to develop leadership and organizational skills. The support from the faculty was unwavering, contributing significantly to the success of the society and enhancing my personal growth. I am grateful for the experience and the support of my teachers, who have played a crucial role in my development both as a student and as a leader. I recommend you join the MUST Chemistry Department for a bright future.



DEPARTMENT OF Computer Science and Information Technology

Mission:

The objective of the studies is acquiring skill and knowledge to carry out research in computer Science / Information Technology fields and apply the expertise in any new or existing domain of human life. The department focuses on producing computer and IT professionals who can explore new dimensions in the computing domain and look for advanced areas in which information technology may be applied.

Programs Offered

BS (CS)
BS (IT)



Chairperson:

Dr. Yasir Mehmood

Tel: +92-5827-961028

E-mail: chairman.csit@must.edu.pk

Message from Chairperson:

The department is focused on devising innovative, correct solutions to real life problems, while ensuring a level of excellence in the research and academia, providing world class learning environment. Our success is evident from our high points such as highly professional, foreign qualified and experienced faculty, diverse degree programs, research achievements and successful alumni serving the top organization nation and worldwide. We have 4 full-time PhD faculty members supervising in the diverse research domains such as E-Learning, Data mining, Web Mining, Image Processing, Networks, Internet of Things, Artificial Intelligence, Self-Driving Vehicles etc.

We also boast our state-of-the-art facilities which include a well-stocked university library, fully equipped computer labs, online research databases, as well as printing and scanning facilities. I am looking forward to seeing you at Department of Computer Science and wish all our students and graduates continued growth and success in their educational and professional endeavor



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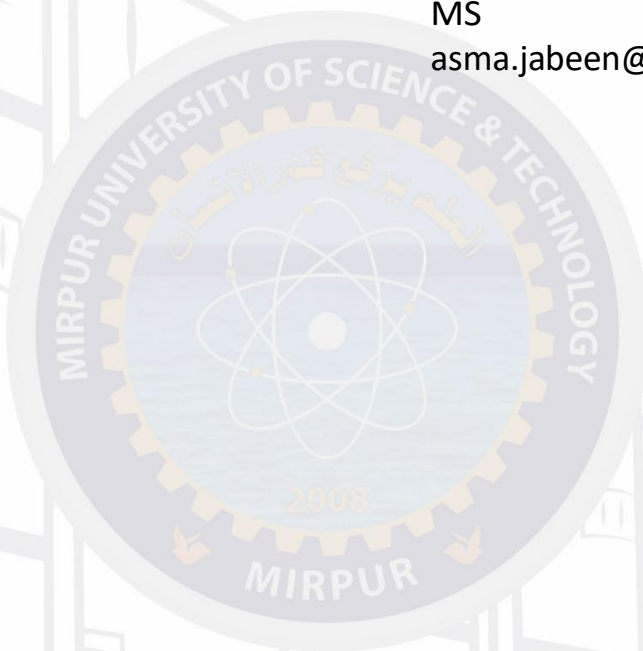
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Introduction

The Department of Computer Science & Information Technology (CS&IT) was initially established in 2001 at Mirpur as a sub-campus of University of AJ&K, Muzaffarabad. This department later merged into Mirpur University of Science and Technology (MUST), Mirpur (A.K) in 2009. The department offers an excellent learning environment, laboratories equipped with latest computers (all connected through Local Area Network) with internet facility, most recent books, and qualified faculty. The department developed the curricula of academic programs at various levels to meet the national and international standards as defined by Higher Education Commission. The Department offers Bachelor of Science in Computer Science (BSCS), Bachelor of Science in Information Technology (BSIT) four years' degree programs, MS in Computer Science, a two years degree program and Doctor of Philosophy in Computer Science (PhD)). The BSCS and BSIT degree programs are accredited by HEC, National Computing Education Accreditation Council (NCEAC).

Department Mission

The Department is committed to providing higher education, high-quality technical and professional education to:

- Address the evolving needs of individuals and society, and
- Support and develop more competitive and skilled professionals to meet the challenging demands of this modern era.

Accreditation History

The accreditation history of National Computing Education

Accreditation Council (NCEAC) for department of Computer Science & Information Technology, MUST is mentioned below:

Sr #	Accreditation Year	Intake	Date of Visit	Awarded Category
1	2023	BSCS:2019-23 BSIT: 2019-23 & 2020-24	21 st November 2023	Y X
2	2022	BSCS:2018-22 BSIT: 2018-22	20 th July, 2022	Y Y
3	2014	BSCS: 2011-2015 & 2012-2016 BSIT: 2011-2015 & 2012-2016	28 th November, 2014	X X

Bachelor of Science in Computer Science (BSCS)

Program Educational Objectives (PEOs)

The key objective of the program is to equip students with skills and knowledge that enable them to take an appropriate professional position in the computer science field. The main goals are:

PEO-1: To educate students with theoretical knowledge of Computer Science.

PEO-2: To enhance programming, analytical and problem-solving skills.



PEO-3: To empower students with the future vision of computer science and required research abilities.

Admission Criterion:

Minimum 50% marks in Intermediate/A- Level/F.Sc (Pre-Engineering) /F.Sc (Pre-Medical) / ICS, or Equivalent. The students who have not studied Mathematics at intermediate level have to pass deficiency courses of Mathematics (06 credits) in first two semesters.

Duration:

8-14 Semesters

Scholarships Offered:

1. University Merit Scholarship Scheme	9. Institution of Engineers Pakistan-Saudi Arabian Centre (IEP-SAC)
2. MUST-Need Based Scholarship Program	10. Sara Ahmed Joo Saraf Trust
3. Students-Guardians Insurance Scheme	11. National Endowment Scholarships for Talent (NEST)
4. HEC-Need Based Scholarship Program	12. Prime Minister Wheelchair Scholarship Program
5. Pakistan Scottish Scholarship Scheme for Young Women	13. Pakistan Education Endowment Fund (PEEF)
6. HEC-EHSAAS Scholarship Project	14. Haji Muhammad Bashir Scholarships
7. HBL Foundation Scholarship Scheme	
8. Laraib Energy Ltd. Scholarship	

Scheme of Study

Program Duration:	8-14 Semesters (4-7 Academic Years)
Total number of Credit Hours (CH) inclusive of 6-credit project:	136
Final Year Project Credits	6

Internship/Practical Training Credits	3
Computing Core Courses	14
Domain Core Courses	6
Domain Elective Courses	7
Mathematics & Supporting Courses	4
Elective Supporting Courses	01
General Education Requirement Courses	12
Compulsory (Arabic) Course	01

Semester Plan of Bachelor of Science in Computer Science (BSCS)

Year 1 Semester I			
Code	Pre-Req	Course Title	Cr. Hrs.
ICT-1126		Application of Information & Communication Technologies	2(2-0)
ICT-1126L		Application of Information & Communication Technologies Lab	1(0-3)
BCS-1101		Programming Fundamentals	3(3-0)
BCS-1101L		Programming Fundamentals Lab	1(0-3)
MAT-1115		Discrete Structures	3(3-0)
ICP-1127		Ideology and Constitution of Pakistan	2 (2-0)



ENG-1107		Functional English	3(3-0)
MAT-1115NC		*Pre-Algebra (Non-Credit)	3(3-0)
HQT-1128		Holy Quran with Translation, Tajweed, and Tafseer.	0(0-0)
SFS-1101		Skill for Success	0(0-0)
Total			15 (13-6)
*For those students who have not studied mathematics in intermediate			
Year 1 Semester II			
Code	Pre-Req	Course Title	Cr. Hrs.
BCS-1202	BCS-1101, BCS-1101L	Object Oriented Programming	3(3-0)
BCS-1202L	BCS-1101, BCS-1101L	Object Oriented Programming Lab	1(0-3)
BCS-1203		Database Systems	3(3-0)
BCS-1203L		Database Systems Lab	1(0-3)
ENG-1207	ENG-1107	Expository Writing	3(3-0)
MAT-1215		Linear Algebra	3(3-0)
PHY-1218		Applied Physics	2(2-0)
PHY-1218		Applied Physics Lab	1(0-3)
MAT-1215NC		*Pre-Calculus (Non-Credit)	3(3-0)
HQT-1128		Holy Quran with Translation, Tajweed, and Tafseer.	0(0-0)

		Total	17 (14-9)
*For those students who have not studied mathematics in intermediate			
Year 2 Semester III			
Code	Pre-Req	Course Title	Cr. Hrs.
BCS-2304	BCS-1202, BCS-1202L	Data Structures	3(3-0)
BCS-2304L	BCS-1202, BCS-1202L	Data Structures Lab	1(0-3)
BCS-2305		Operating Systems	2(2-0)
BCS-2305L		Operating Systems Lab	1(0-3)
BCS-2306		Digital Logic Design	2(2-0)
BCS-2306L		Digital Logic Design Lab	1(0-3)
MAT-2315		Calculus & Analytical Geometry	3(3-0)
STA-2320		Probability & Statistics	3(3-0)
ARA-2301		Arabic	3(3-0)
HQT-1128		Holy Quran with Translation, Tajweed, and Tafseer.	0(0-0)
		Total	19 (16-9)
Year 2 Semester IV			
Code	Pre-Req	Course Title	Cr. Hrs.
BCS-2407		Computer Organization & Assembly Language	2(2-0)
BCS-2407L		Computer Organization & Assembly Language Lab	1(0-3)



BCS-24xx		Domain Elective 1	2(2-0)
BCS-24xxL		Domain Elective 1 Lab	1(0-3)
BCS-2408		Software Engineering	3(3-0)
BCS-2409		Artificial Intelligence	2(2-0)
BCS-2409L		Artificial Intelligence Lab	1(0-3)
MAT-2415		Multivariable Calculus	3(3-0)
SOC-2421		Civic and Community Engagement	2(2-0)
HQT-1128		Holy Quran with Translation, Tajweed, and Tafseer.	0(0-0)
		Total	17 (14-9)
*Student is eligible to apply for internship in any summer after 4th semester.			
Year 3 Semester V			
Code	Pre-Req	Course Title	Cr. Hrs.
BCS-3510		Information Security	2(2-0)
BCS-3510L		Information Security Lab	1(0-3)
BCS-3511		Analysis of Algorithm	3(3-0)
BCS-3512		Computer Networks	2(2-0)
BCS-3512L		Computer Networks Lab	1(0-3)
BCS-35xx		Domain Elective 2	2(2-0)
BCS-35xxL		Domain Elective 2 Lab	1(0-3)
BCS-3517		Theory of Automata	3(3-0)
BCS-35xx		Domain Elective 3	2(2-0)

BCS-35xxL		Domain Elective 3 Lab	1(0-3)
HQT-1128		Holy Quran with Translation, Tajweed, and Tafseer.	0(0-0)
		Total	18 (14-12)
Year 3 Semester VI			
Code	Pre-Req	Course Title	Cr. Hrs.
BCS-3618		Compiler Construction	2(2-0)
		Compiler Construction Lab	1(0-3)
BCS-3615	BCS-1203, BCS-1203L	Advance Database Management System	2(2-0)
	BCS-1203, BCS-1203L	Advance Database Management System Lab	1(0-3)
BCS-36xx		Domain Elective 4	2(2-0)
BCS-36xxL		Domain Elective 4 Lab	1(0-3)
BCS-36xx		Domain Elective 5	2(2-0)
BCS-36xxL		Domain Elective 5 Lab	1(0-3)
ECO-3606		Economics	2(2-0)
ENG-3607		Technical and Business Writing	3(3-0)
HQT-1128		Holy Quran with Translation, Tajweed, and Tafseer.	0(0-0)
		Total	17(13-12)
Year 4 Semester VII			
Code	Pre-Req	Course Title	Cr. Hrs.



BCS-4716		Computer Architecture	2(2-0)
BCS-4716L		Computer Architecture Lab	1(0-3)
BCS-4713		Final Year Project - I	2(0-6)
BCS-47xx		Domain Elective 6	2(2-0)
BCS-47xxL		Domain Elective 6 Lab	1(0-3)
BCS-47xx		Domain Elective 7	2(2-0)
BCS-47xxL		Domain Elective 7 Lab	1(0-3)
ETR-4708		Entrepreneurship	2(2-0)
MBS-4709		Introduction to Marketing	3(3-0)
ISL-4712		Islamic Studies	2(2-0)
HQT-1128		Holy Quran with Translation, Tajweed, and Tafseer.	0(0-0)
		Total	18 (13-15)
Year 4 Semester VIII			
Code	Pre-Req	Course Title	Cr. Hrs.
BCS-4814	BCS-4713	Final Year Project - II	4(0-12)
HUM-4817		Professional Practices	2 (2-0)
BCS-4819		HCI and Computer Graphics	2(2-0)
BCS-4819L		HCI and Computer Graphics Lab	1(0-3)
BCS-4820		Parallel Distributed Computing	2(2-0)

BCS-4820L		Parallel Distributed Computing Lab	1(0-3)
BCS-4822		Internship	3(3-0)
HQT-1128		Holy Quran with Translation, Tajweed, and Tafseer.	1(1-0)
		Total	16 (10-18)

*** For evaluation of Final Year Project-II, one credit hour will be marked by internal supervisor and three by external supervisor.**

List of Elective Courses (21/137) 7 Courses

*Students can register elective courses across the computing discipline

Code	Pre-Req	Course Title	Cr. Hrs.
BCS-2422		Full Stack Web Development	2(2-0)
BCS-2422L		Full Stack Web Development Lab	1(0-3)
BCS-3523		Mobile Application Development 1	2(2-0)
BCS-3523L		Mobile Application Development 1 Lab	1(0-3)
BCS-4724	BCS-1202	Advanced Programming	2(2-0)
BCS-4724L	BCS-1202	Advanced Programming Lab	1(0-3)
BCS-4725	BCS-3510	Cyber Security	2(2-0)
BCS-4725L	BCS-3510	Cyber Security Lab	1(0-3)
BCS-3626		Mobile Application	2(2-0)



		Development 2	
BCS-3626L		Mobile Application Development 2 Lab	1(0-3)
BCS-3627		Cloud Computing	2(2-0)
BCS-3627L		Cloud Computing Lab	1(0-3)
BCS-3528	BCS-1203	Distributed Database System	2(2-0)
BCS-3528L	BCS-1203	Distributed Database System Lab	1(0-3)
BCS-3529		Data Mining	2(2-0)
BCS-3529L		Data Mining Lab	1(0-3)
BCS-3630		Big Data Analytics	2(2-0)
BCS-3630L		Big Data Analytics Lab	1(0-3)
BCS-4731		Network Security	2(2-0)
BCS-4731L		Network Security Lab	1(0-3)
BCS-3632		Deep Learning	2(2-0)
BCS-3632L		Deep Learning Lab	1(0-3)
BCS-2433		Applications in block chain	2(2-0)
BCS-2433L		Applications in block chain Lab	1(0-3)
BCS-3534		Introduction to Python Programming	2(2-0)
BCS-3534L		Introduction to Python Programming Lab	1(0-3)
BCS-4735		Game Development	2(2-0)
BCS-4735L		Game Development Lab	1(0-3)
BCS-3636		Digital Image Processing	2(2-0)

BCS-36x6L		Digital Image Processing Lab	1(0-3)
BCS-4737		Semantic Web	2(2-0)
BCS-4737L		Semantic Web (L)	1(0-3)
BCS-3638		Object Oriented Analysis & Design	2(2-0)
BCS-3638L		Object Oriented Analysis & Design Lab	1(0-3)
BCS-3539		Software Testing & Quality Assurance	2(2-0)
BCS-3539L		Software Testing & Quality Assurance Lab	1(0-3)

**Bachelor of Science in Information Technology (BSIT)
Program Educational Objectives (PEOs)**

The key objective of this program is to equip students with skills and knowledge that enable them to take appropriate professional positions in the ICT industry. The main goals are:

PEO-1: To educate students with theoretical knowledge of Computer Science and Information Technology.

PEO-2: To enhance the programming, analytical and problem-solving skills.

PEO-3: To enable students to select, design, integrate and administer Computer based solutions into the organizational environment.

Admission Criterion:
Minimum 50% marks in Intermediate/A- Level/F.Sc (Pre-Engineering) /F.Sc (Pre-Medical) / ICS, or Equivalent. The students



who have not studied Mathematics at intermediate level have to pass deficiency courses of Mathematics (06 credits) in first two semesters.

Duration:

8-14 Semesters

Scholarships Offered:

- | | |
|---|---|
| 1. University Merit Scholarship Scheme | 9. Institution of Engineers Pakistan-Saudi Arabian Centre (IEP-SAC) |
| 2. MUST-Need Based Scholarship Program | 10. Sara Ahmed Joo Saraf Trust |
| 3. Students-Guardians Insurance Scheme | 11. National Endowment Scholarships for Talent (NEST) |
| 4. HEC-Need Based Scholarship Program | 12. Prime Minister Wheelchair Scholarship Program |
| 5. Pakistan Scottish Scholarship Scheme for Young Women | 13. Pakistan Education Endowment Fund (PEEF) |
| 6. HEC-EHSAAS Scholarship Project | 14. Haji Muhammad Bashir Scholarships |
| 7. HBL Foundation Scholarship Scheme | |
| 8. Laraib Energy Ltd. Scholarship | |

Scheme of Study

Program Duration:	8-14 Semesters (4-7 Academic Years)
Total number of Credit Hours (CH) inclusive of 6-credit project:	136
Final Year Project Credits	6
Internship/Practical Training Credits	3
Computing Core Courses	14

Domain Core Courses	6
Domain Elective Courses	7
Mathematics & Supporting Courses	4
Elective Supporting Courses	01
General Education Requirement Courses	12
Compulsory (Arabic) Course	01

Semester Plan of Bachelor of Science in Computer Science (BSIT)

Year 1 Semester I			
Code	Pre-Req	Course Title	Cr. Hrs.
ICT-1126		Application of Information & Communication Technologies	2(2-0)
ICT-1126L		Application of Information & Communication Technologies Lab	1(0-3)
BIT-1101		Programming Fundamentals	3(3-0)
BIT-1101L		Programming Fundamentals Lab	1(0-3)
MAT-1115		Discrete Structures	3(3-0)
ICP-1127		Ideology and Constitution of Pakistan	2(2-0)
ENG-1107		Functional English	3(3-0)
MAT-1115NC		*Pre-Algebra (Non-Credit)	3(3-0)
HQT-1128		Holy Quran with Translation, Tajweed and Tafseer	0(0-0)



SFS-1101		Skill for Success	0(0-0)
Total			15 (13-6)
<i>For those students who have not studied Mathematics in Intermediate.</i>			
Year 1 Semester II			
Code	Pre-Req	Course Title	Cr. Hrs.
BIT-1202	BIT-1101, BIT-1101L	Object Oriented Programming	3(3-0)
BIT-1202L	BIT-1101, BIT-1101L	Object Oriented Programming Lab	1(0-3)
BIT-1203		Database Systems	3(3-0)
BIT-1203L		Database Systems Lab	1(0-3)
ENG-1207	ENG-1107	Expository Writing	3(3-0)
MAT-1215		Linear Algebra	3(3-0)
PHY-1218		Applied Physics	2(2-0)
PHY-1218L		Applied Physics Lab	1(0-3)
MAT-1215NC		*Pre-Calculus (Non-Credit)	3(3-0)
HQT-1128		Holy Quran with Translation, Tajweed and Tafseer	0(0-0)
Total			17 (14-9)
<i>For those students who have not studied Mathematics in Intermediate.</i>			
Year 2 Semester III			
Code	Pre-Req	Course Title	Cr. Hrs.
BIT-2304	BIT-1202, BIT-1202L	Data Structures	3(3-0)

BIT-2304L	BIT-1202, BIT-1202L	Data Structures Lab	1(0-3)
BIT-2305		Operating Systems	2(2-0)
BIT-2305L		Operating Systems Lab	1(0-3)
BIT-2306		Digital Logic Design	2(2-0)
BIT-2306L		Digital Logic Design Lab	1(0-3)
MAT-2315		Calculus & Analytical Geometry	3(3-0)
STA-2320		Probability & Statistics	3(3-0)
ARA-2301		Arabic	3(3-0)
HQT-1128		Holy Quran with Translation, Tajweed and Tafseer	0(0-0)
Total			19 (16-9)
Year 2 Semester IV			
Code	Pre-Req	Course Title	Cr. Hrs.
BIT-2407		Computer Organization & Assembly Language	2(2-0)
BIT-2407L		Computer Organization & Assembly Language Lab	1(0-3)
BIT-24xx		Domain Elective 1	2(2-0)
BIT-24xxL		Domain Elective 1 Lab	1(0-3)
BIT-2408		Software Engineering	3(3-0)
BIT-2409		Artificial Intelligence	2(2-0)
BIT-2409L		Artificial Intelligence Lab	1(0-3)
MAT-2415		Multivariable Calculus	3(3-0)
SOC-2421		Civic and Community Engagement	2(2-0)



HQT-1128		Holy Quran with Translation, Tajweed and Tafseer	0(0-0)
Total			17 (14-9)

**Student is eligible to apply for internship in any summer after 4th semester..*

Year 2 Semester V

Code	Pre-Req	Course Title	Cr. Hrs.
BIT-3510		Information Security	2(2-0)
BIT-3510L		Information Security Lab	1(0-3)
BIT-3511		Analysis of Algorithm	3(3-0)
BIT-3512		Computer Networks	2(2-0)
BIT-3512L		Computer Networks Lab	1(0-3)
BIT-35xx		Domain Elective 2	2(2-0)
BIT-35xxL		Domain Elective 2 Lab	1(0-3)
BIT-3517		Web Technologies	2(2-0)
BIT-3517L		Web Technologies Lab	1(0-3)
BIT-35xx		Domain Elective 3	2(2-0)
BIT-35xxL		Domain Elective 3 Lab	1(0-3)
HQT-1128		Holy Quran with Translation, Tajweed and Tafseer	0(0-0)
Total			18 (13-15)

Year 3 Semester VI

Code	Pre-Req	Course Title	Cr. Hrs.
BIT-3618		Cyber Security	2(2-0)
BIT-3618L		Cyber Security Lab	1(0-3)

BIT-3615		DB Administration & Management	2(2-0)
BIT-3615L		DB Administration & Management Lab	1(0-3)
BIT-36xx		Domain Elective 4	2(2-0)
BIT-36xxL		Domain Elective 4 Lab	1(0-3)
BIT-36xx		Domain Elective 5	2(2-0)
BIT-36xxL		Domain Elective 5 Lab	1(0-3)
HQT-1128		Holy Quran with Translation, Tajweed and Tafseer	0(0-0)
Total			18 (13-15)

Year 3 Semester VII

Code	Pre-Req	Course Title	Cr. Hrs.
BIT-3710		Project Management	2(2-0)
BIT-3710L		Project Management Lab	1(0-3)
BIT-3711		Cloud Computing	2(2-0)
BIT-3711L		Cloud Computing Lab	1(0-3)
BIT-3712		Mobile Application Development	2(2-0)
BIT-3712L		Mobile Application Development Lab	1(0-3)
BIT-3713		Artificial Intelligence Applications	2(2-0)
BIT-3713L		Artificial Intelligence Applications Lab	1(0-3)



HQT-1128		Holy Quran with Translation, Tajweed and Tafseer	0(0-0)
Total			18 (13-15)
Year 4 Semester VIII			
Code	Pre-Req	Course Title	Cr. Hrs.
BIT-4014		Capstone Project	3(3-0)
BIT-4015		Entrepreneurship	2(2-0)
BIT-40xx		Domain Elective 6	2(2-0)
BIT-40xxL		Domain Elective 6 Lab	1(0-3)
BIT-40xx		Domain Elective 7	2(2-0)
BIT-40xxL		Domain Elective 7 Lab	1(0-3)
HQT-1128		Holy Quran with Translation, Tajweed and Tafseer	0(0-0)
Total			18 (15-15)
* For evaluation of Final Year Project-II, one credit hour will be marked by internal supervisor and three by external supervisor.			

List of Elective Courses (21/137) 7 Courses

*Students can register elective courses across the computing discipline

Code	Pre-Req	Course Title	Cr. Hrs.
BIT-2422		Mobile Application Development 1	2(2-0)
BIT-2422L		Mobile Application Development 1 Lab	1(0-3)

BIT-4732		Advanced Programming	2(2-0)
BIT-4732L		Advanced Programming Lab	1(0-3)
BIT-2423	BIT-1202	Applications in block chain	2(2-0)
BIT-2423L	BIT-1202L	Applications in block chain Lab	1(0-3)
BIT-3629		Mobile Application Development 2	2(2-0)
BIT-3629L		Mobile Application Development 2 Lab	1(0-3)
BIT-3630		Cloud Computing	2(2-0)
BIT-3630L		Cloud Computing Lab	1(0-3)
BIT-4733		Semantic Web	2(2-0)
BIT-4733L		Semantic Web (L)	1(0-3)
BIT-4734		Network Security	2(2-0)
BIT-4734L		Network Security Lab	1(0-3)
BIT-3525	BIT-1203	Distributed Database System	2(2-0)
BIT-3525L	BIT-1203	Distributed Database System Lab	1(0-3)
BIT-3526		Data Mining	2(2-0)
BIT-3526L		Data Mining Lab	1(0-3)
BIT-3631		Big Data Analytics	2(2-0)
BIT-3631L		Big Data Analytics Lab	1(0-3)
BIT-3528		Introduction to Python Programming	2(2-0)
BIT-3528L		Introduction to Python Programming Lab	1(0-3)



BIT-2424		Information System	2(2-0)
BIT-2424L		Information System Lab	1(0-3)
BIT-4735		Game Development	2(2-0)
BIT-4735L		Game Development Lab	1(0-3)
BIT-3627		Digital Image Processing	2(2-0)
BIT-3627L		Digital Image Processing Lab	1(0-3)
BIT-3636		Wireless Networks	2(2-0)
BIT-3636L		Wireless Networks lab	1(0-3)
BIT-4737		Object Oriented Analysis and Design	2(2-0)
BIT-4737L		Object Oriented Analysis and Design Lab	1(0-3)
BIT-4738		Software Testing & Quality Assurance	2(2-0)
BIT-4738L		Software Testing & Quality Assurance Lab	1(0-3)

MS in Computer Science

Program Goals & Objectives

Department of Computer Science and Information Technology is offering the MS degree program in Computer Science since 2015. The MS in Computer Science comprises of both course work as well as research component. There are ‘four cores’ aimed at the strengthening the understanding and competence of students in computer science fundamentals. The university expect its MS graduates to pursue career either as computer science faculty or software development managers. The main objectives are:

- Students will be able to possess advanced knowledge of

Computer science field

- Students will be able to think creatively and critically; to solve-trivial problems
- Students will be able to use computing knowledge to develop efficient solutions for real life problems
- Students will be able to design solutions and can conduct research related activities.

Eligibility and Selection Criteria of MS in Computer Science

A candidate is eligible to apply for degree in relevant subject, earned from a recognized university after 16 years of education with at least 60% marks or CGPA of at least 2.0 (on a scale of 4.0).

Program Duration

2 Years Program

Full Time: Minimum Semesters = 4; Maximum Semester = 8

Credit Hours = 31; Semester Duration = 18 Weeks

16 Weeks Teaching; 2 Week Examination

Consent by the supervisor duly approved by the Chairperson and Dean Faculty shall be required for extension to 5th-6th semesters for regular and 7th to 8th semester for part time students, if required.

Scheme of Study

Year 1 Semester I		
Code	Course Title	Credit Hours
COMP-7xx	Core Course – I	3
COMP-7xx	Core Course – II	3
COMP-701	Research Methodology	3
COMP-7xx	Elective – I	3
Total		12



Year 1 Semester II		
Code	Course Title	Credit Hours
COMP-7xx	Core Course – III	3
COMP-7xx	Core Course – IV	3
COMP-7xx	Elective – II	3
COMP-7xx	Elective-III	3
	Total	12
Year 2 Semester III		
Code	Course Title	Credit Hours
COMP-799	MS Thesis- I	6
	Total	6
Year 2 Semester IV		
Code	Course Title	Credit Hours
COMP-799	MS Thesis-II	6
COMP-798	MS Seminar	1
	Total	7

Doctor of Philosophy in Computer Science

Program Goals & Objectives

Department of Computer Science and Information Technology is offering the Ph.D. degree program in Computer Science since 2022. The main objective of this program is to provide a route to professional doctorate and to prepare scientific/educational manpower with a depth of knowledge and research competence of international level to fill positions in Research Organizations, Industry, Management, Universities, Health Care and Educational Institutions.

Our main aim is to improve the qualifications, skills and expertise of teachers and researchers to provide highly competent professionals to various public and private universities and colleges in the globe.

Our scholar will be equipped not only with advanced computer science tools but will also acquire research skills needed to apply computer science knowledge towards real-life problems in different filed of engineering, sciences, economics, business, healthcare, etc. Moreover, our graduates will be able to:

Collaborate with engineers and scientists from industry and academia in their research/projects to promote the industry-academia linkages;

Promote the culture the interdisciplinary novel research and produce fundamental & applied quality research in Pakistan.

Contribute through active research in emerging areas of science, engineering and technology for instance artificial intelligence, data science, network security, distributed computing, semantic web, autonomous computing etc.

Eligibility and Selection Criteria

A candidate is eligible to apply for Degree in relevant subject, earned from a recognized university after 18 years of education with at 3.0 CGPA out of 4.0 CGPA

Program Duration

3 Years Program

Full Time:

Minimum Semesters = 6

Credit Hours = 70

16 Weeks Teaching

Maximum Semester = 10

Semester Duration = 18 Weeks

2 Week Examination



The scholar who can't finish their thesis by the end of the 6th semester will seek approval from the relevant authority (AS&RB) for an extension to complete his/her degree.

Scheme of Study

Year 1 Semester I		
Code	Course Title	Credit Hours
COMP-801	Advanced Research Methodology	3
COMP-8xx	Elective-I	3
COMP-8xx	Elective-II	3
	Total	9
Year 2 Semester III & IV		
COMP-8xx	Elective-III	3
COMP-8xx	Elective-IV	3
COMP-8xx	Elective-V	3
Total		9
Year 2 Semester III & IV		
COMP-896	Comprehensive Examination (Max. two Attempts)	P/F
COMP-8xx	Research/Thesis	50
Total		1
Year 3 Semester V & VI		
COMP-8xx	Research/Thesis	50
		51



List of the Laboratories

S. No.	Laboratory Name
1	Smart Lab
2	General Programming Lab I
3	General Programming Lab I
4	FYP Lab





Alumni Messages


 <p>Raja Fahad CEO Mobaroid BSIT Session: 2008-2010</p>	<p>As a graduate of the CSIT department, I can confidently say that my time there was instrumental in shaping my career. The curriculum was robust and included a mix of theoretical knowledge and practical skills, which helped me secure a competitive position in the tech industry. The faculty members were highly knowledgeable and always available for guidance, making complex topics more approachable. Additionally, the department's focus on real-world projects and internships provided invaluable hands-on experience. Overall, the department prepared me well for the challenges and opportunities in the tech field.</p>
 <p>Raja Usman Sajid CEO UA International BSIT Session: 2010-14</p>	<p>My experience in the CSIT department was both challenging and rewarding. The program's emphasis on both foundational concepts and cutting-edge technologies kept me engaged and well-prepared for the evolving tech landscape. The department's strong industry connections facilitated numerous networking opportunities and internships, which were crucial in landing my first job after graduation. The collaborative environment and support from faculty members were highlights of my experience, fostering both personal and professional growth. I highly recommend this department to anyone looking to build a solid career in computer science and IT.</p>



DEPARTMENT OF Mathematics



Degree Programs Offered

- BS Mathematics
 - M.Sc. Mathematics
 - M.Phil. Mathematics
 - PhD Mathematics
- 





Chairperson:

Dr. Kalim Ul-Haq Tariq

Tel. : +92-5827-951122

E-mail: chairperson.maths@must.edu.pk

Message from Chairperson:

Mathematics is a transition from the abstract to the concrete. Problem solving in the classroom leads to the laboratory and eventually to industry. The department provides training to its students that inculcates creative and innovative thinking and makes them capable of understanding complex problems and their solutions. It is an essential part of our vision. Mathematics is rightly considered a brain of human efforts and endeavor from modeling to design and its diversity scattered in the universe. Its applications are found in many disciplines including engineering, computer, space and material sciences, biotechnology, mathematical biology, management etc. Under-graduate program aims to present fundamental knowledge in pure, applied and computational mathematics along with the allied courses of diverse nature to inculcate students with necessary background, tools and techniques to start careers in teaching, research and industry and to reach the Sustainable

Development Goals. The graduate program is designed in the future prospective of research in pure, applied and computational mathematics and also finding applications on the broader spectrum

of science, engineering and technologies in the diverse and conducive environment provided by MUST. All activities in the department are carried out under the teamwork of the faculty equipped with the expertise of versatile nature and renowned for competence and commitment. Our faculty is also continuously striving towards excellence in research and teaching in various fields and disciplines within MUST. Our commitment to the excellence is a testament to the philosophy of our institution and the goals of our stakeholders.



Faculty members of Mathematics Department



Faculty members



Dr. Kalim Ul-Haq Tariq
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Qualification: PhD
Area of interest: Nonlinear Partial Differential Equations
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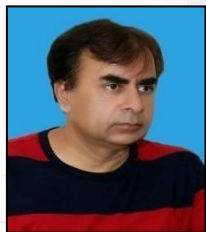
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Faculty Members



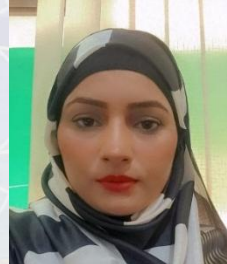
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Faculty Members



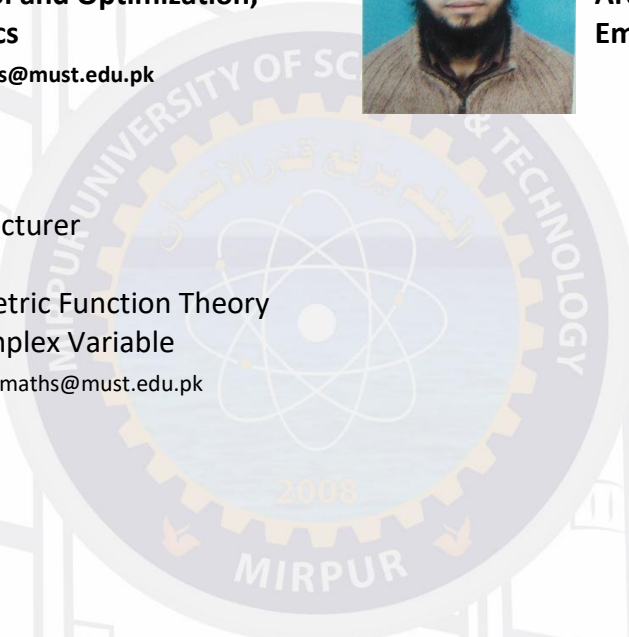
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Ms Asma Munir
Designation: Jr. Lecturer
Qualification: MS
Area of interest: Geometric Function Theory
of a Complex Variable
Email: asmamunir.maths@must.edu.pk





BS Mathematics

The BS program in mathematics is started in Fall-2012 as per direction of MUST and in the future prospective of the Higher Education Commission (HEC), Pakistan. The program has been designed as par scheme of studies approved by the HEC of Pakistan to assure the quality education and align it with the national and international requirements. The duration of BS program in Mathematics is 4-6 Years (8-14 Semesters). The main focus of the programs offered in the department is not entirely on applied mathematics. A significant importance is also given to pure mathematics which essentially plays a vital role in the general framework of applied mathematics, computer science, engineering and various other disciplines. The subjects of programming and numerical analysis cover some areas of computational mathematics. In BS program, subjects of English, Physics, Statistics, Sociology and Psychology are introduced with diverse and multiple objectives

Program Mission:

The BS Program in Mathematics aims at providing students a solid foundation in the major areas of mathematics required in the structural and theoretical advancement of mathematics, and a deeper understanding of the role of mathematics in engineering and sciences. The department of mathematics is committed to provide a supportive and conducive academic environment for learning through its various programs. The focus of this programs

is to produce intellectual mathematicians equipped with critical thinking, critical thinking skills, innovation, and high professional ethics who could bring positive changes in our society.

Program Educational Objectives (PEOs):

The BS Mathematics program is aimed at imparting quality education of mathematics to the youth of Mirpur division and the surrounding districts, at an affordable cost. The program will give an opportunity to the talented youth to satiate their desire to learn and excel in mathematics. The program will meet the demand of skilled mathematicians in the local job market. The objectives of the BS program also include: to teach students basic concepts of mathematics, to empower them with analytical and computational skills, to develop critical thinking, and to develop professional approach and work ethics. Moreover, the program is designed in such a way that the students can learn advanced mathematical concepts through the course work and the semester projects.

Program Learning Objectives (PLOs):

The curriculum of the BS program is very diverse. During the first 4 semesters, beside some of the fundamental mathematics courses, the students also take many general and compulsory courses recommended by HEC new Education Policy like Quantitative Reasoning I, Quantitative Reasoning II, Civics and Community Engagement, Ideology and constitution of Pakistan, etc. These courses are so designed that students get useful knowledge and skills



Admission Criterion:

- Must have passed F.Sc. (Pre-Engineering)/ ICS or Intermediate with Mathematics/ Mathematics, Statistics & Computer with at least 45% marks.
- Minimum 45 % marks in matric and intermediate
- As per HEC requirement for admission, DAE with 60 %

Scholarships Offered:

- | | |
|---|--|
| 1. HEC-Need Based Scholarship Program | 6. Student's Guardian Insurance Scheme |
| 2. MUST-Need Based Scholarship | 7. HBL Foundation Scholarship Scheme |
| 3. MUST Merit-Based Scholarship | 8. Balochistan Educational Endowment Fund (BEEF) |
| 4. Professional Education Foundation (PEF) | 9. Pak-Scottish Scholarship for Women and Girls |
| 5. Punjab Educational Endowment Fund (PEEF) | |

Duration:

8-14 Semesters

Scheme of Study BS Mathematics

1 st Year				
Semester-I				
Course Code	Course Title	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
MATH-1101	Calculus-I	3	0	3
BIOT-1102	Introduction to Microbiology	2	1	3

ENG-1107	Functional English	3	0	3
ISL-1112	Islamic Studies	2	0	2
QTR-1124	Quantitative Reasoning 1	3	0	3
ICT-1126	Application of information and communication technologies	2	1	3
HQT-1128	Holy Quran with Translation			S/U

Semester-II

Course Code	Course Title	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
MATH-1201	Calculus-II	3	0	3
MATH- 1202	Linear Algebra-I	3	0	3
ENG-1207	Expository writing	3	0	3
PHY-1218	Physics -I	3	3	3
QTR-1224	Quantitative Reasoning II	3	0	3
ICP-1227	Ideology and Constitution of Pakistan	2	0	2

2nd Year

Semester-III

Course Code	Course Title	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
MATH-2301	Calculus-III	3	0	3
MATH-2302	Linear Algebra-II	2	0	2
MATH-2303	Mathematical Statistics I	3	0	3
MATH-2304	Mechanics-I	3	0	3
CCE-2325	Civic and Community Engagement	2	0	2



One Optional				
PSY-2319	Introduction to Sociology	2	0	2
HRM-2309	HR Management	2	0	2
IES-2330	Introduction to Environmental Sciences	2	0	2
Semester-IV				
Course Code	Course Title	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
ARA-2401	Arabic	2	0	2
MATH-2402	Differential Equations I	2	0	2
MATH-2403	Mathematical Statistics II	3	0	3
MAT-2404	Mechanics-II	3	0	3
MATH-2405	Metric Spaces	2	0	2
ETR-2408	Entrepreneurship	2	0	2
One Optional				
MATH-2406	Business Mathematics	3	0	3
IR-2410	Introduction to International Relations	3	0	3
LAW-2411	Introduction to Law	3	0	3
OB-2416	Organizational Behavior	3	0	3
PSY-2419	Educational Psychology	3	0	3
3 rd Year				
Semester-V				
Course Code	Course Title	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
MATH-3501	Real Analysis-I	3	0	3
MATH-3502	Differential Equations II	3	0	3
MATH-3503	Differential Geometry-I	3	0	3
MATH-3504	Analytical Mechanics	3	0	3

MATH-3505	Topology	3	0	3
MATH-3506	Abstract Algebra	3	0	3
Semester-VI				
Course Code	Course Title	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
MATH-3601	Real Analysis-II	3	0	3
MATH-3602	Partial Differential Equations	3	0	3
MATH-3603	Numerical Methods-I	3	0	3
MATH-3604	Complex Analysis	3	0	3
MATH-3605	Tensor Analysis	2	0	2
MATH-3606	Scientific Programming	2	1	3
4 th Year				
Semester-VII				
Course Code	Course Title	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
MATH-4701	Mathematical Physics	3	0	3
MATH-4702	Functional Analysis	3	0	3
MATH-4703	Internship /Field Experience	3	0	3
Two Optional Courses				
MATH-4704	Measure Theory	3	0	3
MATH-4705	Numerical Methods II	3	0	3
MATH-4706	Fluid Mechanics-I	3	0	3
MATH-4707	Discrete Structures	3	0	3
MATH-4708	Special Functions	3	0	3
MATH-4709	Quantum Mechanics-I	3	0	3
MATH-4710	Ring Theory	3	0	3



MATH-4711	Analytical Dynamics	3	0	3
MATH-4712	Approximation Theory	3	0	3
MATH-4713	Differential Geometry-II	3	0	3
MATH-4714	Electromagnetic Theory-I	3	0	3
MATH-4715	Introduction to Univalent Functions	3	0	3
Semester-VIII				
Course Code	Course Title	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
MATH-4801	Integral Equations	3	0	3
MATH-4802	Capstone Project	3	0	3
One Optional Course				
Course Code	Course Title	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
MATH-4803	Optimization Theory	3	0	3
MATH-4804	Fluid Mechanics-II	3	0	3
MATH-4805	Mathematical Modeling	3	0	3
MATH-4806	Fractional Calculus	3	0	3
MATH-4807	Algebraic Topology	3	0	3
MATH-4808	Mathematical Systems Theory	3	0	3
MATH-4809	Dynamical Systems	3	0	3
MATH-4810	Quantum Mechanics-II	3	0	3
MATH-4811	Introduction to Combinatorics	3	0	3
MATH-4812	Variational Inequalities	3	0	3
MATH-4813	Theory of Elasticity	3	0	3
MATH-4814	Electromagnetic Theory-II	3	0	3

MATH-4815	Special Theory of Relativity	3	0	3
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Bachelor of Science in Mathematics, Bridging Semester (Lateral Entry)

Bridging Semester/Courses (ADS Annual System) Four to six bridging courses (12-18 Credit Hours) will be offered as deficiency courses. The deficiency courses will be decided by the Department and may be offered in the bridging semester or with regular semesters as additional courses.

Duration:
4-8 Semesters Total Credit Hours: 65

Scheme of Study BS Mathematics Bridging (SP-24)

Semester-V				
Course Code	Course Title	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
MATH-3501	Real Analysis-I	3	0	3
MATH-3502	Differential Equations II	3	0	3
MATH-3503	Differential Geometry-I	3	0	3
MATH-3504	Analytical Mechanics	3	0	3
MATH-3505	Topology	3	0	3
MATH-3506	Abstract Algebra	3	0	3
Semester-VI				
Course Code	Course Title	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
MATH-3601	Real Analysis-II	3	0	3



MATH-3602	Partial Differential Equations	3	0	3
MATH-3603	Numerical Methods-I	3	0	3
MATH-3604	Complex Analysis	3	0	3
MATH-3605	Tensor Analysis	2	0	2
MATH-3606	Scientific Programming	2	1	3

Semester-VII				
Course Code	Course Title	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
MATH-4701	Mathematical Physics	3	0	3
MATH-4702	Functional Analysis	3	0	3
MATH-4703	Internship /Field Experience	3	0	3
Two Optional Courses				
MATH-4704	Measure Theory	3	0	3
MATH-4705	Numerical Methods II	3	0	3
MATH-4706	Fluid Mechanics-I	3	0	3
MATH-4707	Discrete Structures	3	0	3
MATH-4708	Special Functions	3	0	3
MATH-4709	Quantum Mechanics-I	3	0	3
MATH-4710	Ring Theory	3	0	3
MATH-4711	Analytical Dynamics	3	0	3
MATH-4712	Approximation Theory	3	0	3
MATH-4713	Differential Geometry-II	3	0	3
MATH-4714	Electromagnetic Theory-I	3	0	3

MATH-4715	Introduction to Univalent Functions	3	0	3
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Semester-VIII				
Course Code	Course Title	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
MATH-4801	Integral Equations	3	0	3
MATH-4802	Capstone Project	3	0	3
One Optional Course				
Course Code	Course Title	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
MATH-4803	Optimization Theory	3	0	3
MATH-4804	Fluid Mechanics-II	3	0	3
MATH-4805	Mathematical Modeling	3	0	3
MATH-4806	Fractional Calculus	3	0	3
MATH-4807	Algebraic Topology	3	0	3
MATH-4808	Mathematical Systems Theory	3	0	3
MATH-4809	Dynamical Systems	3	0	3
MATH-4810	Quantum Mechanics-II	3	0	3
MATH-4811	Introduction to Combinatorics	3	0	3
MATH-4812	Variational Inequalities	3	0	3
MATH-4813	Theory of Elasticity	3	0	3
MATH-4814	Electromagnetic Theory-II	3	0	3
MATH-4815	Special Theory of Relativity	3	0	3



M.Phil. Mathematics

The M. Phil programs in mathematics was launched in 2010. It aimed at imparting quality education to the youth of Mirpur and the surrounding districts, at an affordable cost. The program gave an opportunity to the talented youth to satiate their desire to learn and excel in mathematics. The core objectives of the program include: to teach students basic concepts of mathematics, to empower them with analytical and computational skills, to develop critical thinking, and to develop professional approach and work ethics. Moreover, the program is designed in such a way that the students can learn advanced mathematical concepts through the course work and projects and finally a thesis of 6 credit hours. Alhamdulillah, a large number of students took advantage of this opportunity at the door step with minimum cost. These students are now playing very active role at various positions in the state and elsewhere in Pakistan. Some of these scholars are also pursuing higher education in the renowned institutions of the world.

Program Mission:

The MPhil Program in the Department of Mathematics, MUST, Mirpur, AJ&K is focused to provide a research conducive environment for learning to nurture intellectual leadership equipped with critical thinking, problem solving skills and innovation required for higher education.

Program Educational Objectives (PEOs):

The objectives of the MPhil program also include: to teach students basic concepts of mathematics, to empower them with analytical and computational skills, to develop critical thinking, and to develop professional approach and work ethics. Moreover, the

program is designed in such a way that the students can learn advanced mathematical concepts through the course work and the semester projects.

Program Learning Objectives (PLOs):

The curriculum for MPhil program is so designed that the students undertaking research in this department will have a chance to learn not only the fundamental courses of mathematics, but also advanced courses related to their area of specialization and interest. Fundamental and emerging specializations in the domain of mathematics, like systems and control, computational and theoretical fluid dynamics, advanced complex analysis, mathematical modelling of biological systems, and applied and theoretical statistics etc., will be offered as area of research for graduate students at this department. The mathematics department is also providing support to other engineering and sciences departments of MUST, so upon successful completion of the courses taught by mathematics faculty, students will be able to:

PLO-01: Apply knowledge of mathematics, science, and engineering fundamentals to the solution of complex problems involved in different areas of engineering and sciences.

PLO-02: Identify, formulate, search literature, and analyze mathematical models governing laws of physics and other engineering sciences.

PLO-03: Design solution strategy for mathematical models arising in aerospace engineering, electrical engineering, mechanical engineering, and other science and engineering disciplines.

PLO-04: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including



prediction and modeling the physical phenomena with an understanding of the limitations.

PLO-05: Communicate effectively on mathematical activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, give and receive instructions effectively.

PLO-06: Apply ethical principles and exhibit commitment to professional ethics, responsibilities and norms of the profession.

Admission Criterion:

- BS or MSc or Equivalent Degree in Mathematics with CGPA 2.50 or above (for semester system degree) or 2nd division (for annual system) with no 3rd division in the academic record.
- GAT General test by NTS with minimum 50% cumulative score.
- As per MUST and HEC 2023 Policy

Duration:

4-8 Semesters

Scheme of Study (M.Phil. Mathematics)

COURSE WORK	24
Seminar	01
Thesis	06
Research Methodology and Scientific Writing	S/U

*This course will be a non-credit course. This will be offered in 3rd semester when students start their thesis. This will be an S/U based course, but students have to pass it for completing the degree requirements. Its assessments will be based on home assignments.

In the following, a list of core courses is given. A student will have to complete 12 credit hours (4 courses) of his/her course work from these courses.

Course Code	Course Title	Credit Hrs
MAT-701	Advanced Mathematical Physics	03
MAT-702	Advanced Complex Analysis	03
MAT-703	Advanced Topology	03
MAT-704	Advanced Abstract Algebra	03
MAT-705	Advanced Numerical Analysis	03
MAT-706	Advanced Partial Differential Equations	03

Elective Courses (12 credit hrs.)

In the following, a list of elective courses is given. A student will have to complete 12 credit hours of his/her course work from these courses.

Course Code	Course Title	Credit Hrs
MATH-707	Geometric Functions Theory	03
MATH-708	Advanced Optimization Theory	03
MATH-709	Advanced Mathematical Modeling	03
MATH-710	Optimal Control	03
MATH-711	Mathematical Techniques for Boundary Value Problems	03
MATH-712	Non-Newtonian Fluid Mechanics	03
MATH-713	Fundamentals of the Theory of Fluids	03
MATH-714	Group Methods for Differential Equations	03
MATH-715	Fundamentals of Finite Element Methods	03



MATH-716	Advanced Integral Equations	03
MATH-717	Approximation Theory	03
MATH-718	Complex Analysis of Several Variables	03
MATH-719	Advanced Analytical Dynamics	03
MATH-720	Introduction to Robotics	03
MATH-721	Stochastic Processes	03
MATH-722	Estimation Theory	03
MATH-723	Time Series	03
MATH-724	Mathematical Ecology	03
MATH-725	Biomathematics	03
MATH-726	Advances in Discrete Mathematics and Applications	03
MATH-727	Graph Theory	03
MATH-728	Lie Algebra	03
MATH-729	Fuzzy Algebra	03

PhD Mathematics

The PhD Program in Mathematics is started in Spring-2015. This program is aimed at imparting quality education at an affordable cost. The program provided opportunity to the talented youth to excel in mathematics. The core objectives of the program to empower students with analytical and computational skills which develop the critical thinking and professional approach and work ethics. Moreover, the program is designed in such a way that the scholars can learn advanced mathematics and work in a research conducive environment of MUST and share wisdom through collaboration in research projects.

Program Educational Objectives (PEOs):

Our students will be equipped not only with advanced mathematical tools but also acquire skill set needed to apply mathematics towards real life problems in different fields of engineering, sciences, economics, business and finance, etc. Moreover, our graduates will be able to:

- Collaborate with Engineers and scientists from industry and academia in their research/projects to promote the industry-academia linkages;
- Promote the culture of interdisciplinary novel research and produce fundamental & applied quality research in Pakistan.
- Contribute through active research in the emerging areas of science and engineering, for instance, systems and control, computational and theoretical fluid dynamics, advanced complex analysis, mathematical modelling of biological systems, and statistics etc.

Program Learning Objectives (PLOs):

The curriculum for PhD program is so designed that the students undertaking research in this department will have a chance to learn not only the fundamental courses of mathematics, but also advanced courses related to their area of specialization and interest. Fundamental and emerging specializations in the domain of mathematics, like systems and control, computational and theoretical fluid dynamics, advanced complex analysis, mathematical modelling of biological systems, and applied and theoretical statistics etc., will be offered as area of research for graduate students at this department. The mathematics department is also providing support to other engineering and sciences departments of MUST, so upon successful completion of the courses taught by mathematics faculty, students will be able to:



PLO-01: Apply knowledge of mathematics, science, and engineering fundamentals to the solution of complex problems involved in different areas of engineering and sciences.

PLO-02: Identify, formulate, search literature, and analyze mathematical models governing laws of physics and other engineering sciences.

PLO-03: Design solution strategy for mathematical models arising in aerospace engineering, electrical engineering, mechanical engineering, and other science and engineering disciplines.

PLO-04: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling the physical phenomena with an understanding of the limitations.

PLO-05: Communicate effectively on mathematical activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive instructions effectively.

PLO-06: Apply ethical principles and exhibit commitment to professional ethics, responsibilities and norms of the profession

Scheme of Study Detail		
Semester-I		
Following advanced courses of Mathematics will be offered in this semester.		
1. Elective I	2. Elective II	3. Elective III
Semester-II		
Following foundation courses of the specialized areas will be offered in this semester.		
1. Elective IV	2. Elective V	3. Elective VI
Semester-III and IV		

Students will complete his/her course work (if it is not finished in the first two semesters) and clear the Comprehensive Examination (Written and Oral) by the end of the 4th semester by adopting HEC policy 2023.

Semester-V and VI

Students will submit synopsis in the 5th semester to the relevant body and after approval of the synopsis, research work will start formally. The two Seminars will be evaluated after the submission of synopsis and before the public Defense of the thesis. After completing the research work and the degree award requirements, the process for the public defense will be started. The students who can't finish their thesis by the end of the 6th semester, will seek approval from the relevant authority (AS&RB) for an extension to complete their degree.

Scheme of Study (PhD in Mathematics)

Duration	3 - 8 Years
Courses	18 Credit Hours
Seminar	02 Credit Hours
Thesis	09 Credit Hours
Total	29 Credit Hours

List of Courses for PhD Program		
A. Compulsory Requirements		
Course Code	Course Title	Credit Hrs
MAT-897	Seminar I	01
MAT-898	Seminar II	01
MAT-899	Thesis	09
MAT-896 Comprehensive Examination (Written & Oral) P/F		
Elective Courses* (18 credit hrs)		



In the following, a list of elective courses is given. A student will have to complete 18 credit hours of his/her course work from these courses on the recommendation of his/her supervisor.

MATH-801	Mathematical Analysis	03
MATH-802	Riemanian Geometry	03
MATH-803	Mathematical Techniques	03
MATH-804	Advanced Abstract Algebra	03
MATH-805	Finite Element Methods	03
MATH-806	Advanced Partial Differential Equations	03
MATH-807	Advanced Functional Analysis	03
MATH-808	Variational Inequalities	03
MATH-809	Convex Analysis	03
MATH-810	Parameter Estimation and Sensitivity Analysis	03
MATH-811	Semigroups in Geometric Functions Theory	03
MATH-812	Differential Subordination Theory and Applications	03
MATH-813	Conformal Mappings	03
MATH-814	Perturbation Methods	03
MATH-815	Electro-dynamics	03
MATH-816	Magneto-hydro-dynamics	03
MATH-817	Fundamentals of Turbulence	03
MATH-818	Lie Group Analysis of Differential Equations	03
MATH-819	Selected Topics in Applied Mathematics	03

MATH-820	Selected Topics in Pure Mathematics	03
MATH-821	Numerical Solutions of PDEs	03
MATH-822	Design Methods for Control Systems	03
MATH-823	Optimal State Estimation	03
MATH-824	Linear Matrix Inequalities	03
MATH-825	Stochastic Differential Equations	03
MATH-826	Fixed Point Theory and Applications	03
MATH-827	Integral Inequalities	03
MATH-828	Banach Algebras	03
MATH-829	Harmonic Functions Theory	03
MATH-830	Cosmology	03
MATH-831	Bifurcation and Chaos	03
MATH-832	Nonlinear Systems and Control	03

*Apart from this list, a student may also register in a course with M.Phil. class with the consent of his/her supervisor provided the student did not take this course already while doing M.Phil.



Award and Honor of the Department of Mathematics

Dr. Taimoor Salahuddin received his Ph.D. degree from QAU (Quaid-i-Azam), Islamabad in 2016. His journal research interests focus on numerical methods and fluid dynamics. After completing his Ph.D. degree, he joined MUST university as an Assistant Professor in 2016. He has more than 200 plus publications in ISI impact factor journals. His h-index is 42 and I-index 112. He has more than 5000 research citations. He is also the solo author of the international book “Numerical Technologies in MATLAB”. published by Taylor and Francis. He has presented his research work in seven international conferences. He has produced 17 MPHIL and 1 PHD student. From the past five years his name continuously appears in the top 2 % research scientists list released by the Stanford University, USA and Elsevier. He received the highest citation award from the university in 2020. He has been selected as the best researcher of the university for the year July 2023-June 2024.



Dr. Taimoor Salahuddin
Assistant Professor
Department of Mathematics



ALUMNI MESSAGES

As an alumna of the Department of Mathematics, MUST Mirpur AJK, I would like to express my heartfelt gratitude for the exceptional education and support, I received during my time at the university. The Mathematics Department played a crucial role in shaping my academic journey and providing me with a strong foundation in mathematical principles. The dedicated faculty members' expertise and passion for teaching instilled in me a deep appreciation for the subject. I commenced my graduation program in session 2013-17 and during my educational career at Department of Mathematics, the inclusive learning environment, extracurricular activities like being sports organizer and ambassador for organizing different events in the university and other universities as well fostered collaboration and enriched my overall experience. I am proud to share that after completing my graduation, I pursued a commission in the Pakistan Army in 37th Graduate Course and posted in 31st Cavalry Regiment of Armoured Corps of Pakistan Army. The problem-solving skills, critical thinking abilities, and discipline fostered during my time at MUST prove to be invaluable during my military training and subsequent service.



Captain Kamran Khan
31 Cavalry Regiment
Armoured Corps
MUST Mathematics
Alumnus

“My journey to earning a PhD in Mathematics has been a remarkable story of perseverance, dedication, and academic excellence. I began with an MSc in Mathematics from Mirpur University of Science and Technology (MUST) in 2014, where I graduated with distinction and earned a prestigious Gold Medal. I continued my studies at MUST and completed my MPhil in Mathematics in 2016.

My PhD research focused on groundbreaking techniques for passivity-preserving model order reduction in large-scale dynamical systems. I successfully defended my thesis on August 1, 2023, under the guidance of Professor Dr. Rashida Hussain.

Throughout my academic journey, the Department of Mathematics at MUST provide a dynamic and supportive atmosphere that encouraged critical thinking, collaborative learning, and hands-on research. The dedicated faculty were instrumental in mentoring students through their academic pursuits. My achievement reflects my unwavering commitment to advancing mathematical knowledge and my ability to overcome challenges through rigorous and innovative research.”



Dr. Namra Akram
M.Sc 2011-13
M.phil 2013-15
Ph.D 2016-19





DEPARTMENT OF Physics

OUR VISION

“To provide broad, innovative and quality education in Physics to contribute to greater good of community”

Degree Programs Offered

BS Physics
M.Phil. Physics
Ph.D. Physics





Chairperson:

Dr. Azhar Hussain

Tel.: +92-05827-961111

E-mail: chairperson.physics@must.edu.pk

Message from Chairperson:

We are in an exciting era of scientific discovery and technological innovation. Our department is committed to fostering excellence in both basic physics education and advanced physics research. Our faculty and students are engaged in groundbreaking research that explores the fundamental aspects of the universe, from the tiniest subatomic particles to the vastness of intergalactic environments. The efforts of the students and faculty not only contribute to the academic field but also have practical applications that benefit the society at large. We are dedicated to providing our students with a rigorous and enriching educational experience. Through a combination of theoretical knowledge and hands-on experiments, we strive to prepare students for successful careers in academia, industry, and beyond. Our collaborations with other institutions like, National Center for Physics (NCP), National Institute of Lasers and Optronics (NILOP), COMSATS Islamabad, GC University Lahore,

Institute of Space Technology (IST) Islamabad, and Department of Physics, University of Azad Jammu and Kashmir, enhance the opportunities available to our students and expand the impact of our research.

I invite you to stay connected with us through our website and social media channels. Your support and interest are invaluable to us as we continue to explore new frontiers in physics.

Dr. Azhar Hussain



Faculty members of Physics Department



PROSPECTUS 2024-25



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Dr. Azhar Hussain

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Mr. Arslan Ali

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Qualification: MPhil. (MUST)

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Introduction

Physics is devoted to the study and understanding of nature. It is considered the fundamental science which deals with the constituents, properties and evolution of the entire universe, from the smallest subatomic particles to the largest galaxies, and is concerned with the mathematical formulation of the fundamental laws of nature.

The department of Physics was established in September 2009 with the objective to prepare students for academic and industrial careers at the forefront of science and technology in the country. The department offers BS (4 years, started from Session 2018), ADS, MPhil. and PhD. degree programs. The contents of the taught courses cover both theoretical and practical knowledge with a view of feeding a skilled human

resource to meet the modern standards of the country in the field of physics and applied physics. The department has five basic teaching Laboratories; Mechanics, Electronics, Solid State Physics, Modern Physics, and Nuclear Physics. Three postgraduate research Laboratories; Laser & Spectroscopy, Materials Science and Theoretical Plasma Physics are actively producing MPhil. and PhD. research scholars. The research is an integral part of the programs, for promoting a research culture in the country in general and within the University in particular. In this connection, the department has also entered into collaboration and knowledge integration with several other universities and research institutes to carry out joint research projects.

Department Mission

“To impart quality education in physics with the aim to serve the nation by providing skilled human resource.”

Department Vision

“To provide broad, innovative and quality education in Physics to contribute to greater good of community.”

Degree Programs Offered

- BS Physics
- MPhil. Physics
- PhD. Physics

BS in Physics

The BS Physics Program was started in 2018. It is a four (04) year degree program comprising of eight (08) semesters having 120-132 Credit Hours.

Program Mission:

To produce well-rounded critical thinkers and lifelong graduates who are prepared to successfully perform in higher study or professional work in Physics, education, or relevant fields.

Program Objectives:

- This program enables the students to scientifically understand and analyze the behavior of Physics in nature.
- This program oriented the students with many interdisciplinary subjects; Electronics, Mathematics, Energy, Physics of life, Nanotechnology, Computer and Information Technology, Classical Mechanics, Quantum Mechanics, Waves, Thermodynamics and other basics of Physics.



Admission Criteria for BS in Physics Program:

Intermediate (Pre-Engineering/Medical/A-Level) or equivalent, with physics having at least 45% marks from an accredited institution. Three years engineering diploma with math and physics. No D-grade in academic career.

Scheme of Studies	
Duration:	8-14 Semesters (4-7 Years)
Degree Title	Bachelor of Science in Physics
General Education Courses	30 Cr. Hrs.
Major Courses	76 Cr. Hrs.
Interdisciplinary/allied courses	12 Cr. Hrs.
Internship *	03 Cr. Hrs.
Capstone Project	03 Cr. Hrs.
Total	124 Cr. Hrs.

Semester I		
Code	Title	Cr. Hs.
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	01 (NC)
PHY-1101	Mechanics	03
ARA-1101	Arabic (Arts G1)	02
MAT-1115	Calculus-I (ID-1)	03
ICT-1126	Applications of Information and Communication Technologies (G2)	2+1
ENG-1107	Functional English (G3)	03
PHY-1102	Lab-I	01

MAT-0115	Basic Mathematics (deficiency course offered to students who did not take Mathematics course at intermediate level, with 3 Cr. Hr. teaching per week)	--
Total		15
Semester II		
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	IP
PHY-1203	Waves and Oscillations	03
**	Social Sciences (G4)	02
MAT-1215	Calculus-II (ID-2)	03
CHEM-1204	Introduction to Inorganic Chemistry (Natural Sc.) (G5)	2+1
ENG-1207	Expository Writing (G6)	03
PHY-1204	Lab-II	01
Total		15
Semester III		
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	IP
PHY-2305	Heat and Thermodynamics	03
PHY-2306	Computational Physics	03
QTR-2324	Quantitative Reasoning-I (G7)	03
MAT-2315	Linear Algebra (ID-3)	03
ICP-2327	Ideology and Constitution of Pakistan (G8)	02



PHY-2307	Lab-III	01
Total		15

Semester IV

HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	IP
PHY-2408	Electricity and Magnetism	03
CCE-2425	Civics and Community Engagement (G9)	02
QTR-2424	Quantitative Reasoning-II (G10)	03
MAT-2415	Differential Equations (ID-4)	03
ETRE-2408	Entrepreneurship (G11)	02
ISL-2412	Islamic Studies (G12)	02
PHY-2409	Lab-IV	01
Total		16

Semester V

HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	IP
PHY-3510	Classical Mechanics	03
PHY-3511	Electromagnetic Theory-I	03
PHY-3512	Electronics-I	03
PHY-3513	Mathematical Methods of Physics-I	03
PHY-3514	Lab-V	03
Total		15

Semester VI

HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	IP
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PHY-3615	Electromagnetic Theory-II	03
PHY-3616	Electronics-II	03
PHY-3617	Mathematical Methods of Physics-II	03
PHY-3618	Solid State Physics-I	03
PHY-3619	Lab-VI	03
Total		15

Semester VII

HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	IP
PHY-4720	Atomic Physics	03
PHY-4721	Plasma Physics	03
PHY-4722	Quantum Mechanics-I	03
PHY-4723	Solid State Physics-II	03
PHY-4724	Capstone Project	03
Total		15

Semester VIII

HQT-4828	Holy Quran with Translation, Tajveed and Tafseer	IP
PHY-4825	Laser Physics	03
PHY-4826	Nuclear Physics	03
PHY-4827	Quantum Mechanics-II	03
PHY-4828	Thermal and Statistical Physics	03
PHY-4829	Lab-VII	03
PHY-4830	Internship	03
Total		18



* Internship can be offered in any of the last four regular or summer semesters, however it will be registered and graded in 8th semester.

** Course contents of General Courses are to be provided by the department/teacher concerned as per the guidelines by the HEC.

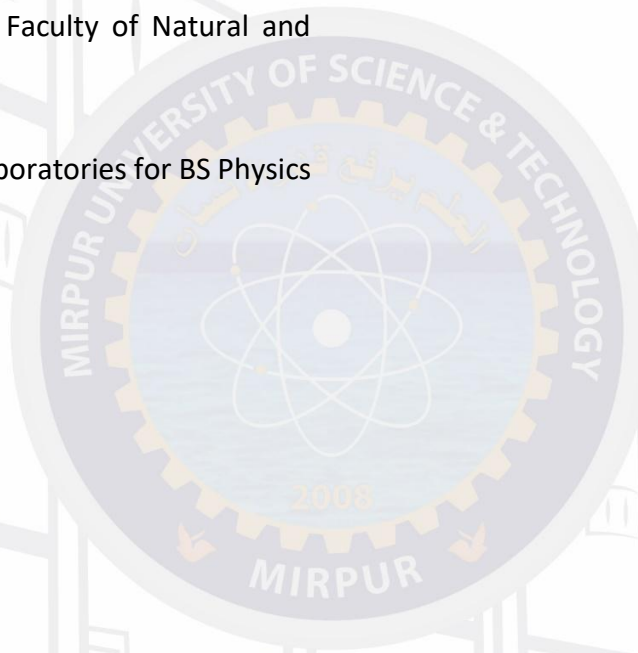
GRF = General subjects from Faculty of Natural and Applied Sciences

GOF = General subjects other than Faculty of Natural and Applied Sciences

List the BS Laboratories

The Department has five basic teaching Laboratories for BS Physics Program;

- Solid State Physics
- Mechanics
- Electronics
- Nuclear Physics
- Modern Physics





M.Phil. in Physics

About the Program:

The M.Phil. Physics Program is a two to three years study program. This program is consisted of 06 to 08 semesters. This program is consisted of 31 Credit Hours, 24 Credit Hours Theory, 01 Credit Hours Seminar and a 06 Credit Hours Thesis is compulsory.

Mission of Program:

To provide education and research facilities at an advanced level to pursue professional scientific career in viable areas of Physics.

Program Objectives:

1. To provide a solid foundation in physics and research skills needed for further higher studies.
2. To understand and solve emerging scientific problems in physics and to share outcomes with the international community.
3. To prepare the scholars for the research and development (R&D) activities.
4. To provide necessary qualifications for employment in relevant fields.
5. To develop better written and oral communication skills.

Admission Criteria for M.Phil. Physics Program:

- The eligibility criterion for admission is BS/M.Sc. in Physics, at least 65% marks in Semester system and 50% in annual system. No third division in the academic career. HEC attested degrees are required.
- **MUST UGAT or HAT HEC Test or GAT-General** (www.nts.org.pk/gat/gat.asp) conducted by the National Testing Service (NTS) with a minimum 50% cumulative score will be required at the time of admission to M.Phil.

Scheme of Studies for M.Phil. Physics Program

Duration	4-8 Semesters
Course work	24 Credit Hours
Seminar (PHY-798)	01 Credit Hours
Thesis (PHY-799)	06 Credit Hours
Total:	31 Credit Hours

Semester-I		
Course Title	Cr. Hrs.	Remarks
Mathematical Methods of Physics	03	Compulsory
Graduate Level Physics Course	03	Elective I
Graduate Level Physics Course	03	Elective II
Graduate Level Physics Course	03	Elective III
Total	12	
Semester-II		
Course Title	Cr. Hrs.	Remarks
Electrodynamics	03	Compulsory
Graduate Level Physics Course	03	Elective IV
Graduate Level Physics Course	03	Elective V
Graduate Level Physics Course	03	Elective VI
Total	12	
Semester III – IV		
Course Title	Cr. Hrs.	Remarks
Seminar (PHY-798)	01	Compulsory
Thesis (PHY-799)	06	Compulsory
Total	07	
List of Compulsory Courses for M.Phil. Program:		
Code	Course Title	Cr. Hrs.
PHY-701	Mathematical Methods of Physics	03



PhD in Physics

About the Program

The PhD Physics program is sufficiently flexible in its electives to provide an excellent preparation for careers in many different areas of pure and applied physics. Additionally, the scholars are mainly engaged in research along with initial broad training in fundamental core topics of physics as the foundation of modern technologies.

Mission of Program:

To produce motivated and committed Ph.D. degree holders who are able to do significant and independent research as an obligation to the nation.

Program Objectives:

- i. To produce individuals who can identify workable scientific problems related to physics from the literature survey.
- ii. To impart experimental/theoretical skills necessary for research in Physics.
- iii. To promote research culture and to inspire the students to contribute in local and international research activities.
- iv. The program intends to produce professional who firmly believe in research ethics.

Learning Outcomes of the Program:

- 1. A proficiency in Physics and basic sciences.
- 2. Identification and formulation of solutions concerning scientific problems.
- 3. Design and conduct experiments and to critically analyse the scientific data.
- 4. Ability to connect the knowledge of physics to the real-world problems.

Admission Criteria for Ph.D. Physics Program:

As per HEC Graduate Education Policy 2023 Guidelines

Scheme of Studies for PhD in Physics Program

Duration	6-16 Semesters
Course work	18 Credit Hours
Comprehensive Examination (Written & Oral) (PHY-896)	Non Credit
Seminar I (PHY-897)	01 Credit Hours
Seminar II (PHY-898)	01 Credit Hours
Thesis (PHY-899)	50 Credit Hours
Total	70 Credit Hours

List of elective courses for M.Phil. and Ph.D. programs

Y = 7 for M. Phil., and Y = 8 for PhD course

Course Code	Course Title	Cr. Hrs.
PHY-Y01	Advanced Nuclear Physics	03
PHY-Y02	Advanced Plasma Physics	03



PHY-Y03	Advanced Quantum Mechanics	03
PHY-Y04	Applications of Nano-Technology	03
PHY-Y05	Applied Quantum Mechanics	03
PHY-Y06	Atomic and Molecular Spectroscopy	03
PHY-Y07	Classical Theory of Fields	03
PHY-Y08	Defects in Materials and Measuring Techniques	03
PHY-Y09	Dielectric Properties of Solids	03
PHY-Y10	Electrodynamics	03
PHY-Y11	Experimental Plasma Physics	03
PHY-Y12	Experimental Techniques in Particle and Nuclear Physics	03
PHY-Y13	Fluid Dynamics	03
PHY-Y14	Fundamentals of Polarized Light	03
PHY-Y15	Group Theory	03
PHY-Y16	Laser Induced Breakdown Spectroscopy (LIBS)	03
PHY-Y17	Magnetism and Magnetic Materials	03
PHY-Y18	Material Studies by Electron Emission	03
PHY-Y19	Materials Science-I	03
PHY-Y20	Materials Science-II	03
PHY-Y21	Mathematical Methods of Physics	03
PHY-Y22	Methods and Techniques of Experimental Physics-I	03
PHY-Y23	Methods and Techniques of Experimental Physics-II	03
PHY-Y24	Nano Science and Technology	03
PHY-Y25	Non-Linear Physics-I	03

PHY-Y26	Non-Linear Physics-II	03
PHY-Y27	Optoelectronics	03
PHY-Y28	Organic Semiconductor Devices	03
PHY-Y29	Particle Physics	03
PHY-Y30	Physics of Semiconductors	03
PHY-Y31	Physics of Semiconductor Devices	03
PHY-Y32	Physics of Thin Films-I	03
PHY-Y33	Physics of Thin Films-II	03
PHY-Y34	Plasma Hydrodynamics and Controlled Fusion	03
PHY-Y35	Plasma Kinetic Theory and its Applications	03
PHY-Y36	Quantum Field Theory-I	03
PHY-Y37	Quantum Field Theory-II	03
PHY-Y38	Quantum Information Theory-I	03
PHY-Y39	Quantum Information Theory-II	03
PHY-Y40	Quantum Optics-I	03
PHY-Y41	Quantum Optics-II	03
PHY-Y42	Statistical Physics	03
PHY-Y43	Surface Science and Scanning Electron Microscopy	03

Laboratories/Research Areas for M.Phil. and PhD Physics Programs:

The department also has three research Laboratories for M.Phil. and PhD Physics programs;

- Laser & Spectroscopy Lab
- Material Science Lab
- Theoretical Plasma Physics Lab



Staff/Students participated in any International or National Event



Dr. Azhar Hussain taking shield of appreciation from H. E. Barrister Sultan Mahmood Chaudhry President of the State of Azad Jammu & Kashmir on the celebration of THE Impact Rankings (2022)



Dr. Naveed Ahmad attending 3rd World Science Congress at Porto University Portugal (2023)



Plantation Drive by Physics Department 2024



Plantation Drive by Physics Department 2024



Research Projects/Publications

Department has completed the following three (03) projects;

- **HEC Project, 0.64 Million, Principal Investigator Dr. Azhar Hussain, Assistant Professor (Project Completed Successfully).**
- **MUST ORIC Project, 0.25 Million, Principal Investigator Dr. Muhammad Ayub, Assistant Prof. (Project Completed Successfully).**
- **MUST ORIC Project, 0.25 Million, Principal Investigator Dr. Naveed Ahmad, Lecturer (Project Completed Successfully).**
- **Department published 11 research publications in the Year 2023 in the international well known Journals.**





Number of PhDs Produced

The department of Physics produced Four (04) PhD.

- **Dr. Naveed Ahmad, Session 2013-16**
- **Dr. Mahmood Akhtar, Session 2013-16**
- **Dr. Abdul Jabbar, Session 2013-16**
- **Dr. Tahir Iqbal, Session 2016-19**





Alumni Messages

	<p>Tahir Iqbal PhD in Physics 2016-2019</p>	<p>Choosing a good institution is a difficult job. I found Physics department one of the best departments in Natural Sciences. To become a Physicist was my dream and choice of MUST prove to be the best. The faculty of Physics department polished my practical skills to make me competent professional. "There is no alternate of MUST".</p>
	<p>Methab Yaqoob MPhil in Physics 2019-2021</p>	<p>Studying at MUST has given me new ideas and broad vision. The attitude of faculty members of Physics Department toward students is remarkable. Environment of MUST is conducive and character building. As a part of MUST I want to say only one thing: "Work hard and be honest".</p>
	<p>Ehtizaz Ahmed M.Phil. Physics 2019-21</p>	<p>Embark on a journey that will shape your future and empower you to be effective. Unlock your potential at Mirpur University of Science and Technology (MUST). Join the community of scholars, innovators, and leaders. World-class education, cutting-edge research, and global opportunities await for you at MUST.</p>
	<p>Zoya Khalid MSc in Physics 2018-2020</p>	<p>I am happy to be a part of MUST. I am satisfied with the teaching and experimental works. The faculty and supporting staff of the department is very cooperative. I enjoyed my time in the MUST, and I must advice my juniors to join the MUST for their bright future. "MUST is the best choice for Study"</p>



PROSPECTUS 2024-25

	<p>Kainat Latif BS in Physics 2018-2022</p>	<p>Physics is my passion, and my ambitions have always been very clear. MUST helped me in enjoying the diversity of the subjects, projects, and included all factors which keep it interesting. MUST is the most appropriate institute for females to have a great time with their studies.</p>
	<p>Anum Gul M.Sc. in Physics 2010-12</p>	<p>As an alumnus of the Physics Department at MUST I can confidently attest to the exceptional education and the opportunities department provides. After graduating, I was awarded a prestigious MS Fellowship in Medical Physics at the Pakistan Institute of Engineering and Sciences, Islamabad. My journey didn't stop there; today, I am proud to serve in a scientific organization, where I contribute to the area of Health Physics and Medical Physics, respectively. I have been honoured to receive a fully funded scholarship to pursue further studies at Hiroshima University in Japan, beginning in October 2024.</p>



DEPARTMENT OF
Statistics



Chairperson:

TASSADDAQ HUSSAIN

Tel. : +92-5827-961036

E-mail: chairperson.stats@must.edu.pk

Message from Chairperson:

The Department of Statistics is established in 2020 and has been contributing a lot in training of students at under graduate and graduate level. The core objective of the Department is to acquaint students with statistical ideas and methods. This department provides not only a good combination of pure and applied statistics but also strong knowledge of mathematical statistics which enables passed out graduates to successfully play their respective role in the country development. In the upcoming session, we are planning to offer BS programme in Statistics with data science. This programme will be generally a career oriented and provides graduates of the program with professional flexibility and exciting opportunities for rewarding careers in different fields such as biostatistics, market research, econometrics, actuarial science, and statistical computing.

Personality development of students and scholars is main focus of the department in addition to academic activities. Group discussions, tutorials and Quiz competitions are arranged to give an opportunity to the students to exchange their knowledge. The BS Program is based on theoretical and practical knowledge related to the fields of Statistics and Data Science & Technology, as per requirement of the country and abroad. The main focus of this program is not only Applied Statistics but also the Data Science which essentially plays a vital role in the general frame work of Applied Statistics, Computer Science, Engineering and various other disciplines of recent research and applications. A salient feature of these programs is the introduction of subjects of computer languages and numerical analysis for the computational statistics, whereas data science and statistical analysis are offered for the field of technical forces and research.



Faculty Members

Dr Tassaddaq Hussain

Designation Assistant Professor

Qualification PhD

Area of interest Mathematical and Applied Statistics

Email tassaddaq.stat@must.edu.pk

Amir Saghir (On Study Leave)

Designation Associate Professor

Qualification PhD

Email aamir.stat@must.edu.pk

Mr Muhammad Razaqat

Designation Lecturer

Qualification M.Phil.

Area of interest Stochastic Modelling

Email mrazaqat.maths@must.edu.pk

Ms Asma Rashid

Designation Jr. Lecturer

Qualification M.Sc.

Area of interest Applied Statistics

Email asma.maths@must.edu.pk



BS Statistics

The Mirpur University of Science and Technology (MUST) is going to start the Department of Statistics from the academic session Fall 2020. The core objective of the Department is to acquaint students with statistical ideas and methods. This department provides not only a good combination of pure and applied statistics but also strong knowledge of mathematical statistics which enables passed out graduates to successfully play their respective role in the country development.

In the upcoming session, we are planning to offer BS programme in Statistics. This programme will be generally a career oriented and provides graduates of the program with professional flexibility and exciting opportunities for rewarding careers in different fields such as biostatistics, market research, econometrics, actuarial science, and statistical computing.

Program Mission

To train the next generation professionals to gain advanced knowledge in Statistics that is required to design and implement novel methods, useful to define and solve problems with emphasis on acquisition, representation, retrieval, visualization and analysis of statistical data.

Admission Criterion:

At least 45% marks in intermediate or equivalent.

Selection Criterion:

10% Matric+40%Intermediate+50% Entry Test

Degree Requirements:

Intermediate with Statistics/Economics/Math as Subject.

Scholarships Offered:

As per University Policy.

Duration:

4 years (8 semesters)

Scheme of Study (Fall/2024) BS (4 years)

1 st Semester		
Course Code	Courses	Cr.Hrs
STA- 1101	Introductory Statistics	3+0
COM- 1105	Introduction to Computer	3+0
ENG- 1107	English-I (Functional English)	3+0
MAT-1115	Calculus-I	3+0
ISL-1112	Islamic Studies	2+0
	General-I	2+0
	General-II	3+0
Total Credit Hours		19
2 nd Semester		
Course Code	Courses	Cr.Hrs
STA- 1201	Introduction to Probability Distributions	3+0
ENG- 1207	English-II	3+0
MAT-1215	Calculus-II	3+0
PS-1217	Pakistan Studies	2+0
	General-III	3+0
	General-IV	3+0
Total Credit Hours		17



Course Code	3 rd Semester	
	Courses	Cr.Hrs
STA- 2301	Basic Statistical Inference	3+0
	Communication Skills	3+0
ENG- 2307	English-III	3+0
MAT-2315	Calculus-III	3+0
	General-V	3+0
	General-VI	3+0
Total Credit Hours		18
Course Code	4 th Semester	
	Courses	Cr.Hrs
STA- 2401	Sampling Theory	3+0
STA- 2402	Introduction to Regression Analysis and Experimental Design	3+0
STA- 2403	Applied Statistics	3+0
MAT-2415	Linear Algebra	3+0
MAT-	Differential Equations	3+0
MAT-	Numerical Methods	3+0
Total Credit Hours		18
Course Code	5 th Semester	
	Courses	Cr.Hrs
STA- 3501	Probability Theory-I	3+0
STA- 3502	Parametric Statistical Methods	3+0
STA- 3503	Sampling Techniques	3+0
STA- 3504	Econometric Theory-I	3+0
STA- 3505	Mathematical Methods for Statistics	3+0
Total Credit Hours		15
Course Code	6 th Semester	
	Courses	Cr.Hrs
STA- 3601	Probability Theory-II	3+0

STA- 3602	Experimental Design-I	3+0
STA- 3603	Statistical Inference-I (Estimation)	3+0
STA- 3604	Econometric Theory-II	3+0
STA- 3605	Research Methodology	3+0
Total Credit Hours		15
Course Code	7 th Semester	
	Courses	Cr.Hrs
STA- 4701	Experimental Design-II	3+0
STA- 4702	Statistical Inference-II (Hypothesis Testing)	3+0
STA- 4703	Statistical Quality Control	3+0
STA- 4704	Multivariate Analysis	3+0
STA- 4705	Non-Parametric Methods	3+0
Total Credit Hours		15
Course Code	8 th Semester	
	Courses	Cr.Hrs
STA- 4801	Bayesian Inference	3+0
STA- 4802	Statistical Packages	3+0
STA- 4803	Operation Research	3+0
STA- 4804	Time Series Analysis	3+0
	Elective Course	3+0
Total Credit Hours		15

Course and Credit Hour Requirements: A total of 132 credit hours (as per HEC Policy) are required to complete Bachelor of Science in Statistics



Alumni Messages



Zabair Altaf
BS Statistics

Studying at MUST has given me new ideas and broad vision. The attitude of faculty members of Statistics Department toward students is very admirable. MUST is the best choice for study.



Amber Altaf
BS Statistics

I am feeling proud to be a part of MUST Mirpur as a student of BS Statistics. The staff and teachers of the department are very cooperative, responsible and also they guide students very well. The environment of the department is very good, and I must advise my juniors to join the MUST to polish skills and to build your character. "There is no alternative of MUST."

DEPARTMENT OF
ZOOLOGY





**Chairperson:
Dr. Anser Ali**

Tel.: +92-5827-961112

E-mail: chairperson.zoology@must.edu.pk

Message from Chairperson

Welcome to the Department of Zoology!

As Chairman of the Zoology Department, it is my pleasure to introduce you to our dynamic and innovative Zoology degree programs: BS, M.Phil., and Ph.D., all dedicated to the study of animal biology. Our department is committed to providing quality education, with our degree programs taught by qualified faculty members who are actively involved in both research and teaching.

As a Zoology student at MUST, you will have the opportunity to gain experience a broad range of key aspects of modern zoology. We emphasize both theoretical knowledge and practical skills, ensuring that our students have equal opportunities for research, internships, and fieldwork. This approach allows students to apply their knowledge in real-world settings and contribute to meaningful scientific outcomes.

I hope you will have an enriching study and research experience at the Department of Zoology, MUST.



Faculty members of Zoology



Faculty Members

Dr. Anser Ali

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Qualification PhD, Post Doc
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Email: anser.zoology@must.edu.pk

Dr. Huma Ayub

Designation: Assistant Professor
Qualification: PhD
Area of interest: Fisheries
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Dr. Usman Ali

Designation: Lecturer
Qualification : PhD
Area of interest: Ecology/Wild Life
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Mrs. Samina Noor

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Area of interest: Microbiology
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Dr. Ansar Ahmed Abbasi

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Dr. Rizwan Ullah

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Mr. Rameez Nisar

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Mrs. Sundas Farooq

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Mr. Muhammad Touseef

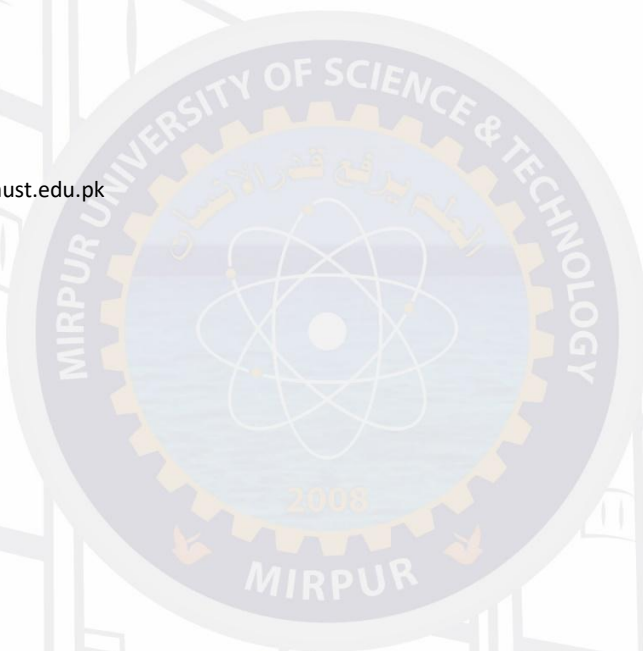
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Miss Kiran Liaqat

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Qualification : M. Phil
Area of interest: Cell Biology
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Mrs. Attoba Mushtaq

Designation : Jr. Lecturer
Qualification : M. Phil
Area of interest: Microbiology
Email: attoba.zoology@must.edu.pk





Introduction

This is the Department of Zoology at Mirpur University of Science and Technology (MUST) not only where you satisfy your questions but also your academic goals. As an active group of scholars, researchers, and students we study different aspects of the animal world starting from molecular biology and ending with ecosystem studies. This department aims to help gain a deeper understanding of the biology of animals, solving many important issues of the present day, and opening new horizons for generations to come who will become zoologists, conservationists, and heads of science. Primarily focused on interdisciplinary approaches to research and teaching, scholarship, community relations, and student success, we provide a stimulating atmosphere for those wishing to discover, master, and apply their talents in real life. Embark with us on an adventure of passion, wonder, and creativity, and become part of the stellar legacy of advancement and learning in the field of zoology.

The Department of Zoology is one of the most active departments in the Mirpur University of Science and Technology (MUST), the involving study of organisms and their genetics, morphological and physiological attributes, environmental features, and their role in the conservation of the environment. Humans have created a rapidly changing world to which animals have had to adapt. Understanding the amazing diversity of animals that share our planet helps us to understand our origins, as well as predict future evolution. Zoology is a combination of various disciplines such as Biochemistry,

Developmental Biology, Ecology, Biotechnology, Fisheries and Freshwater Biology, Genetics, Immunology, Cell and Molecular Biology, Microbiology, Plasma Biology, Physiology, Parasitology, cancer Biology and Wildlife. This subject has a significant role in human resources development, food security, environmental conservation, sustainable development, and ultimately in alleviation of poverty. The department has a unique feature of degree programs since it presents a balanced blend of the classical as well as modern trends of the new era. Every discipline has a unique importance in its place, for example, microbiology represents the basic and advanced knowledge of viruses, bacteria, and microorganisms which are mostly pathogenic and their impact on the other related fields is immense, i.e., agriculture, food pollution, etc. Biotechnology and molecular genetics are emerging broad fields that employ industrial technology in the biological synthesis of important compounds specially proteins, genetic engineering of animals, and understanding of the molecular mechanism of various genetic disorders. Our environment plays a key role in maintaining our good health, to reduce environmental pollution caused by anthropogenic activities, the study of Environmental Biology, Bioremediation, and Environmental Biotechnology is obligatory. The Department of Zoology has well-equipped laboratories that provide practical exposure to strengthen theoretical knowledge. In addition to the central library, students have free access to a wide collection of reference books, journals, and relevant reading material archived in the



departmental library and HEC's Online Digital Library. Apart from class studies, the department encourages and facilitates the students for research surveys, trips, and zoo visits. We have student counseling and discipline committees to assist our students during their stay at the department and give them guidelines to achieve their goals.

Department VISION

To be a top department in the university in capacity building of the students through high-quality education and research dealing with local, regional, and global needs and enabling them to contribute prolifically to the welfare of the society empowering future generations to protect and preserve the wonders of the animal kingdom.

Department Mission

The department strives to inculcate contextual learning, analytical, professionalism, and high moral values in the students to make them a valuable addition to society and enable them to cope with the contemporary challenges in the field of zoology.

Bachelor of Science in Zoology (BS Zoology)

The Department of Zoology stands as one of the institution's most vibrant and dynamic departments within the academic landscape of the Mirpur University of Science and Technology. BS in Zoology is a multifaceted tapestry woven from various threads of general and subject-specific knowledge, drawing upon Biochemistry, Developmental Biology, Ecology, Biotechnology, Genetics, Cell and Molecular Biology, Microbiology, Physiology, Parasitology, and Wildlife studies. These disciplines, in their fusion, contribute

substantially to the development of human resources, the assurance of food security, the conservation of our fragile environment, the pursuit of sustainable development, and ultimately, the alleviation of poverty. BS in Zoology degree program harmoniously balances the principles of classical biology with the demands of the modern era. Each sub-discipline occupies a distinctive niche, and their collective contributions are epic. In tandem with scholarly pursuits, the department nurtures a spirit of exploration and inquiry, actively encouraging students to embark on research surveys, field trips, and visits to zoological facilities. To further support our students' holistic development, we have established student counseling and discipline committees, dedicated to their well-being during their tenure within the department and guiding them toward realizing their aspirations post-graduation.

Program Objectives (POs)

- **General and Cultural Awareness:** Fosters an understanding of cultural diversity and global issues and broadens the perspective of student's history, economics, sociology, and community organization.
- **Effective Communication:** Emphasis on the enhancement of written and oral communication skills of students, both to the scientific community and the public, and developing the ability to convey complex scientific concepts clearly and effectively.
- **Comprehensive Knowledge:** To provide students with a comprehensive understanding of the fundamental principles of zoology.



- **Specialization:** To allow students to specialize in specific (major) areas of zoology according to their interests and career goals.
- **Practical Experience:** To offer opportunities for hands-on practical experience through laboratory work, field studies, and internships, enabling students to apply theoretical knowledge in real-world settings.
- **Critical Thinking and Problem-Solving:** To develop students' critical thinking abilities and problem-solving skills. Providing exposure to the students to diverse perspectives and encouraging them to analyze complex issues, fostering intellectual agility through capstone projects that can be applied to various aspects of zoological research and practice.
- **Vocational Preparedness:** To prepare students for various career paths, including research, teaching, wildlife management, conservation, and more, by providing a strong academic foundation and transferable skills. We intend to inculcate ethical values in students and a strong sense of responsibility and organize community-based activities to a possible extent.

Admission Criterion:

F. Sc Pre-Medical with at least 45% marks	OR
2 Years Associate Degree (Annual Program) in relevant subjects with a minimum of 45%(Only for Lateral Entry in Bridging Semester)	OR
2 Years Associate Degree (Semester Program) in relevant subjects with a minimum of 50%(Only for Lateral Entry in 5 th Semester)	

Duration:

8-14 Semesters

Scholarships Offered:

- | | |
|---|--|
| 1. University Merit Scholarship Scheme | 7. National Bank Scholarship |
| 2. MUST-Need Based Scholarship Program | 8. Institutions of Engineers Pakistan (Saudi Arabian Center) |
| 3. HBL Foundation Stipend Scheme (HBLFSS) | 9. AJ&K Council Scholarship Scheme |
| 4. HEC-Need Based Scholarship Programme | 10. AJ&K State Talent Scholarship Scheme |
| 5. Provincial Government Scholarship | 11. Punjab Educational Endowment Fund (PEEF) |
| 6. Benevolent fund scholarships | 12. USAID Scholarship |
| | 13. Fauji Foundation |

Scheme of Study

Program Duration:	8-14 Semesters (4-7 Academic Years)
Total number of Credit Hours:	134 (120-144)
Capstone Project Credits	03
Internship/Field Experience:	03
General Education Courses (Arts/ Humanities)	30
Interdisciplinary Courses	18
Major Courses	74
Elective Courses	06



Pre-requisites: To meet the prerequisites, theory and lab both must be passed.

First Semester				
Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-Req
ZOO-1101	Animal Diversity-I	4(3+1)	6	
BOT-1103	Diversity of Plants	3(2+1)	5	
CHEM-1104	Inorganic Chemistry	3(2+1)	5	
ENG-1107	Functional English	3(3+0)	3	
QTR-1124	Quantitative Reasoning-I	3(3+0)	3	
ICP-1127	Ideology and Constitution of Pakistan	2(2+0)	2	
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	Non-credit	1	
Total		18	25	
Second Semester				
Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-Req
ZOO-1201	Animal Diversity-II	4(3+1)	6	
ZOO-1202	Cell Biology	3(2+1)	5	
BOT-1203	Plant Systematics, Anatomy and Development	3(2+1)	5	
CHEM-1204	Organic Chemistry	3(2+1)	5	
PHY-1218	Fundamentals of Physics	3(2+1)	5	
ISL-1212	Islamic Studies/Ethics	2(2+0)	2	
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	Non-credit	1	

Total		18	29	
Third Semester				
Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-Req
ZOO-2301	Animal Form and Function-I	4(3+1)	6	
BOT-2303	Cell Biology, Genetics and Evolution	3(2+1)	5	
ARA-2301	Arabic	2(2+0)	2	
ENG-2307	Expository Writing	3(3+0)	3	
QTR-2324	Quantitative Reasoning-II	3(2+1)	5	
SOC-2321	Introduction to Sociology OR Fundamentals of Economics	2(2+0)	2	
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	Non-credit	1	
Total		18	24	
Fourth Semester				
Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-Req
ZOO-2401	Animal Form and Function-II	4(3+1)	6	
ZOO-2402	General Biochemistry	3(2+1)	5	
ICT-2426	Applications of information and communication technologies	3(2+1)	5	
CHEM-2404	Analytical Chemistry	3(2+1)	5	



CCE-2425	Civic and Community Engagement	2(2+0)	2	
ETR-2408	Entrepreneurship	2(2+0)	2	
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	Non-credit	1	
Total		18	26	
Fifth Semester				
Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-Req
ZOO-3501	Physiology	4(3+1)	6	
ZOO-3502	Biochemistry-II	4(3+1)	6	
ZOO-3503	Biostatistics	3(2+1)	5	
ZOO-3504	Ecology	3(2+1)	5	
ZOO-3505	Zoogeography	3(3+0)	3	
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	Non-credit	1	
Total		18	26	
Sixth Semester				
Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-Req
ZOO-3601	Genetics	4(3+1)	6	
ZOO-3602	Developmental Biology	4(3+1)	6	
ZOO-3603	Principles of Systematics	3(2+1)	5	
ZOO-3604	Molecular Biology	3(2+1)	5	

ZOO-3605	Evolution and Paleontology	3(2+1)	5	
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	Non-credit	1	
Total		17	28	
Seventh Semester				
Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-Req
ZOO-4701*	Research Methodology	3(2+1)	5	
ZOO-4702*	Wildlife	3(2+1)	5	
ZOO-4703*	Biological Techniques	3(1+2)	5	
ZOO-47**	Elective	3(2+1)	5	
ZOO-47**	Elective	3(2+1)	5	
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	Non-credit	1	
Total		15	26	
Eighth Semester				
Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-Req
ZOO-4801*	Animal Behavior	3(3+0)	3	
ZOO-48**	Elective	3(2+1)	5	
ZOO-48**	Elective	3(2+1)	5	



ZOO-4847	Field Experience/ Internship***	3(0+3)	9	
ZOO-4848	Capstone Project	3(0+3)	9	
HQT-1128	Holy Quran with Translation, Tajveed and Tafseer	Non- credit	1	
Total		15	32	

*In the 7th and 8th semesters, students may be recommended to take these courses. However, depending on faculty availability and student preferences, they might have the option to choose different major courses instead.

**Any course can be opted from the list of courses.

***Field Experience/Internship can be started in summer break after the 4th semester; however, credit will be given in the 8th semester.

List of Elective Courses For Bs-4 Years Program In Zoology V Semester

Course code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-Req
ZOO-4701	Research Methodology	3(2+1)	5	
ZOO-4702	Wildlife	3(2+1)	5	
ZOO-4703	Biological Techniques	3(1+2)	7	
ZOO-4704	Neurophysiology	3(2+1)	5	

ZOO-4705	Immunology	3(2+1)	5	
ZOO-4706	Hematology	3(2+1)	5	
ZOO-4707	Biotechnology-I	3(2+1)	5	
ZOO-4708	Biotechnology-II	3(2+1)	5	
ZOO-4709	General Toxicology	3(2+1)	5	
ZOO-4710	Human Genetics	3(2+1)	5	
ZOO-4711	General Microbiology	3(2+1)	5	
ZOO-4712	General Parasitology	3(2+1)	5	
ZOO-4713	Invertebrata	3(2+1)	5	
ZOO-4714	General Entomology	3(2+1)	5	
ZOO-4715	Principles of Fish Biology	3(2+1)	5	
ZOO-4716	Fisheries & Aquaculture	3(2+1)	5	
ZOO-4717	Limnology-A	3(2+1)	5	
ZOO-4718	Principles of Herpetology	3(2+1)	5	
ZOO-4719	Biodiversity	3(2+1)	5	
ZOO-4720	Histology	3(2+1)	5	
ZOO-4721	Reproductive Physiology	3(2+1)	5	



ZOO-4722	Lab and Biosafety	3(2+1)	5	
ZOO-4723	Nano-Bioscience	3(2+1)	5	
ZOO-4724	Economic Zoology	3(2+1)	5	
ZOO-4747	Field/Internship	3	-	
ZOO-4849	Research Project	3	-	

List and Course Contents of Elective/Optional/Special Courses For Bs-4 Years Program In Zoology 8th Semester

Course Code	Course Title	Cr. Hrs.	Ct. Hrs.	Pre-Req
ZOO-4801	Animal Behaviour	3	3	
ZOO-4802	Endocrinology	3(2+1)	5	
ZOO-4803	Bioinformatics	3(2+1)	5	
ZOO-4804	Physiological Systems and Adaptations	3(2+1)	5	
ZOO-4805	Molecular Physiology	3(2+1)	5	
ZOO-4806	Bioremediation & Environmental Biotechnology	3(2+1)	5	
ZOO-4807	Medical Biochemistry	3(2+1)	5	

ZOO-4808	Taxidermy	3(2+1)	5	
ZOO-4809	Medical Microbiology	3(2+1)	5	
ZOO-4810	Applied Microbiology	3(2+1)	5	
ZOO-4811	Medical Parasitology	3(2+1)	5	
ZOO-4812	Helminthology	3(2+1)	5	
ZOO-4813	Vector Biology	3(2+1)	5	
ZOO-4814	Animal Pests and Disease Producing Organisms	3(2+1)	5	
ZOO-4815	Fish Physiology	3(2+1)	5	
ZOO-4816	Ichthyology (Fish Morphology)	3(2+1)	5	
ZOO-4817	Limnology-B	3(2+1)	5	
ZOO-4818	Vertebrata	3(2+1)	5	
ZOO-4819	Ornithology	3(2+1)	5	
ZOO-4820	Mammalogy	3(2+1)	5	
ZOO-4821	Restoration Ecology and Sustainable Development	3(2+1)	5	
ZOO-4822	Environmental Issues	3(2+1)	5	
ZOO-4823	Molecular Genetics	3(2+1)	5	



ZOO-4824	Advanced Instrumental Techniques	3	3	
ZOO-4825	Cell and Tissue Culture	3(2+1)	5	
ZOO-4847	Field Experience/Internship*	3	-	
ZOO-4848	Capstone Project	3	-	

Bachelor of Science in Zoology (Lateral Entry) (Bridging Semester) Structure of Degree Program

Sr. No.	Course Domain	No. of Courses	Credit Hours
1	Associate Degree Program (A variety of general (breadth) and subject (depth) courses offered in different combinations for two years of studies in ADP).	-	50
2	Deficiency Courses (General and subject-specific courses that are required to be offered in the bridging semester in order to bridge the breadth	7-8	20

	and depth gap of knowledge between ADP and BS in Zoology)		
3	Subject-Specific Major and Minor Courses Discipline-specific courses, including research projects or special courses offered in the 4th to 8th semester along with existing sessions of BS in Zoology.	20	64
	Total	-	134

List of Courses for Bridging Semester, Bachelor of Science In Zoology (Lateral Entry)*

Code	Course Title	Cr. Hrs.	Ct. Hrs.
CCE-2425	Civic and Community Engagement	2(2+0)	2
CHEM-1204	Organic Chemistry	3(2+1)	5
CHEM-2404	Analytical Chemistry	3(2+1)	5
ECO-2406	Fundamentals of Economics	3(3+0)	5
ENG-2307	Expository Writing	3(3+0)	3
ETRN-2408	Entrepreneurship	2(2+0)	2



ICT-2426	Applications of information and communication technologies	3(2+1)	5
PHY-1218	Fundamentals of Physics	3(2+1)	5
PSY-2419	Psychology	2(2+0)	2
QTR-1124	Quantitative Reasoning-I	3(3+0)	3
QTR-2324	Quantitative Reasoning-II	3(2+1)	5
SOC-2321	Introduction to Sociology	2(2+0)	2
ZOO-1201	Animal Diversity-II	4(3+1)	6
ZOO-2401	Animal Form and Function-II	4(3+1)	6

Total Credit Hours: ADP (50) +20+ 17+17+15+15=134

**These courses will be available for graduates of the ADP annual scheme. Graduates of the ADP semester system will be placed in the 5th semester. Upon successfully completing the bridging semester, they will advance to the 5th semester and continue following the Scheme of Studies devised for BS Session 2023-27.*

MASTER OF PHILOSOPHY IN ZOOLOGY (M. Phil Zoology)

Introduction

Master of Philosophy degree is a research-based specialization that provides systematic research, critical analysis, problem recognition, and solution-designing abilities to a scholar. One-year

academic activities are followed by one-year research activity. At the end of the research, a thesis written by a scholar is evaluated by internal and external examiners. Public defense is notified by the department and scholars defend theses publicly. A scholar needs strong communication skills, usually developed through assignments and seminar presentations held in earlier semesters. The degree is awarded at the end of a successful public defense. Master of Philosophy in zoology gives wide chances of jobs in public and private sector DAIs, colleges, research organizations, industries, and abroad institutions and would pave the way for doctoral studies.

Program Objectives

- To enhance the professional capabilities of scholars and empower them with the most advanced and contemporary comprehension of zoology.
- To provide healthier opportunities and the latest research methodologies for cutting-edge basic and applied research relevant to national and global needs and develop scholars' innovative, novel, and critical perspectives on research problems.
- To develop strong communication and managerial skills and a multidisciplinary and collaborative scientific culture among scholars.
- To inculcate ethical values in scholars for the betterment of humanity.
- To provide students with opportunities to publish their research work in reputed national and international journals.



Program Outcomes

- After obtaining a degree in Master of Philosophy in Zoology;
- The scholars have an extensive base in the up-to-date and applied research fields of the subject and can hunt their specialized area of research.
- The scholars encompass a deep understanding of the zoological phenomenon, critiquing, planning, analysis of quantitative and qualitative research in the area of interest and starting a meaningful solution to a research problem.
- Scholars would be able to prosper their teamwork abilities, leadership role, and performance, and establish relationships with other universities and industries.
- Scholars have a profound comprehension of professional and ethical standards and must continue these values as a benchmark for the quality of education in zoology.
- Publication would be made in reputed HEC-recognized national and international journals.

SCHEME OF STUDY FOR MASTER OF PHILOSOPHY IN ZOOLOGY

Duration	4-8 Semesters
Courses	24 Credits
Seminar	01 Credit
Thesis	06 Credits
Total Credits	31 Credits

Admission Criteria

As per HEC rules.

First Semester

CODE	COURSE	Credit Hrs.
ZOO-7**	Courses will be offered based on faculty availability and research focus.	3
ZOO-7**		3
ZOO-7**		3
ZOO-7**		3
Total Credits		12

Second Semester

CODE	COURSE	Credit Hrs.
ZOO-7**	Courses will be offered based on faculty availability and research focus.	3
ZOO-7**		3
ZOO-7**		3
ZOO-7**		3
Total Credits		12

Third Semester

CODE	COURSE	Credit Hrs.
ZOO-798	Seminar	1
ZOO-799	Thesis	06*
Total Credits		01

*Thesis will be registered in 3rd semester; however, credits will be counted in 4th semester.

Forth Semester

CODE	COURSE	Credit Hrs.
ZOO-799	Thesis	06
Total Credits		06



List of Elective Courses for Master of Philosophy in Zoology

CODE	COURSE	Credit Hrs.
ZOO-701	Human Embryology and Teratology	3
ZOO-702	General and Comparative Endocrinology	3
ZOO-703	Advances in Molecular Cell Biology	3
ZOO-704	Advances in Molecular Genetics	3
ZOO-705	Advances in Human Genetics	3
ZOO-706	Bioethics	3
ZOO-707	Bioinformatics	3
ZOO-708	Cancer Genetics	3
ZOO-709	Systemic Toxicology	3
ZOO-710	Fundamentals of Microbiology	3
ZOO-711	Biology and Control of Vertebrate Pests	3
ZOO-712	Fish Physiology and Breeding	3
ZOO-713	Advances in Aquaculture	3
ZOO-714	Conservation Biology of Wildlife	3
ZOO-715	Wildlife Diversity of Pakistan and AJ&K	3
ZOO-716	Advances in Environmental Biology	3
ZOO-717	Fundamentals of Biotechnology	3
ZOO-718	Instrumental Techniques	3
ZOO-719	Advances in Developmental Biology	3
ZOO-720	Advances in Medical Parasitology	3
ZOO-721	Advances in Reproductive Physiology	3

ZOO-722	Recombinant DNA Technology	3
ZOO-723	Advances in Microbiology	3
ZOO-724	Wildlife Conservation of Pakistan and Azad Jammu & Kashmir	3
ZOO-725	Diagnostic Techniques in Molecular Genetics	3
ZOO-726	Applied and Experimental Statistics	3
ZOO-727	Comparative Physiology	3
ZOO-728	Comparative Vertebrate Endocrinology	3
ZOO-729	Physiology of Co-ordination	3
ZOO-730	Molecular Physiology of Gene Expression and Function	3
ZOO-731	Environmental Biotechnology	3
ZOO-732	Application of Biotechnology	3
ZOO-733	Population Genetics	3
ZOO-734	Biochemistry of Drug Action	3
ZOO-735	Applied Entomology	3
ZOO-736	Behavioural Ecology	3
ZOO-737	Biology of Birds and Mammals in Pakistan and AJK	3
ZOO-738	Principles of Wildlife Management	3
ZOO-739	Advances in Immunology	3
ZOO-740	Industrial and Pharmaceutical Microbiology	3
ZOO-741	Medical Biotechnology	3
ZOO-742	Microbial Genomics	3



ZOO-743	Principle and Kinetics of Toxicology	3
ZOO-744	Regulation of Gene Expression	3
ZOO-745	Protected Areas Management, Ecological Restoration and Sustainable Development	3
ZOO-746	Biological Toxicology	3
ZOO-747	Enzyme Technology	3
ZOO-748	Environmental Health	3
ZOO-749	Research Methodology and Scientific Writing	3
ZOO-750	Fish Bioenergetics	3
ZOO-751	GIS Techniques	3
ZOO-752	Restoration Ecology and Sustainable Development	3
ZOO-753	Advances in Plasma Biology	3
ZOO-754	Plasma Medicine	3
ZOO-755	Biological Tools, Techniques and Research Design	3
ZOO-756	Applied Genetics	3

DOCTOR OF PHILOSOPHY IN ZOOLOGY (PhD)

INTRODUCTION

A Ph.D. degree program in Zoology is an advanced academic program designed to provide in-depth knowledge and research training in the field of zoology. The program is aimed at producing highly skilled professionals and researchers in the field. Scholars engage in rigorous coursework, conduct independent research, and produce a doctoral dissertation based on their findings. The

program offers a combination of theoretical knowledge, laboratory work, and field research, enabling students to gain a comprehensive understanding of various fields of zoology. One of the key components of a Ph.D. program is original research. Doctoral students work closely with their supervisors to develop and execute their research. The research undertaken by Ph.D. students in Zoology often aims to address significant questions and challenges in the field, with the potential to make valuable contributions to the existing knowledge.

Program Objectives

The degree program intends to;

- Develop advanced research skills in scholars and foster critical thinking, problem-solving abilities, and the application of scientific methodologies in the field of zoology.
- Allow scholars to delve into their chosen research area, gaining expertise and knowledge that contributes to the overall body of scientific knowledge in the field.
- Encourages scholars to make significant contributions to the field through their original research. Students are expected to conduct novel investigations, discover new insights, and publish their findings in reputable scientific journals.
- Prepare scholars for diverse career paths alongside research-focused objectives. The program equips students with transferable skills, critical for success in academia, industry, government agencies, or non-profit organizations.

Program Outcomes

After obtaining a degree in Master of Philosophy in Zoology;



- The scholars have an extensive base in the up-to-date and applied research fields of the subject and can hunt their specialized area of research.
- The scholars encompass a deep understanding of the zoological phenomenon, critiquing, planning, analysis of quantitative and qualitative research in the area of interest and illustrating a meaningful solution to a research problem.
- Scholars would be able to prosper their teamwork abilities, leadership role, and performance, and establish relationships with other universities and industries.
- Scholars have a profound comprehension of professional and ethical standards and must continue these values as a benchmark for the quality of education in zoology.
- Publication would be made in reputed HEC-recognized national and international journals.

Scheme of Study for Doctor of Philosophy in Zoology

As per approved university rules.

First Semester		
CODE	COURSE	Credit Hrs.
ZOO-8**	Courses will be offered based on faculty availability and research focus.	3
ZOO-8**		3
ZOO-8**		3
	Total Credits	12
Second Semester		
CODE	COURSE	Credit Hrs.
ZOO-8**		3

ZOO-8**	Courses will be offered based on faculty availability and research focus.	3
ZOO-8**		3
Total Credits		12

DOCTOR OF PHILOSOPHY 3RD AND ONWARD SEMESTERS

CODE	COURSE	Credit Hrs.
ZOO-896	Comprehensive Examination (Written & Oral)	Pass/Fail basis





Alumni Messages



I feel privileged to count my journey at the Department of Zoology MUST. It has been a great learning experience. The faculty of the Department and the research culture among students is appreciable. Alumni of the Department are effectively serving in diverse fields today.

I encourage every student aspiring for a fine learning and research experience to join the Department and extend my best wishes.

Saba Awais

Dy. DEO (F) Mirpur

M. Phil Zoology, MUST



As a Zoology student since 2018, I have witnessed the department's remarkable growth and dedication. The rigorous curriculum and hands-on practical's have deepened my passion and equipped me with essential skills. The faculty's expertise and support have been pivotal in making complex concepts accessible. I appreciate the focus on research and innovation, which has significantly enhanced my scientific abilities. For anyone passionate about the life sciences, I highly recommend joining the Zoology department for its academic excellence and supportive environment.

Ayesha Asif

M. Phil Zoology

2022-2024

The background features a vibrant, abstract composition. On the right side, several hands of various colors (pink, green, orange, purple) are shown in a reaching or grasping gesture. On the left side, there are faint, light-colored line drawings of buildings and architectural structures. The overall color palette is warm and diverse, with a prominent green horizontal band across the middle.

FACULTY OF

**SOCIAL SCIENCES AND
HUMANITIES**





Dean Faculty of Social Sciences and Humanities

Prof. Dr. Tahseen Ghous

Tel. : +92-05827-961014

E-mail: deanarts@must.edu.pk

Message from Dean:

Welcome to the Faculty of Social Sciences and Humanities! I feel privileged and honored to be the Dean of the Faculty of Social Sciences and Humanities (FSSH) at the Mirpur University of Science and Technology (MUST). Currently comprising twelve academic departments, the Departments of English, Economics, Law, Education, International Relations, Sociology, Media and Communication Studies, Islamic Studies, Tourism and Hospitality, and Home Economics, and with plans of introducing more learning opportunities in other disciplines of the broader liberal arts. The faculty is housed in three campuses, spread over three different beautiful districts of the Azad Jammu and Kashmir; the districts of Mirpur, Bhimber, and Palandri. The Faculty of Social Sciences and Humanities (FSSH) is one of the four major faculties of our University and is a center of learning that offers a wide range of fields of study in the university system.

Arts/Social Sciences and Humanities exposes the students to various ways of thinking, analyzing, and questioning, introducing them to newer world views, providing them with an attitude and skillset that helps them grapple with the challenges of the day and orients their thinking around concerns

of social justice and the creation of a more ethical, just, and inclusive tomorrow.

FSSH boasts a well-qualified and committed academic staff, an impressive blend of experienced academicians with young and energetic ones working together, planning and implementing course curricula in their degree programs, and contributing to research and innovation in their respective disciplines. The composition of our academic staff is representative of the diverse skills and expertise in many fields of study, many of them have obtained their qualifications and training from reputed and recognized universities in Pakistan and around the world. FSSH, especially through the departments of English, Islamic Studies, Arabic, and Pakistan Studies, also plays a key role in providing assistance to other Faculties of MUST and fulfilling a major Higher-ed need for integrated and interdisciplinary learning. The oldest of our departments- the Department of Home Economics, which was a part of the University of Azad Jammu and Kashmir, Muzaffarabad until 2009, is playing a vital role in preparing good quality, skilled and well-rounded graduates, and is also working on establishing a new diploma graduate program.

Our prospective students will enjoy an array of extra- and co-curricular activities such as various sports activities, study tours, etc. The Faculty also



provides students with library facilities where they can access reputed academic databases of the world. In addition, computer laboratory facilities within the Faculty as well as sports facilities are made available for our students. The faculty offers limited hostel facilities where students are expected to apply annually for the available placements. We also offer a variety of different scholarships, including merit-based, need-based, and Higher Education Commission (HEC) Pakistan-funded Ehsaas scholarships to our students. The FSSH looks forward to the completion of its new building at the JariKas campus and the renovating/ refurbishing of a building of the Department of Home Economics in the Mirpur city campus. The Faculty is fully committed to making our graduates outstanding personalities with sound knowledge, healthy attitudes, and versatile skills polished in a disciplined environment, which we hope will make them an asset to whichever social and professional set-up they find themselves in. We at the FSSH, are preparing future teachers, public intellectuals, lawyers, journalists, economists, critical thinkers, world leaders, home economists, and overall good human beings with sound religious and cultural values. We hope the rigor, training, and disposition will also inadvertently contribute to our students doing justice to representing Kashmir and its stance on international academic and public platforms. Steered by an eminent group of scholars and assisted by our vibrant student community, the future of FSSH looks bright and promising. We are committed to helping foster critical thinking, creative expression, and intellectual inquiry in our students, and to helping them become well-rounded individuals and socially responsible citizens. And setting them on the path of life-long learning and the pursuit of all things noble! Please join FSSH for a holistic learning experience and your prosperous future. I hope to see many of you reading this, join us and I look forward to interacting with you.

DEPARTMENT OF Education

Degree Programs Offered

Associate Degree in Education (ADE)

B.Ed. Elementary (4 years)

B.Ed. Elementary (2.5 years)

B.Ed. Secondary (1.5 years)

M.Phil. Education

Message from Chairperson

Our department has consistently advanced, thanks to our unwavering commitment to educational excellence. Guided by our mission, we continue to grow and thrive, building on a strong foundation of success. Our dedicated faculty works tirelessly to help every student reach their fullest potential, both academically and professionally. At the heart of everything we do is a deep commitment to fostering and celebrating the talents and achievements of our students every day



Faculty Members of Education



Faculty Members

Dr Saira Farooq Shah

Designation: Assistant Professor
Qualification: Ph.D. Education

Dr Haroona Qurban

Designation: Assistant Professor
Qualification: Ph.D. Education

Kiran Saleem

Designation: Lecturer
Qualification: M.Phil. Education

Munawwar Hussain

Designation: Lecturer
Qualification: M.Phil Education

Dr Razia Rizve

Designation: Assistant Professor
Qualification: Ph.D. Education

Saima Mir

Designation: Lecturer
Qualification: M.Phil. Urdu

Dr. Humaira Abbasi

Designation: Lecturer
Qualification: Ph.D Education



Introduction:

At the Department of Education, our mission is to foster an inclusive, innovative, and equitable educational environment that empowers every student to achieve their fullest potential. We are dedicated to shaping the future of education through strategic policies, comprehensive programs, technological integration, and collaborative efforts with educators, parents, and communities.

Our core objectives are to ensure quality education for all students, support the professional development of educators, and promote educational equity across diverse communities. We strive to create a dynamic learning environment where every learner can thrive, embracing diverse perspectives and nurturing curiosity, critical thinking, and lifelong learning.

Explore our initiatives, resources, and opportunities as we work together to build a brighter future for our students and our society. Thank you for joining us on this journey toward educational excellence and equity.

Mission Statement:

To facilitate the process of learning through the provision of quality education as a main tool and ensure the development of effective communication skills with the ability to think objectively and develop a mind with curiosity coupled with a sense of innovation and creativity. Inculcate human values and character traits in the students to make them competitive in the challenging field of cognitive science.

Objectives:

1. To facilitate students in the learning process to develop them professionally equipped.

2. To develop the research culture among the students to be competitive.
3. To emphasize inclusive aspects of education as a means to reform the society.
4. To incorporate human and scientific approaches towards the teaching profession.

Associate Degree in Education:

Eligibility Criteria
<ul style="list-style-type: none"> • FA/F.Sc/ A levels with minimum 2nd Division with no 3rd div in the academic career • FA/F.Sc/ A levels with school subjects. • The admission will be subjected to the provision of the character certificate from the last degree institution.
Duration of Degree
2 years (4 Semesters)

1 st Semester			
Course Code	Course Title	Category	CH
ENG-1103	Functional English	GE	3(3+0)
QTR-1127	Exploring Quantitative Skills	GE	3(3+0)
ISL-0012	Islamic Studies	GE	2(2+0)
SOC-0021	Introduction to Sociology	GE	2(2+0)
EDU-1101	Child Development	MC	3(3+0)



PROSPECTUS 2024-25

EDU-1102	General Methods of Teaching	MC	3(3+0)
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	1
Total Credit Hours			17
2 nd Semester			
Course Code	Course Title	Category	CH
QTR-1228	Tools for Quantitative Reasoning	GE	3(3+0)
ENG-1207	Introduction to Expository Writing	GE	3(3+0)
URU-1222	Urdu	GE	2(2+0)
ARA-0001	Arabic	Com	3(3+0)
EDU-1201	Classroom Management	MC	3(3+0)
EDU-1202	Methods of Teaching Islamic Studies	MC	3(3+0)
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	S/U
Total Credit Hours			17

3 rd Semester			
Course Code	Course Title	Category	CH
ETRE-0008	Introduction to Entrepreneurship	GE	2(2+0)
ICT-2126	Application of Information and Communication Technologies	GE	3(2+1)
EDU-2101	Teaching Literacy Skills	MC	3(3+0)
EDU-2102	Teaching of Urdu	MC	3(3+0)
EDU-2103	Classroom Assessment	MC	3(3+0)
EDU-2104	Teaching of Mathematics	MC	3(3+0)
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	S/U
Total Credit Hours			17
4 th Semester			
Course Code	Course Title	Category	CH
SGC-2225	The Science of Global Challenges	GE	3(2+1)
CCE-2230	Civic and Community Engagement	GE	2(2+0)
ICP-2229	Ideology and Constitution of Pakistan	GE	2(2+0)
EDU-2201	Teaching of English	MC	3(3+0)
EDU-2202	Teaching Practice	MC	3(0+3)
EDU-2203	Teaching of Social Studies	MC	3(3+0)



HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	S/U
Total CH			16

Scheme of Study BS Education/ B. Ed. Elementary

Admission Requirements

1. FA/F.Sc / A level or equivalent with minimum 2nd Div with no 3rd div in the academic career
2. FA/F.Sc / A level with school subjects.
3. The admission will be subjected to the provision of the character certificate from the last degree institution

Duration of Semester

16-18 Weeks

Course Load per Semester

15-18 Credit Hours

Duration of Degree

4 years (8 Semesters)

1st Semester

Course Code	Course Title	Category	CH
ENG-1103	Functional English	GE	3(3+0)

QTR-1127	Exploring Quantitative Skills	GE	3(3+0)
ISL-0012	Islamic Studies	GE	2(2+0)
SOC-0021	Introduction to Sociology	GE	2(2+0)
EDU-1101	Child Development	MC	3(3+0)
EDU-1102	General Methods of Teaching	MC	3(3+0)
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	1
Total Credit Hours			17

2nd Semester

Course Code	Course Title	Category	CH
QTR-1228	Tools for Quantitative Reasoning	GE	3(3+0)
ENG-1207	Introduction to Expository Writing	GE	3(3+0)
URU-1222	Urdu	GE	2(2+0)
ARA-0001	Arabic	Com	3(3+0)
EDU-1201	Classroom Management	MC	3(3+0)
EDU-1202	Methods of Teaching Islamic Studies	MC	3(3+0)
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	S/U
Total Credit Hours			17

3rd Semester



PROSPECTUS 2024-25

Course Code	Course Title	Category	CH
ETRE-0008	Introduction to Entrepreneurship	GE	2(2+0)
ICT-2126	Application of Information and Communication Technologies	GE	3(2+1)
EDU-2101	Teaching Literacy Skills	MC	3(3+0)
EDU-2102	Teaching of Urdu	MC	3(3+0)
EDU-2103	Classroom Assessment	MC	3(3+0)
EDU-2104	Teaching of Mathematics	MC	3(3+0)
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	S/U
Total Credit Hours			17
4 th Semester			
Course Code	Course Title	Category	CH
SGC-2225	The Science of Global Challenges	GE	3(2+1)
CCE-2230	Civic and Community Engagement	GE	2(2+0)
ICP-2229	Ideology and Constitution of Pakistan	GE	2(2+0)
EDU-2201	Teaching of English	MC	3(3+0)
EDU-2202	Teaching Practice	MC	3(0+3)
EDU-2203	Teaching of Social Studies	MC	3(3+0)

HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	S/U
Total CH			16
Notes: Exit will be available, and students will be given ADE subject to the university policy.			
GE: General Education (30 Credit Hours)			
MC: Major Courses (Minimum 33 Credit Hours in first four semesters)			
Compulsory: Arabic and Holy Ouran with Translation.Tajveed and Tafseer (04 Credit Hours).			
5 th Semester			
Course Code	Course Title	Category	CH
IR-3110	Introduction to International Relations	IDC	3(3+0)
EDU-3101	Curriculum Development	MC	3(3+0)
EDU-3102	Foundations of Education	MC	3(3+0)
EDU-3103	Educational Psychology	MC	3(3+0)
EDU-3104	Islamic System of Education	MC	3(3+0)
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	S/U
Total CH			15

6 th Semester			
Course Code	Course Title	Category	CH



PROSPECTUS 2024-25

MC-3214	Introduction to Media Literacy	IDC	3(3+0)
EDU-3201	Contemporary Issues and Trends in Education	MC	3(3+0)
EDU-3202	Comparative Education	MC	3(3+0)
EDU-3203	Introduction to Guidance and Counseling	MC	3(3+0)
EDU-3204	Educational Technologies	MC	3(3+0)
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	S/U
Total CH			15

7th Semester

Course Code	Course Title	Category	CH
ACC-4101	Arts Craft & Calligraphy	IDC	3(3+0)
EDU-4101	Educational Management and Leadership	MC	3(3+0)
EDU-4102	Research Methods in Education	MC	3(3+0)
EDU-4103	Long Term Teaching Practice/ Internship	MC	6
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	S/U
Total CH			15

8th Semester

Course Code	Course Title	Category	CH
FM-4201	Financial Management	IDC	3(3+0)
EDU-4201	Inclusive Education	MC	3(3+0)
EDU-4202	School Management	MC	3(3+0)
EDU-4203	Test Development and Evaluation	MC	3(3+0)
EDU-4204	Capstone Project	MC	3(0+3)
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	S/U
Total CH			15

Summary

General Education (GE)	30 Credit Hours
Major Courses (MC)	81
Inter Disciplinary Courses (IDC)	12 Credit Hours
Compulsory Courses	
1. Arabic	03
2. Holy Ouran with Translation. Tajveed and Tafseer	01
Total Credit Hours	127



B.ED Secondary (1.5 years)

Entry Requirements

M.A/M.Sc or equivalent with at least second division with no 3rd div in the academic career.
 Entry Test conducted by the university.
 The admission will be subjected to the provision of the character certificate from the last degree institution.

Scheme of Study (B. ED Secondary)

Duration:	03 Semesters
Thesis/Research Project	06 Credit Hours
Teaching Practice	06 Credit Hours
Courses	36 Credit Hours
Total	54 Credit Hours
Oral comprehension examination	S/U Basis

Semester-I		
Course Code	Course Title	CH
EDU-5101	General Methods of Teaching	03
EDU-5102	Classroom Assessment	03
EDU-5103	School, Community and Teacher	03
EDU-5104	Foundations of Education	03
EDU-5105	Curriculum Development	03
EDU-5106	Educational Psychology	03
Total		18

Semester-II		
Course Code	Course Title	CH
EDU-5201	Research Methods in Education	03
EDU-5202	Discipline I Teaching of Biology	03
EDU-5203	Teaching of Chemistry	
EDU-5204	Teaching of Mathematics	
EDU-5205	Teaching of Physics	
EDU-5206	Discipline II The teaching of English /	03
EDU-5207	Teaching of Urdu	
EDU-5208	Teaching of Social Studies	
EDU-5209	Teaching of General Science	
EDU-5210	Teaching of Islamic Studies	
EDU-5211	Teaching Practice	
Total		18



M.Phil. Education

The M.Phil. program is crucial for prospective researchers at the pre-doctoral level. The program is designed to build the research capacity of scholars from varied backgrounds and provide a strong orientation in different areas of education.

M.Phil. program will include Core courses and Area of specialization. In addition, all the students will be required to undertake a

Dissertation. The course will help to develop a rational conceptualization of educational research. Early-stage research students will develop competency in undertaking independent micro and macro-level research projects in the priority areas of teacher education and /or in the area of education interdisciplinary.

Objectives to Offer Program

The students will be helped to:

- Reflect on the basic parameters within which the system of school education operates. These are the learner, the teacher, the teaching-learning process, pedagogy, the school context, the larger societal context, the support systems, and various connections and interconnections between these parameters.
- Appreciate that research would help to enhance efficiency, effectiveness, quality, and excellence in the system of school education.
- Develop an understanding about problems of education and methodology to explore alternative solutions.
- Develop competency in undertaking leadership in the areas of School Education and Teacher Education.

- Develop a rational conceptualization of educational research.
- Develop competency in undertaking independent micro and macro level research projects in the priority areas of school education and teacher education.

Admission Criteria

- Minimum Academic Requirement:
- A candidate seeking admission to the degree must have sixteen years of education or 4 years education after F.A. /F. Sc. or equivalent (at least 130 credit hours) with at least second division/CGPA 2.50 in the degree on the basis of which admission is requested.
- Any candidate having BS Education (4 years), B.Ed (4 years), M. Ed, M.A. Education degree, B.Ed (2.5 years), B.Ed (1.5 years), and BS. Ed (4 years) with at least 65% marks in the semester system and 50% marks in the annual system of any recognized University with no 3rd div in the academic career shall be eligible to apply for the course.
- Passing the interview conducted by the admission committee of the department will be mandatory for the admission.
- The admission will be subjected to the provision of the character certificate from the last degree institution.
- UGAT /GAT with minimum of 50% score is compulsory.

Duration

The duration of the course is 4 to 6 semesters, and total of 30 credit hours as per HEC criteria.



Sr. No.	Summary	Total Credit hrs.
i	Core Courses	12
ii	Elective Courses/Area of Specialization	12
iii	Thesis	06
iv	Seminar	1
TOTAL Credit hours		31

Duration of the Semester

There shall be 2 semesters per year (Fall and Spring) of 18 weeks each. The commencement of semesters shall be regulated by the Academic Council.

EDU-7201	Educational change and Development (Core)	0	3
EDU-7202	Quantitative Research Methods in education (Core)	0	3
EDU-7203	Trends and issues in Teacher Education (Professional)	0	3
EDU-7204	Educational Policy, Planning and Management (Professional)	0	3
EDU-7002	Thesis	Credit Hrs6	
EDU-7001	Seminar	Credit Hrs 1	

Scheme of Studies for M.Phil. Education

Courses Semester 1 (12 Credit Hrs)

Code	Course Title	Lab Hrs	Credit Hrs
EDU-7101	Professional Development of Teachers (Core)	0	3
EDU-7102	Qualitative Research Methods in Education (Core)	0	3
EDU-7103	Advanced Course on Educational Psychology (Professional)	0	3
EDU-7104	Educational Testing, Measurement and Evaluation (Professional)	0	3

Courses Semester 2 (12 Credit Hrs)

Code	Course Title	Lab Hrs	Credit Hrs
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DEPARTMENT OF Home Economics

Our Vision

To develop students' knowledge, attitudes, understanding, skills and values to achieve optimal, healthy and sustainable living for every person as an individual, and as a member of families and society.

Degree Programs Offered

BS Home Economics after HSSC
BS Home Economics after SSC
M.Sc. Textile & Clothing
M.Sc. Food and Nutrition



Chairperson:

Ms. Nasreen Tariq

Tel: +92-5827-961052

E-mail: chairperson.he@must.edu.pk

Message from Chairperson:

Dear Prospective Students,

Welcome to the Home Economics Department, where creativity meets practicality, and passion meets purpose. We empower talented individuals to become innovative, groomed, and responsible leaders, equipped with essential life skills and a deep understanding of the interconnectedness of:

- Food Science, diet, and disease
- Design, fashion, arts, and decor
- Interior design and childcare
- Family and community development
- As Coordinator, I ensure that our students receive:
- A balanced education combining theory and practice
- Mentorship from passionate and experienced faculty
- Hands-on learning, internships, and community engagement opportunities
-

- A supportive environment fostering personal growth and teamwork
- Unlock a world of career possibilities, including:
- Work-from-home strategies
- Self-grooming and self-care
- Dress designing
- Interior decorating
- Baking
- Dietetics
- Communication skills
- Entrepreneurship and marketing
- Personality Development
- Daycare management

Join our vibrant community and embark on a transformative journey that will empower you to make a positive impact in your own life and the lives of others. We look forward to welcoming you to our Home Economics family.



Faculty Members

Ms. Nasreen Tariq

Assistant Professor in Human Development and Family Studies

Ms. Sobia Akram

Lecturer in Food and Nutrition (on Deputation)

Ms. Amina Gul

Lecturer in Fine Arts

Ms. Tehmina Tabbasum

J.Lecturer in Clothing and Textile

Ms. Poushmal Abdul Razzaq

Lecturer in Human Nutrition and Dietetics

Ms. Rahat Sharif

Assistant Professor in Interior and Environmental Design

Ms. Asma Sagheer Khan

Lecturer in Food and Nutrition Science

Ms. Sabahat Zareen

Lecturer in Psychology

Mrs.Nazish Zulfiqar

Lecturer Food and Nutrition Science

Mrs. Sehrish

J.Lecturer in Clothing Construction and Textile (on study leave)



Faculty Members of Home Economics



Introduction

The Unique History of Home Economics can be traced well over 150 years ago. The study of Home Economics began in the United States after the American Revolution. These land-grant institutions sought “to promote the liberal and practical education of the industrial classes.” They offered professional, technical, vocational and esthetic courses that were related to the lives of students.

As the scope of Home Economics training broadened, the variety of professions in Home Economics increased. On the university level, Home Economics training became more and more specialized to produce skill full graduates.

Remarkable department of Home Economics one and only in Azad Jammu & Kashmir region. The college of Home Economics was established in 1981, under the University of Azad Kashmir. In 2009 Home Economics College merged in to Mirpur University of Science and Technology MUST. It is only the department devoted and focus to the study of the female complete education programs, theoretically and their practical application in the different fields of society in a better way. The department of Home Economics successfully educate students with specific knowledge in the five major disciplines of BS Home Economics and its flagship BS program Fashion and Design with research.

Department of Home Economics offering numerous highly specialized and technical courses in five different areas of Home Economics, Clothing and Textiles, Food and Nutrition, Human Development and Family studies, Home Management Interior, Furnishing and Art and Design, all fields including research, internships, research projects senior most year of the students

which is compulsory requirement for graduates that enhance their thinking critical towards life challenges.

Mission Statement

Our mission is to inculcate professional knowledge, skills, and ethical values to prepare professionals and responsible citizens for the development of Community through continuous improvement of physical / material and esthetic relational dimensions of living.

Objectives

- To provide up to date and modern education to the students.
- To inculcate true appreciation of religious and Islamic values in the practical lives of the students.
- To develop social susceptibilities and make students to cope better with their various roles not only as individuals, but as family members and citizens of the state.
- To develop a positive attitude towards life.
- To gear women towards professional careers and a general socio-economic development.
- To develop confidence in students to understand the importance of their diverse role as nation builders.
- To expose the students to the latest knowledge and technology to familiarize them with the advancements in the industrial sector.

Jobs prospective for graduates:

Our students have sound knowledge of Home Economics & they easily get jobs such as:

Professors, Nutritionist, Dietitian, Nutrition Counselors, Hotel Managers, Food Scientists, Industry Managers, Food Quality Control Managers, Caterers, Fashion Designer, job Boutiques,



owners of the Home industry, Social Mobilizes or workers, Montessori teachers, Head of Child Care Centers, Painters, Interior Designers and Decorators, Furniture designers, Family Counselor, Health Fitness Trainer, Health Educator, Consumer Educator, Fashion Journalist, Home Decor Consultant, Event planner, Artist, Calligrapher & Creative Editor

Facilities	
<ul style="list-style-type: none"> • Food & Nutrition Lab • Textile& Clothing Lab • Art & Design Lab • Child Development & Guidance In-House Lab (Nursery Section/School) • Home Management & Residence Lab 	<ul style="list-style-type: none"> • Bio-Physics Lab • Chemistry Lab • Computer Lab • Library • Hostel Accommodation • Transport • Canteen • Examination Hall

Home Economics Disciplines:

BS Home Economics programs offers a comprehensive education with five specialized disciplines and its flagship BS Fashion and Design.

Food and Nutrition

Uncover the science behind food and its impact on human health under the discipline of Food and Nutrition. Central focuses included learning many different ways of preparing nutrition meal as well as safe foods storage techniques ;this helped lay the foundation for how Food & Nutrition is incorporated into Home Economics curriculum today. Food & Nutrition is based on

meal management, food preservation, experimental food, food technology, institutional management, dietetics & community nutrition etc.

Clothing & Textiles

Master textile science, clothing construction, and fashion merchandising This subject covers the main area of our need of clothing also concerned the textile chemistry, Textile marketing & merchandizing, textiles Engineering and textile designing etc.

Human Development and Family Studies

Explore Human Development and Family dynamics across lifespan development.

Illustrate the difference between myths of aging and scientifically researched areas of aging.

The purpose is to promote to school readiness and respond learning outcomes and to improve the knowledge and skills of life span and the nursery section is provided with necessary amenities and its mode of activities is subject to participation and innovation of Home Economics.

Home Management & Interior Designing

Learn to create functional and aesthetically pleasing spaces, management of money, budgeting, home furnishing and interior designing on commercial level under this field.

Art & Design:

Cultivate creative skills in visual arts and design to covers applied interior designing, block printing, painting, drawing, pottery painting etc.

BS Fashion and Design

which equips students with cutting-edge knowledge and skills in fashion design, merchandising, and management, setting them up for success in the fashion industry.

Art & Design:

In this field, it covers applied interior designing, block printing, painting, pottery painting, sculpture etc.

Subject-based practical work:

- Residence lab (15 days of stay in the residence lab, interior Design)
- Textile design annual display
- Art Design Exhibitions and annual display
- Visits of Food & Nutrition to Hospitals and community nutrition programs.
- Observation in the Nursery Section through selected techniques

Nursery Section:

The Home Economics Department is proud to house a state-of-the-art Nursery School Laboratory, specifically designed for students of Human Development and Family Studies. This cutting-edge facility offers a unique opportunity for students to:-

Observe and interact with children, gaining valuable insights into their developmental and behavioral aspects.

- Conduct research using various techniques and methods, fostering a deeper understanding of child development and family dynamics





Venue: Main Entrance Hall Department of Home Economics
Date: 18th October 2023



Under the guidance of experienced faculty, students engage in hands-on learning, preparing them to become skilled professionals in their field.

In the Nursery Section/ School, the children between ages of three to four years are enrolled every year from September to June.

Multiple Events & Visits Regarding Subjects Red Day Celebration
Department of **Home Economics** has arranged a Seminar
Topic: “World Breast Feeding Awareness Program “ by District Health Office and Department of Home Economics with Collaboration of UNICEF and WFP. Under the Supervision of Ms. Nazish Zulfiqar Lecturer
Department of Home Economics



The final year research project 2023 display featured a diverse range of innovative and nutritionally focused products. Each project displayed the creativity and expertise of the students and their supervisor, Ms. Asma Saghir Khan.

The final year Research Project 2024.

The following projects were displayed at the event. A Project Exhibition was displayed by the Department of Home Economics Food and Nutrition Students on Tuesday, August 27, 2024, at Mirpur University of Science and Technology from 0:00 am to 04:00 pm.

Supervisor: Ms. Asma Saghir Khan



- **Sufis Wellness Tonic:** A natural remedy design to support both mental and physical wellbeing by Momina Shakoor and Esha Shahid.
- **Cinaap Tea:** A refreshing, and health-promoting beverage created by Sana and Zoya.
- **Flaxseed cracker:** Innovative and nutritious flaxseed-infused crackers with the innovation of mint & pumpkin seeds by Fatima ,Ayesha.
- **Serenity Sip:** With unique innovative combo of Hibiscus Mint by Dania , Maria.
- **Banana Oatmeal Cookies:** Delightful healthy cookies, by Emaan , Zarsheen.
- **Claritea:** Get sinus's clarity with Claritea by Kainat Kinza.

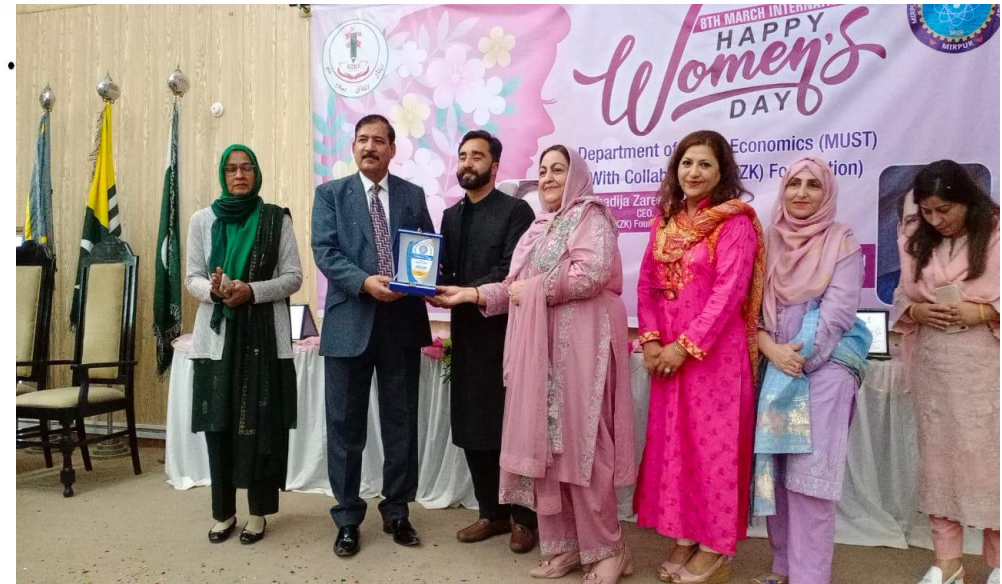


Visit of students and teachers at Nafees group of industries



14th August Celebration

- Students of Experimental Food and Nutrition with their stall for learning about profit and loss rule.



International Women's Day



Future Plan:

The department plans to start different diploma and certificates courses of varying duration of different disciplines of Home Economics.

Establishment of a display center

Up gradation of physical infrastructure of classrooms, labs and nursery.

Community engagement: Develop outreach programs, workshops, and services addressing local needs in food, fashion, and family well-being.

Industry partnerships: Foster connections with industries related to food, fashion, and home goods for internships, job placement, and collaborative projects.

Student organizations and clubs: Support student-led initiatives, clubs, or organizations focused on food, fashion, and family topics.

Admission Requirement

1. **For BS Home Economics**
 - 2nd Division After HSSC
 - Entry test conducted by the University
2. **For BS Fashion and Design**
 - 2nd Division After HSSC
 - Entry test conducted by the University

**BS Home Economics 4 years degree program
SCHEME OF STUDIES FOR SEMESTER 1-4**

SEMESTER 1 st		Total Credit Hours=17			
Course Code	Course Title	Category	Lec. Cr.	Lab. Cr.	Cr. Hrs.
HEE-1101	Introduction to Art and Design	MC	02	01	03
HEE-1102	Clothing and Consumer Education	MC	02	01	03
ENG-1103	Functional English	GE	03	00	03
ICP-1129	Ideology and Constitution of Pakistan	GE	02	00	02
QTR-1127	Quantitative Reasoning-I	GE	03	00	03
CHE-1104	Chemistry	IDC	02	00	02
HQT-0001	Holy Quran with Translation, Tajveed and Tafseer	COM	01		IP
SEMESTER 2 nd		Total Credit Hours=17			
Course Code	Course Title	Category	Lec. Cr.	Lab. Cr.	Cr. Hrs.
HEE-1201	Advance Clothing	MC	02	01	03
HEL-1202	Life Span Development	IDC	03	00	03
ENG-1207	Expository Writing	GE	03	00	03
ISL-1212	Islamic Studies	GE	02	00	02
QTR-1228	Quantitative Reasoning -II	GE	03	00	03



PSY-1219	Psychology	GE	03	00	03
HQT-0001	Holy Quran with Translation, Tajveed and Tafseer	COM			IP
SEMESTER 3rd		Total Credit Hours=17			
Course Code	Course Title	Category	Lec. Cr	Lab. Cr.	Cr. Hrs.
HEE-2101	Home Management and Housing-I	MC	02	01	03
HEE-2102	Fundamentals of Food and Nutrition	MC	02	01	03
ENG-2107	English-III	GE	03	00	03
ICT-2126	Application of Information and Communication Technology	GE	02	01	03
ECO-2106	Economics	IDC	03	00	03
SOC-2221	Sociology	GE	02	00	02
HQT-0001	Holy Quran with Translation Tajveed and Tafseer	COM			IP
SEMESTER 4th		Total Credit Hours=16			
Course Code	Course Title	Category	Lec. Cr.	Lab. Hrs	Cr. Hrs.
HEE-2201	Home Management and Housing-II	MC	02	01	03
HEE-2202	Family and Community Development	MC	02	01	03
HEE-2203	Meal Management	MC	02	01	03

HEB-2204	Biochemistry	GE	02	01	03
ETRE-2208	Entrepreneurship	GE	02	00	02
CCE-1230	Civics and Community Engagement	IDC	02	00	02
HQT-0001	Holy Quran with Translation Tajweed and Tafseer	COM			IP

Scheme of Studies for Semester 5-8 According To Area Of Specialization FOOD & NUTRITION

SEMESTER 5th		Credit Hrs: 15			
Course Code	Course Title	Category	Lec Hrs	Lab Hrs	Cr. Hrs
HEH-3101	Home Economics Education, Administration and Supervision	IDC	03	00	03
HEF-3102	Food Preservation	MC	02	01	03
HEF-3103	Experimental Foods	MC	02	01	03
HEF-3104	Advanced Nutrition	MC	02	01	03
HEF-3105	Dietetics	MC	02	01	03
HQT-0001	Holy Quran with Translation Tajveed and Tafseer	COM			IP
Semester 6th		Credit Hrs: 15			
Course Code	Course Title	Category	Lec. Hrs	Lab. Hrs	Cr. Hrs
HEH-3201	Research Methodology	MC	03	00	3



HEF-3202	Physiological Aspects of Nutrition	MC	02	01	3
HEF-3203	Nutritional Bio-Chemistry-I	MC	03	00	3
HEF-3204	Food Microbiology	MC	02	01	3
HEF-3205	Community Nutrition	MC	02	01	3
HQT-0001	Holy Quran with Translation Tajveed and Tafseer	COM			IP
Semester 7 th		Credit Hrs: 16			
Course Code	Course Title	Category	Lec. Hrs	Lab Hrs	Cr. Hrs
HEH-4101	Internship	MC	00	03	03
HEF-4102	Nutritional Bio-Chemistry-II	MC	02	01	03
HEF-4103	Food Technology	MC	02	01	03
HEH-4104	Seminar or Workshop	MC	00	01	01
HQT-0001	Holy Quran with Translation Tajveed and Tafseer	COM			IP
Elective: Students may choose 2 courses from the following:					
HEF-4105	Institutional Management	MC	02	01	03
HEF-4106	Food Analysis	MC	02	01	03
HEF-4107	Nutritional Management in Disasters	MC	03	00	03
HEF-4108	Diet Modeling and Counseling	MC	02	01	03

Semester 8 th		Credit Hrs: 15			
Course Code	Course Title	Category	Lec. Hrs	Lab Hrs	Cr. Hrs
HEH-4201	Capstone Project	MC	00	03	03

HEF-4202	Applied Nutrition	MC	02	01	03
HEF-4203	Nutrition Health and Prevention	MC	03	00	03
HQT-0001	Holy Quran with Translation Tajveed and Tafseer	COM			S/U
Elective: Students may choose 2 courses from the following:					
HEF-4204	Sports Nutrition	MC	03	00	03
HEF-4205	Food Allergies	MC	03	00	03
HEF-4206	Clinic and Therapeutic Nutrition	MC	02	01	03
HEF-4207	Life Cycle Nutrition	MC	03	00	03

Scheme of Studies for Semester 5-8 According to area of specialization. HUMAN DEVELOPMENT AND FAMILY STUDIES

Semester 5 th		Credit Hrs: 15			
Course Code	Course Title	Category	Lec. Hrs	Lab Hrs	Cr. Hrs
HEH-3101	Home Economics Education, Administration and Supervision	IDC	03	00	03
HEH-3102	Development from Prenatal to Infancy	MC	03	00	03
HEH-3103	Childhood Care and Development	MC	02	01	03
HEH-3104	Adolescent Development	MC	03	00	03
HEH-3105	Adulthood and Aging	MC	03	00	03



HQT-0001	Holy Quran with Translation Tajveed and Tafseer	COM			
Semester 6th			Credit Hrs: 15		
Course Code	Course Title	Category	Lec. Hrs	Lab Hrs	Cr. Hrs
HEH-3201	Research Methodology	MC	03	00	03
HEH-3202	Positive Psychology	MC	03	00	03
HEH-3203	Early Childhood Education and Guidance	MC	03	00	03
HEH-3204	Theories of Human Development	MC	03	00	03
HEH-3205	Communication in Human and Family Relations	MC	03	00	03
HQT-0001	Holy Quran with Translation Tajveed and Tafseer	COM			IP
Semester 7th			Credit Hrs: 16		
Course Code	Course Title	Category	Lec. Hrs	Lab Hrs	Cr. Hrs
HEH-4101	Internship	MC	00	03	03
HEH-4102	Abnormal Psychology	MC	03	00	03
HEH-4103	Elementary Education and Administration	MC	03	00	03
HEH-4104	Seminar or Workshop	MC	00	01	01
HQT-0001	Holy Quran with Translation Tajveed and Tafseer	COM		0	IP
Elective: Students may choose 2 courses from the following:					
HEH-4105	Guidance and Counseling	MC	02	01	03

HEH-4106	Human and Family Ecology	MC	03	00	03
HEH-4107	Exceptional Children	MC	03	00	03
HEH-4108	Family Dynamics	MC	03	00	03
HEH-4109	Workplace Psychology	MC	03	00	03
Semester 8th			Credit Hrs: 15		
Course Code	Course Title	Category	Lec. Hrs	Lab Hrs	Cr. Hrs
HEH-4201	Capstone Project	MC	00	03	03
HEH-4202	Educational Psychology	MC	03	00	03
HEH-4203	Planning and Managing Human Services Programs	MC	03	00	03
HQT-0001	Holy Quran with Translation Tajveed and Tafseer	COM			S/U
Elective: Students may choose 2 courses from the following:					
HEH-4204	Psychological Testing	MS	03	00	03
HEH-4205	Family Problems and Intervention Strategies	MC	03	00	03
HEH-4206	Day Care Management and Administration.	MC	03	00	03
HEH-4207	Philosophy of Mind	MC	03	00	03
Scheme of Studies for Semesters 5-8 According to an area of specialization TEXTILES AND CLOTHING					
Semester 5th			Credit Hrs: 15		
Course Code	Course Title	Category	Lec. Hrs	Lab Hrs	Cr. Hrs
HEH-3101	Home Economics	IDC	03	00	03



	Education, Administration and Supervision				
HET-3102	Advance Textile	MC	02	01	03
HET-3103	Pattern Making	MC	01	02	03
HET-3104	Fashion Designing and Illustrations	MC	01	02	03
HET-3105	Textile Chemistry-1	MC	02	01	03
HQT-0001	Holy Quran with Translation Tajweed and Tafseer	COM			IP
Semester 6th		Credit Hrs: 15			
Course Code	Course Title	Category	Lec. Hrs	Lab Hrs	Cr. Hrs
HEH-3201	Research Methodology	MC	03	00	03
HET-3202	Textiles Computer Aided Design	MC	01	02	03
HET-3203	Textile Chemistry –II	MC	02	01	03
HET-3204	Textile Testing	MC	02	01	03
HET-3205	Textiles Dyeing and Printing	MC	01	02	03
HQT-0001	Holy Quran with Translation Tajweed and Tafseer	COM			IP
Semester 7th		Credit Hrs: 16			
Course Code	Course Title	Category	Lec. Hrs	Lab Hrs	Cr. Hrs
HEH-4101	Internship	MC	00	03	03
HET-4102	Art of Draping	MC	01	02	03

HET-4103	Experimental Textile	MC	02	01	03
HEH-4104	Seminar or Workshop	MC	00	01	1
HQT-0001	Holy Quran with Translation Tajweed and Tafseer	COM			IP
Elective: Students may choose 2 courses from the following:					
HET-4105	Textile and Clothing Industrial Management	MC	03	00	03
HET-4106	Decorative Fabrics	MC	02	01	03
HET-4107	Entrepreneurship	MC	03	00	03
HET-4108	Historic Costume	MC	03	00	03
HET-4109	Economic, Social and psychological Aspects of Clothing and Textiles	MC	03	00	03
Semester 8th		Credit Hrs: 15			
Course Code	Course Title	Category	Lec Hrs	Lab Hrs	Cr. Hrs
HEH-4201	Capstone Project	MC	00	03	03
HET-4202	Applied Textile Designing	MC	01	02	03
HET-4203	Dress Designing Through Draping	MC	01	02	03
HQT-0001	Holy Quran with Translation Tajweed and Tafseer	COM			S/U
Elective: Students may choose 2 courses from the following:					
HET-4204	Structural Textile Designing	MC	02	01	03
HET-4205	Redesigning and Restoring		02	01	03



	of Textiles				
HET-4206	Marketing and Merchandizing	MC	03	00	03
HET-4207	Fashion Photography	MC	01	02	03
HET-4208	Fashion and Boutique Management	MC	02	01	03
HET-4209	Functional Designing for Special People.	MC	02	01	3

Interior and Environmental Design

Semester 5 th		Credit Hrs: 15			
Course Code	Course Title	Category	Lec.Hrs	Lab Hrs	Cr. Hrs
HEH-3101	Home Economics Education, Administration and Supervision	IDC	03	00	03
HEI-3102	Interior Space Planning-I	MC	02	01	03
HEI-3103	Fundamental of Interior Architecture -I	MC	02	01	03
HEI-3104	Designing the Furniture	MC	02	01	03
HEI-3105	Interior Design Application (Perspective Drawing Studio)	MC	01	02	03
HQT-0001	Holy Quran with Translation Tajweed and Tafseer	COM			IP
Semester 6 th		Credit Hrs: 15			

Course Code	Course Title	Category	Lec. Hrs	Lab Hrs	Cr. Hrs
HEH-3201	Research Methodology	MC	03	00	03
HEI-3202	Environmental Aesthetics	MC	02	01	03
HEI-3203	Fundamentals of Interior Architecture -II	MC	02	01	03
HEI-3204	Designing for Soft Furnishing	MC	02	01	03
HEI-3205	Interior Environment (Physical Aspect)	MC	02	01	03
HQT-0001	Holy Quran with Translation Tajweed and Tafseer	COM			IP
Semester 7 th		Credit Hrs: 16			
Course Code	Course Title	Category	Lec. Hrs	LabHrs	Cr. Hrs
HEH-4101	Internship	MC	00	03	03
HEI-4102	Interior Space Planning-II	MC	02	01	03
HEI-4103	Interior Design Project -1	MC	00	03	03
HEH-4104	Seminar or Workshop	MC	00	01	01



HQT-0001	Holy Quran with Translation Tajveed and Tafseer	COM				IP
Elective: Students may choose 2 courses from the following:						
HEI-4105	Environmental Management	MC	02	01	03	
HEI-4106	Project Management	MC	02	01	03	
HEI-4107	Designing Functional Spaces for Special Needs	MC	02	01	03	
HEI-4108	Environmental Psychology	MC	02	01	03	
Semester 8^h			Credit Hrs: 15			
Course Code	Course Title	Category	Lec. Hrs	Lab Hrs	Cr. Hrs	
HEH-4201	Capstone Project	MC	00	03	03	
HEI-4202	Advanced computer Applications for Interior Design	MC	01	02	03	
HEI-4203	Interior Design Project- II	MC	00	03	03	
HQT-0001	Holy Quran with Translation Tajveed and Tafseer	COM				S/U
Elective: Students may choose 2 courses from the following:						
HEI-4204	Interior Design Professional Practice	MC	02	01	03	
HEI-4205	Hotel Management	MC	02	01	03	
HEI-4206	Interior Design Professional Practice Management	MC	02	01	03	

HEI-4207	Consumer, Marketing strategies	MC	02	01	03
HEI-4208	Environmental Ethics	MC	20	01	03

Scheme of Studies for Semester 5-8 According to area of specialization ART AND DESIGN

Semester 5th			Credit Hrs: 15		
Course Code	Course Title	Category	Lec. Hrs	Lab Hrs	Cr. Hrs
HEH-3101	Home Economics Education, Administration and Supervision	IDC	03	00	03
HEA-3102	Applied Art-I	MC	02	01	03
HEA-3103	Art Education-I	MC	03	00	03
HEA-3104	Essential of Interior Design-I	MC	01	02	03
HEA-3105	Commercial Art	MC	00	03	03
HQT-0001	Holy Quran with Translation Tajveed and Tafseer	COM			IP
Semester 6th			Credit Hrs: 15		
Course Code	Course Title	Category	Lec. Hrs	Lab Hrs	Cr. Hrs
HEH-3201	Research Methodology	MC	03	00	03
HEA-3202	Applied Art -II	MC	02	01	03
HEA-3203	Art Education-II	MC	03	00	03
HEA-3204	Essential of Interior Design-II	MC	01	02	03
HEA-3205	Islamic Art	MC	03	00	03
HQT-0001	Holy Quran with Translation Tajveed and Tafseer	COM			1P



Semester 7 th			Credit Hrs: 16		
Course Code	Course Title	Category	Lec. Hrs	Lab Hrs	Cr. Hrs
HEH-4101	Internship	MC	00	03	03
HEA-4102	Art Appreciation -I	MC	03	00	03
HEA-4103	Drawing and Painting	MC	00	03	03
HEH-4104	Seminar or Workshop	MC	00	01	01
HQT-0001	Holy Quran with Translation Tajveed and Tafseer	COM			IP
Elective: Students may choose 2 courses from the following:					
HEA-4105	Sculpture	MC	01	02	03
HEA-4106	The craft of hand weaving- I	MC	01	02	03
HEA-4107	Hand Built Pottery	MC	01	02	03
HEA-4108	Graphic Communication -I	MC	01	02	03
HEA-4109	Textile Designing and Printing	MC	01	02	03
HEA-4110	Methods of Art Education-I	MC	03	00	03
Semester 8 th			Credit Hrs: 15		
Course Code	Course Title	Category	Lec. Hrs	Lab Hrs	Cr. Hrs
HEH-4201	Capstone Project	MC	00	03	03
HEA-4202	Art Appreciation -II	MC	03	00	03
HEA-4203	Painting and Print Making	MC	01	02	03
HQT-0001	Holy Quran with Translation Tajveed and Tafseer	COM			S/U
Elective: Student may choose 2 courses from the following					

HEA-4204	Calligraphy	MC	01	02	03
HEA-4205	The craft of hand Weaving-II	MC	00	02	03
HEA-4206	Ceramics	MC	00	02	03
HEA-4107	Graphic Communication - II	MC	00	03	03
HEA-4108	Interior Design	MC	01	02	03
HEA-4209	Methods of Art Education-II	MC	03	00	03

Category and Division of Courses

GE: General Education (30 Credit Hours)

BS Home Economics General Education (31 Credit Hours)

MC: Major Courses (Minimum 30 Credit Hours in first four Semesters)
Major Courses 57 Credit Hours minimum.

Total Departmental Major Courses 87 Credit Hours.

IDC: Inter-Disciplinary Courses (13 Credit Hours)

Compulsory: Holy Quran with Translation, Tajveed and Tafseer (01 Credit Hours) Total Credit Hours: 128

SCHEME OF STUDIES (Semester Wise)

Semester 1 st					
Course Code	Course Title	Category	Lec. Cr.	Lab. Cr.	Cr. Hrs
ENG-1103	Functional English	GE	03	00	03
ICP-1129	Ideology and Constitution of Pakistan	GE	02	00	02
QTR-1127	Quantitative Reasoning-I	GE	03	00	03



BFD-1101	History of Art and Culture-I	MC	01	00	01
BFD-1102	Design History and Theory	MC	02	00	02
BFD-1103	Mathematics(Material & Models)	IDC	01	02	03
BFD-1104	Basic Drawing-I	IDC	00	03	03
HQT-0001	Holy Quran with Translation, Tajveed, and Tafseer	COM	1	--	IP
Total					18
Semester 2nd					
Course Code	Course Title	Category	Lec. Cr.	Lab. Cr.	Cr. Hrs .
ENG-1207	Expository Writing	GE	03	00	03
ISL-1212	Islamic Studies	GE	02	00	02
QTR-1128	Quantitative Reasoning-II	GE	03	00	03
BFD-1201	Pattern-I (Fundamentals of flat Pattern calculations)	MC	01	01	02
BFD-1202	Sewing-I (Machine and Hand)	MC	01	01	02
BFD-1203	Mathematics (Geometry and	GE	01	02	03

	drafting)				
BFD-1204	Basic Drawing-II	IDC	00	03	03
HQT-0001	Holy Quran with Translation, Tajveed and Tafseer	COM	--	--	IP
Total					18
Semester 3rd					
Course Code	Course Title	Category	Lec. Cr.	Lab. Cr.	Cr. Hrs .
ENG-2107	Academic and Technical Writing and Research and Communication Skills	GE	03	00	03
ICT-2126	Applications of Information and Communication Technologies (ICT)	GE	02	01	03
BFD-2101	Sewing-II	MC	01	02	03
BFD-2102	Pattern-II (Mathematics of Pattern)	IDC	01	01	02
BFD-2103	Draping-I	MC	01	02	03
BFD-2104	Digital Fashion-I	IDC	00	02	02
BFD-2105	Textile Basic	GE	01	01	02
HQT-0001	Holy Quran with	COM	--	--	IP



	Translation, Tajveed and Tafseer				
	Total				18
Semester 4th					
Course Code	Course Title	Category	Lec. Cr.	Lab. Cr.	Cr. Hrs .
SOC-2221	Sociology	GE	02	00	02
ETRE-2208	Entrepreneurship	GE	02	00	02
BFD-2201	Human Anatomy Drawing	MC	00	01	01
BFD-2202	Fashion Design Studio-I	MC	01	02	03
BFD-2204	Draping-II	MC	01	02	03
BFD-2205	History of Costume	MC	02	00	02
BFD-2206	Textile Design-I	GE	01	01	02
HQT-0001	Holy Quran with Translation, Tajveed and Tafseer	COM	--	--	S/ U
Total					18
Semester 5th					
Course Code	Course Title	Category	Lec. Cr.	Lab. Cr.	Cr. Hrs .
BFD-3101	Pattern-III	MC	01	02	03

BFD-3102	History of Costume and Fashion	MC	02	00	02
BFD-3103	Digital Fashion-II (Portfolio and CAD/CAM)	MC	00	02	02
BFD-3104	Textile Design-II (Technical analysis of fabrics and surface decoration)	MC	01	02	03
BFD-3105	Fashion Design Studio-II (Trend Forecast and Project)	MC	01	02	03
BFD-3106	Introduction to Marketing and Merchandising	IDC	02	00	02
HQT-0001	Holy Quran with Translation, Tajveed and Tafseer	COM	--	--	S/ U
Total					15
Semester 6th					
Course Code	Course Title	Category	Lec. Cr.	Lab. Cr.	Cr. Hrs .
BFD-3201	Pattern and Grading-I11 (Mathematics)	MC	01	02	03
BFD-3202	Draping-III	MC	01	02	03



BFD-3203	Sewing-III	MC	01	02	03
BFD-3204	Textile Design-III	MC	00	02	02
BFD-3205	Fashion Design Studio-III	MC	01	02	03
BFD-3206	Coutre Finishes (Hand Sewing)	MC	00	01	01
HQT-0001	Holy Quran with Translation, Tajweed and Tafseer	COM	--	--	IP

Total **15**

Semester 7th

Course Code	Course Title	Category	Lec. Cr.	Lab. Cr.	Cr. Hrs
BFD-4101	Internship	MC	00	00	03
BFD-4102	Pattern-V	MC	01	02	03
BFD-4103	Fashion Design Studio-IV (Design Research Methodology)	MC	01	02	03
BFD-4104	Sewing-IV	MC	01	02	03
BFD-4105	Draping-IV (Haute Couture)	MC	01	02	03
BFD-4106	Textile Design-IV (Research and Development)	MC	00	02	02
HQT-0001	Holy Quran with Translation, Tajweed and Tafseer	COM	--	--	IP
Total					17

GE: General Education (33 Credit Hours) Total Major courses 81 minimum	
IDC: Inter Disciplinary Courses (13 Credit Hours)	
Compulsory: Holy Quran with Translation, Tajweed and Tafseer	
Total: (128 Credit Hours).	
BS Fashion and Design fulfillment 134 Credit Hours requirements per UGE policy 2023 by HEC	



STUDENTS' MESSAGES

My journey in Home Economics has been one of immense learning, growth, and creative discovery. The department has provided me with the tools to push boundaries, blending tradition with innovation in ways I never imagined. The support and mentorship of the faculty, combined with an inspiring environment, allowed me to realize my potential and refine my skills. As I move forward in my career, I carry with me the invaluable lessons and experiences that this department has imparted, and I will always be grateful for the foundation it has provided me.



Maheen Khan
BS 8th semester

As a student in the Department of Home Economics, I've gained valuable knowledge in food and nutrition, textile art, and design. Through hands-on projects and coursework, I've developed skills in managing nutrition, creating textile designs, and understanding family needs. My education has given me practical experience and a strong foundation, which I am excited to apply in real-world settings. I look forward to using my skills to contribute to Food and Nutrition.



Momina Shakoor
BS 8th Semester





DEPARTMENT OF International Relations

Vision

Building on the existing strong foundation of academic excellence, knowledge and understanding, Department of International Relations will advance into the highest tier of the country's leading department, thereby expanding the scope of its reach and the strength of its world-wide impact.

Programs Offered

BS International Relations





Coordinator:

Dr Abida Rafique

Tel: +92-5827-961079

E-mail: chairperson.ir@must.edu.pk

Message from Coordinator:

Since its inception in 2018, the Department of International Relations at Mirpur University of Science and Technology (MUST) has been dedicated to fostering a deep understanding of global dynamics and equipping our students with the skills necessary to navigate and shape the complex world we live in. Guided by the university's founding motto, "Wisdom and Virtue," we continue to build upon the legacy of excellence established by our predecessors, ensuring that our graduates are not only well-versed in theoretical and practical knowledge but are also empathetic and culturally aware global citizens.

As the Incharge of the IR department, I am committed to furthering this mission by placing a strong emphasis on developing critical thinking and research skills in our students. In today's interconnected world, it

Is imperative that our future leaders possess the ability to analyze, question, and innovate in ways that contribute positively to society. With the continued support of our esteemed Vice Chancellor, the Dean of the Faculty of Social Sciences & Humanities, and the vibrant community of Azad Jammu and Kashmir, we are confident in our ability to produce graduates who are not only capable but are also driven by a sense of duty to make a meaningful impact.

In the six years since its establishment, the Department has welcomed more than 300 students from across Pakistan. This remarkable growth is a testament to the unique and global intellectual community we are building here at MUST. We remain dedicated to nurturing this environment, ensuring that our students are prepared to face the challenges of the future with both confidence and competence.

I invite you to join us on this journey of discovery, learning, and growth as we strive to shape the leaders of tomorrow.



Faculty Members



Mr. Taimoor Akbar Chaudhury
Designation: Assistant Professor
Qualification: M.Phil.
Area of interest: Middle Eastern Politics, Gender Issues, Disaster Diplomacy, and Governance & Public Polic
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Mr. Mustansar Abbas Klasra
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Ms. Aneela Kiran
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Mr. Abdul Qadir
Designation: Lecturer (visiting)
Qualification: MPhil
Area of Interest: International Security, Politics, Non-Kinetic Warfare.



Faculty Members of International Relations



Introduction: International Relations

Established in Fall 2018 with more than 230 students currently enrolled, the department of International Relations is missioned to support learning, discovering and engaging the students in research on current local and global trends in politics, which will have a positive impact in development of Azad Jammu and Kashmir. Bachelor degree in International relations department prepares students to meet the global and national challenges. Future leaders will need to balance the goals of economic success with the constraints of greater social and political responsibility. Students are instructed by a distinguished faculty and learn to integrate changing human and information resources with continually developing technology.

Mission

The Department of International Relations is ought to be a diverse, inclusive scholarly community dedicated to bringing the benefits of its research, scholarship and creative activity, and educational excellence to global and local communities in ways that impact and positively change the world. We view the three traditional pillars of the public higher education mission; research, education, and service, as interdependent endeavors that continually enrich and inform each other. Ground breaking research, transformative educational experiences, and deeply engaged service to its communities will define the Department of International Relations' mission as a premier, research-intensive Department.

Objectives

The Department of International Relations will enhance its national and international stature by achieving a number of specific

academic objectives. Among the **strategic goals** articulated for the immediate future, the Department will:

The primary objective of the BS 4-Year programme in International Relations is to acquaint the students with the broader concepts and theories of the discipline as well as inducing a broader comprehension and instilling an analytical approach towards political history of the world, contemporary conflicts, domestic politics and future global trends.

While designing the syllabus for the subjects, the following objectives were kept in mind:

It is expected that the graduates of this programme shall have a sound grip on the subject. To achieve this objective an extensive and intensive program of BS (4 years) in International Relations is developed.

Second, an interdisciplinary approach is adopted while designing the structure of the program. It will help the students to interact meaningfully with other branches of knowledge so as to ensure a better understanding of the state and society. Furthermore, the significant multidisciplinary nature of the discipline makes the discourses cosmopolitan and equally challenging.

Third, equipping the students with the best available research tools and techniques is one of the cardinal objectives of this program. The possible outcome is a class of graduates having sound analytical and critical aptitude, and to ensure their ability to evaluate the phenomena at hand more succinctly.

Fourth, our job is not to develop a generation of theorists only. Theory and practice go hand in hand. Therefore, the structure of the program is conceived and developed to ensure that the



graduates are able to establish and develop a powerful link between theory and practice.

Career Prospects after Bachelor's in International Relations

A Bachelor's degree in International Relations allows a student to pick from a wide range of occupations such as: diplomacy, lobbying, political analysis, international law, intelligence, researcher, historian, political scientist, and planner. A graduate may adopt professions as teacher, news anchor, NGO activist, and many other entry-level jobs. It prepares the candidate for pursuing advanced study, after which the doors of academic positions open in colleges and universities.



Admission Criterion:
FA/F.Sc or equivalent with at least 45% marks.

- Degree Requirements:**
- Degree Title: BS (04 Year) International Relations
 - Launched in Fall 2018
 - Morning program on a regular basis
 - Admissions are done once in an academic year
 - Duration = 04 years
 - Semester System; 8 semesters
 - Credit hours = 127
 - Score criteria = CGPA
 - Session Fall

PROGRAM LAYOUT FOR BS INTERNATIONAL RELATIONS

Compulsory General Courses (The student has no choice)	Interdisciplinary Courses to be Chosen from Other Departments	Discipline-Specific Foundational Courses
13 courses	4 courses	28 courses
31 Credit hours	12 Cr. Hours	84 Credit hours



SEMESTER-WISE SCHEME OF STUDIES FOR BS INTERNATIONAL RELATIONS

First Semester		
Course Code	Course Title	Cr. Hrs.
HQT-0001	Holy Quran: Translation, Tajveed, and Tafseer	S/U
ENG-1103	Functional English**	3
ICT-1126	Application of Information and Communication Technologies (ICT)**	3 (2+1)
POS-1101	Introduction to Political Science	3
BIR-1101	Introduction to International Relations	3
BIR-1102	Evolution of State	3
	TOTAL	15
Second Semester		
HQT-0001	Holy Quran: Translation, Tajveed, and Tafseer	S/U
ENG-1207	Expository English**	3
ISL-1212	Islamic Studies**	2
ICP-1229	Ideology and Constitution of Pakistan**	2
BIR-1203	International Relations Since 1648 –1945	3
BIR-1204	Approaches and Theories of International Relations	3
BIR-12--	General-I	3
	TOTAL	16
Third Semester		

HQT-0001	Holy Quran: Translation, Tajveed, and Tafseer	S/U
QTR-2327	Quantitative Reasoning-I**	3
CCE-2330	Civics and Community Engagement**	2
ART-2310	Arabic	2
BIR- 2305	Regional and International Organizations	3
BIR-2306	International Relations Since 1945–2000	3
BIR-23--	General- II	3
	TOTAL	16
Fourth Semester		
HQT-0001	Holy Quran: Translation, Tajveed, and Tafseer	S/U
QTR-2428	Quantitative Reasoning –II**	3
EDS-2424	Everyday Science	3+0
ETRE-2413	Entrepreneurship**	2
BIR-2407	International Relations in New Millennium	3
BIR-2408	Foreign Policy Analysis	3
BIR-24--	General-III	3
	TOTAL	17
Fifth Semester		
HQT-0001	Holy Quran: Translation, Tajveed, and Tafseer	S/U
BIR-3509	Strategic Studies	3
BIR-3510	Globalization and International Relations	3
BIR-3511	Research Methodology	3
BIR-3512	Geo-Political Structure of the World	3
BIR-35--	General-IV	3
	TOTAL	15



Sixth Semester		
HQT-0001	Holy Quran: Translation, Tajveed, and Tafseer	S/U
BIR-3613	Foreign Policy of Pakistan	3
BIR-3614	Public International Law	3
BIR-3615	International Security	3
BIR-3616	International Politics of Human Rights	3
BIR-3617	International Political Economy	3
	TOTAL	15
Seventh Semester		
HQT-0001	Holy Quran: Translation, Tajveed, and Tafseer	S/U
BIR-4718	Comparative Foreign Policies of the US, Russia, and China	3
BIR-4719	Peace Studies	3
BIR-4720	Diplomacy	3
BIR-4721	Capstone Project-I****	3
BIR-4722	Elective- I	3
	TOTAL	15
Eight Semester		
HQT-0001	Holy Quran: Translation, Tajveed, and Tafseer	S/U
BIR- 4823	Comparative politics	3
BIR- 4824	Conflict management and resolution	3
BIR- 4825	Arms Control, Disarmament, and Nuclear Proliferation	3
BIR-4826	Dynamics of Kashmir Conflict	3
BIR-4827	Elective -II	3

BIR-4828	Or Capstone project-II***	
	TOTAL	15
Summer		
BIR- --29	Internship****	3
GRAND TOTAL	12 +1(NC) +4 + 28 = 45 Courses	127 Cr. Hrs

*The university may offer any course within the broader subject domain/cluster to meet the given credits.

**HEC designed model courses or MUST model courses may be used

*** Supervised and graded by faculty member(s). For Capstone Project-I, students can enroll in individual research reports on any contemporary issue or group projects depending upon the availability and number of faculty members in the department. For Capstone Project-II, only selected students would be nominated to continue and expand their research in Project-I if they desire. While Capstone Project-I is compulsory for all students, Capstone Project-II is optional.

****IR_29 INTERNSHIP is compulsory and may be offered in any semester, including summer, after 2nd year depending upon availability.

List of Non-IR/General / Interdisciplinary Courses

(Course code in the sequence starts from IR-__30 till IR-__50)

The following is the list of elective/optional courses to be offered by the concerned department/institutions. The contents of the course(s) as well as the core and the suggested books to be recommended by the faculty at the time, a course is offered.

1. Introduction to American Politics
2. Introduction to Economics
3. Introduction to History
4. Introduction to Philosophy
5. Introduction to Geography
6. Everyday Science



7. Ancient Greek and Western Political Thought
8. Muslim Political Thought
9. Introduction to Law
10. Introduction to Sociology
11. Introduction to Education
12. Visual Politics
13. Introduction to Public Administration
14. Introduction to the Economy of Pakistan
15. Introduction to Anthropology
16. Introduction to Media and Communication Studies
17. Political History of Pakistan: 1947 to present
18. UN Sustainable Development Goals (SDG's)
19. Constitutional development in Pakistan
20. Introduction to Gender Studies
21. Introduction to Disaster Management

List of Elective Courses

The following is the list of elective/optional courses to be offered by the concerned department/institutions. The contents of the course(s) as well as the core and the suggested Books shall be pointed out by the faculty at the time, a course is offered.

A. Concepts and Issues (Course Codes in the Sequence Start from IR-__51 till IR__84)

1. Comparative Political Systems of the UK, US, Russia, and China (Any two)
2. Foreign and Security Policies of the European Union.
3. Emerging Regional and World Orders
4. Research Methodology-II

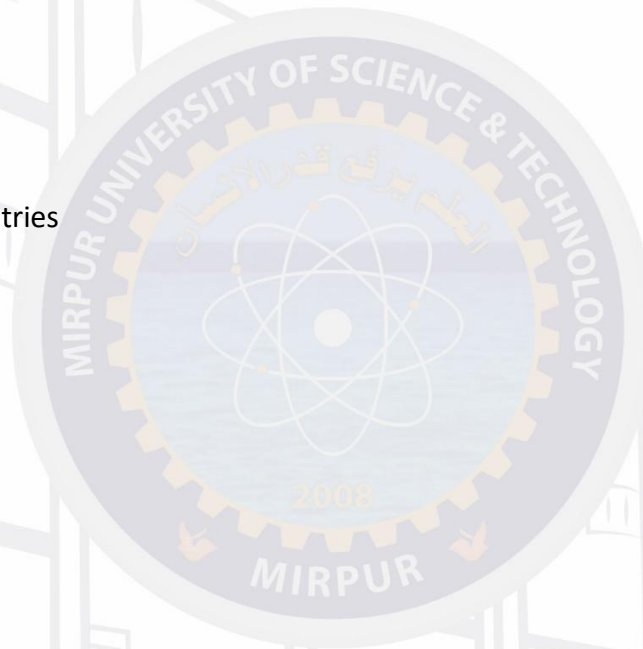
5. Modernization and Democratization in the Muslim World
6. Nuclear Non-proliferation Regime
7. Pakistan Defence and Security Policy
8. Nuclearization of South Asia
9. Kinetic and Non-Kinetic Warfare
10. Politics of the Indian Ocean
11. Use of Force in International Law
12. Foreign Policy of India
13. Contemporary Political Ideologies
14. International Migration and Politics
15. Terrorism and Counter-terrorism
16. . International Relations in Islam
17. Non-state Actors in International Relations
18. Media and International Relation
19. Gender and International Relations
20. International Humanitarian Law
21. United Nations: Reforms and Restructuring
22. OIC: Reforms and Restructuring
23. Enlightened Moderation and the Muslim World
24. MNCs and NGOs in International Relations
25. National Liberation Movements and Decolonization
26. Ethnic Conflicts in Global Perspective
27. Religion, Ideology and International Relations
28. Science, Technology and International Relations
29. Ethics and Morality in International Relations
30. Power Politics and Beyond
31. International Economic Group
32. International Political Theory



- 33. Religion and Politics
- 34. Seminar on Contemporary Issues

B. Area Studies (Course Codes in the Sequence Start from IR-__85 till IR__97)

- 1. South Asia
- 2. South East Asia
- 3. Asia-Pacific
- 4. Central Asia and Caucasus
- 5. Western Europe
- 6. Eastern Europe
- 7. North Europe: Scandinavian-Nordic Countries
- 8. Central America
- 9. South America
- 10. North America
- 11. Middle East and North Africa (MENA)
- 12. Southern Africa
- 13. Central Africa





STUDENTS' MESSAGES

This is Aqib Ahmed done with degree in International Relations from Mirpur University of Science and Technology (MUST). This was a strategic choice for me to understand global politics and international affairs. As a leading institute in Azad Kashmir, MUST offer a robust curriculum that combines theoretical knowledge with practical insights into the dynamics of global diplomacy, international law, and global governance. The university's commitment to academic excellence, experienced faculty, and a conducive learning environment make it an ideal place to prepare for a career in Electronic and Print Media, Defence and Strategic global analyst, a diplomat and much more. The degree equips



I am Amna Rahim, a student of International Relations. My dream is to work for the United Nations and MUST have provided me with the ideal environment to pursue this goal. The university is one of the most prestigious institutions in Azad Kashmir, known for its commitment to academic excellence. The highly qualified and dedicated teachers at MUST play a crucial role in my academic journey, offering support and motivation every step of the way. Their expertise and guidance inspire me daily to strive towards my aspirations. The university's progressive approach and focus on cultivating a strong foundation in International



I am Sabeen Zahid from International Relations department. I choose International Relations because IR gives insights into world problems and provide us with many career opportunities such as: diplomates, work in international organizations governing bodies, governmental organizations and multinational companies.

I choose MUST for IR because it is one of the best university of Aj&K and its faculty is renowned for their expertise and commitment to student development, providing a rich learning environment. The campus is equipped with modern facilities, and the university encourages active student engagement through diverse extracurricular activities and motivates students for achieving their goals.





INSTITUTE OF Islamic Studies

Mission

Uniting peoples throughout the AJ&K on the platform of Shari'ah. Sharing towards making of a knowledgeable, tolerant, prosperous and refined society under the banner of Quran and Sunnah in AJ&K according to vision of MUST MIRPUR.

Degree Programs Offered

BS Islamic Studies
BS Arabic
MPhil in Islamic Studies



Director:

Dr. Asgher Ali Khan

Tel: +92-5827-961021

Email: director.is@must.edu.pk

Message from Director:

Praise be to Allah who has guided us to the blessing of Islam and peace be upon our Prophet Muhammad whom Allah has sent to teach the human being the Quran and wisdom, and peace be upon his righteous family and companions. It gives me great pleasure to extend a very warm welcome to all of you on behalf of the Faculty and Staff, to the Institute of Islamic Studies (IIS) at MUST Mirpur AJK. (IIS) has a 40-year-long history of dedication, spreading knowledge, and sustaining Islamic teachings. (IIS) is the constituent body of the Mirpur University of Science and Technology. It has been working under the banner of UAJK since 1980 (under MUST since 2009). It has produced hundreds of graduates who are serving the nation in different capacities. Where we continuously break new ground in the world of Islamic studies in both academia and research. We believe that clarifying the spirit of our Islamic heritage and its ability to serve all of humanity through its dynamic

contributions to all aspects of life is a critical mission in today's world. The work ethics in this department is very simple: We respect and care for each other. Students, Faculties and Staffs are connected like a family, and we support each other in our studies and research and encourage each other to succeed. I welcome you to be a part of this family in this new academic year. I wish each of you great success. If you are not yet a member of our IIS family, I encourage you to become a part of it



Faculty Members of IIS

Dr. Asgher Ali Khan

Designation: Assistant Professor

Qualification: PhD

Area of interest: Quranic Science

E-mail: director.is@must.edu.pk

Dr. Sajjad Ahmed

Designation: Assistant Professor

Qualification: PhD

Area of interest: Hadith & Seerah

e-mail Contact: sajjad.iis@must.edu.pk

Mr. Nasir Ud Din

Designation: Lecturer

Qualification: MPhil

Area of interest: Comparative Religions

E-mail: nasir.isl@must.edu.pk

Ms. Basharat Rafique

Designation: Lecturer.

Qualification: MPhil

Area of interest: Quran & Tafseer

E-mail: basharat.iis@must.edu.pk

Mr. Gulam Mustafa

Designation: Lecturer

Qualification: MPhil

Area of interest: Fiqh & Dawh

E-mail: mustafa.iis@must.edu.pk

Dr. Tahir Aslam

Designation: Assistant Professor

Qualification: PhD

Area of interest: Arabic language and literature

E-mail Contact: tahir.iis@must.edu.pk

Mr. Muhammad Imran Khan

Designation: Lecturer

Qualification: MPhil

Area of interest: Fiqh

E-mail: Imran.isl@must.edu.pk

Dr. Shehbaz Shabbir

Designation: Lecturer

Qualification: PhD

Area of interest: Fiqh

E-mail: shebaz.iis@must.edu.pk

Mr. Waqar Ahmed

Designation: Lecturer.

Qualification: MPhil

Area of interest: Hadith & Fiqh

E-mail: waqar.iis@must.edu.pk

Mr. Muhammad Tasneem Azeem

Designation Lecturer

Qualification MPhil

Area of interest Islamic Studies

e-mail Contact tasneem.568@gmail.com

Ms. Sadia Rehman

Designation: Lecturer

Qualification: MPhil

Area of interest: Islamic Studies

E-mail: sadiarehman613@gmail.com



Faculty Members of IIS



BS in Islamic Studies

Objectives of IIS

- To produce competent scholars who are well versed in basic Islamic disciplines and capable of guiding the Muslim Ummah, conversant with today's changes, and able to meet the requirements of the future.
- To Provide in-depth knowledge of basic Islamic Sciences Such as Quran & Hadith, Fiqh, Islamic History, Islamic thought, Seerah & Dawah.
- To Provide Skills of Islamic Education with exposure to modern scientific, technological, and social development.

Mission Statement for BS Islamic Studies

To polish and groom by providing Islamic education and training to the new generation to become a useful group of society by studying the diverse fields of Islamic Studies. The students are encouraged to attain quality education.

Program objectives

- To produce graduates with high conceptual backgrounds.
- Disseminating the knowledge to students from the perspective of different Islamic schools of thought.
- Developing analytical skills to comprehend fiqh, hadith, and Tafseer of the Quran.
- Enabling students to become good and vibrant Islamic scholars in order to serve Islam and its sublime purpose by imparting knowledge of Islamic thoughts.
- Contributing to right Islamic thinking.
- Preparing students for Islamic education at different levels.

Admission Criterion:

F. Sc/ FA/ A levels or equivalent at least second division or as per university rules.

Duration:

8-12 Semester

Scholarships Offered:

HBL Foundation Scholarship Application
MUST Need Base Scholarship
HEC Need Base Scholarship
HEC Ehsaas Scholarship



Scheme of Study (Fall/2024)

Compulsory Requirements (the student has no choice)

9courses

	Subject	Cr.
1	English I	3
2	English II	3
3	English III	3
4	English IV/ Uni. Optional*	3
5	Pakistan studies	2
6	Islamic studies/ethics	2
7	Math/Stat-I	3
8	Math/Stat-II/Uni. optional**	3
9	Introduction to Computer	3
		25

GeneralCoursestobe chosen from other departments

7-8courses

	Subject	Cr.
1	Economics	3
2	World History/Urdu	3
3	International Relations	3
4	General Science/Introduction to Management	3
5	Sociology	3
6	Mass Communication	3

* University/Department has the option to recommend any other Course in lieu of English IV

7	Logic/Computer	3
8	Psychology OR any other subject from the list of General subjects	3
		24

Basic Courses for those who have Khassah certificate from one of the five Madaris Boards (Tanzeemat al-Wifaq) recognized by the HEC

3 courses

	Subject	Cr.
1	Intermediate English-1	NC
2	Intermediate English-2	NC
3	Intermediate Pak Studies	NC
		NC



Scheme of Study for BS in Islamic Studies

First Semester		
Course Code	Subject	Credits
ENG-1103	Functional English	3
ICT-1126	Application of Information and	2
EDS-1101	Everyday Science	3
LAW-1131	Introduction to Law	3
ISL-3101	Introduction of Topics of Holy	3
Total		17
Second Semester		
Course Code	Subject	Credit
HQT-0001	Teaching of Holy Quran with	NC
ARA-1201	Arabic (Compulsory)	3
ENG-1207	Expository Writing	3
ISL-1212	Islamic Studies	3
ISL-1201	Fiqh al Seerat al Nabi	3
ISL-1202	Qasus Ul Quran (Quranic Stories)	3
URD-1222	Urdu (02 Credits)	2
QTR-1227	Quantitative Reasoning-I	3
Total		20
Third Semester		
Course Code	Subject	Credit
MAT-3115	Mathematics	3
ENG-4107	English-III	3
ISL-4101	Computer Applications in Islamic	3
ECO-4106	Economics	3
URD-4122	Urdu	3
ISL-4102	'Uloom-al-Quran	3

Total		18
Fourth Semester		
Course Code	Subject	Credits
ENG-4207	English-IV	3
SOC-4221	Sociology (General-VII)	3
PSY-4219	Psychology (General – VIII)	3
ISL-4201	History & Compilation of Hadith	3
ISL-4202	Arabic Language-II	3
ISL-4203	History of Fiqh	3
Total		18
Fifth Semester		
Course Code	Subject	Credit
ISL 5101	Study of Sirah of Holy Prophet	3
ISL 5102	History of Tafsir and its Principles	3
ISL 5103	Textual Study of al-Quran-I	3
ISL 5104	Textual Study of Hadith-1	3
ISL 5105	Study of Islamic Fiqh-I	3
Total		15
Sixth Semester		
Course Code	Subject	Credits
ISL-5201	Textual Study of Muslim Family	3
ISL-5202	Textual Study of al-Quran – II	3
ISL-5203	Ethics of Disagreement in Islam	3
ISL-5204	Comparative Study of World	3
ISL-5205	Textual Study of Fiqh al Akbar	3
ISL-5201	Textual Study of Muslim Family	3
Total		18



Seventh Semester		
Course Code	Subject	Credit Hrs.
ISL-6101	Al- Dawah wal Irshād (M-8)	3
ISL-6102	Usool al-Fiqh (F-10)	3
ISL-6103	Methodology of Research in	3
ISL-6104	History of Islamic Culture and	3
ISL-6105	Study of Islamic Fiqh I (فقه)	3
ISL-6106	Study of Islamic Fiqh II (فقه)	3
Total		18
Eighth Semester		
Course Code	Subject	Credit Hrs.
ISL-6201	Islamic Economics	3
ISL-6202	Islamic Morals	3
ISL-6203	Philosophy and ‘ilm al-Kalam	3
ISL-6204	Thesis/Research Project	6
Total		15
Bridge Semester		
Course Code	Subject	Credit Hrs.
ISL-3101	Introduction of Topics of Holy	3
ISL -3202	Arabic Language -I	3
ISL-4101	Computer Application in Islamic	3
ISL-4102	Uloom al Quran	3
ISL-4103	History of Fiqh	3
ISL-4201	History & Compilation of Hadith	3
Total		18

BS Arabic

Mission Statement for BS Arabic

Illumination of Arabic Language & Literature in areas including usage of dictionaries, the study of Research Methodologies, Phonetics, Arabic literature (poetry and prose), Rhetoric, and criticism. It is expected that the students graduating with this degree will be able to implement/apply the knowledge that they acquire during this program, in their future professional and personal activities.

Program objectives

- To make the students aware of the History of the Arab world, and its geographical, cultural, political, and economic conditions.
- To enable the students to study the works of renowned writers, poets, and critics of Arabic language and literature.
- The students are aware of the core linguistic concepts of the Arabic language.
- To equip the students with the skills of reading, writing and speaking Arabic.
- To enable the students to conduct research on various topics
- To create in the students the capability of translating documents from English to Arabic and vice versa.

Breakup of BS Arabic

Title of the Degree	BS. Arabic
Entrance Requirement	F. Sc/ FA/ A levels or equivalent at least second division or as per university rules

Duration of the Program	8-12 Semester
Credits (Credit Hours)	Course Work: ١٣٣ Credits hrs.
Evaluation Criteria (Examination)	As per University Rules
Approval for the Scheme of Studies	Scheme of Study & Lay Out of the Courses

SCHEME OF STUDIES FOR BS (4 YEARS) ARABIC

المنهج الدراسي لبرنامج (BS) أربع سنوات في اللغة العربية

الفصل الدراسي الأول 1 st Semester		
Course Code	Course Title	Credit Hrs.
ENG-3107	English I – I انجليزية I	3
PAK-3117	Pakistan Studies – الدراسات الباكستانية	2
MAT-3115	Math الرياضيات	3
ARA-311١	Arabic Writing Skills – مهارات الكتابة العربية	3
IR-3110	International Relations العلاقات الدولية	3
ARA-311٢	Applied Grammar I - I القواعد التطبيقية I	3
MC-311٣	Communication skills – مهارات الإتصال	Non- CH
Total		17
الفصل الدراسي الثاني 2 nd Semester		
Course Code	Course Title	Credit Hrs.
ENG-3٢07	English – II – II انجليزية II	3

ISL-3٢04	Islamic Studies/ Ethics- الدراسات الإسلامية / الأخلاقيات	2
ARA-3201	Applied Grammar II -II القواعد التطبيقية II	3
ARA-3202	Arabic World/ Muslim World العالم العربي / العالم الإسلامي	3
ARA-3203	History of World/ Islamic Civilization تاريخ العالم/ الحضارة الإسلامية	3
COM-3205	Computer (General course) المدخل الى الحاسوب	3
Total		17
الفصل الدراسي الثالث 3 rd Semester		
Course Code	Course Title	Credit Hrs.
ENG-4107	English-III III انجليزية III	3
COM-4101	Introduction to Computer المدخل الى الحاسوب	3
ARA-4101	Applied Grammar III -III القواعد التطبيقية III	3
ARA-4102	Literature Criticism النقد الأدبي	3
ARA-4103	Functional Arabic –II العربية الوظيفية II	3
ARA-4104	Prosody – علم العروض	2
ECO-4106	Economics الاقتصاد	Non-CH
Total		17
الفصل الدراسي الرابع – 4 th Semester		
Course Code	Course Title	Credit Hrs.
ENG-4٢٠٧	English- IV / Education/ Uni. Optional انجليزية IV/ علم التربية/ خيار الجامعة	3



ARA-4201	Applied Grammar IV -IV القواعد التطبيقية	3
ARA-4202	الإنشاء والمحاضرة I	3
ARA-4203	Arabic Media /الأعلام العربي/ Geography	3
ARA-4204	Functional Arabic II -II العربية الوظيفية	3
SOC-4221	Sociology/علم الاجتماع	Non-CH
Total		15
5th Semester – الفصل الدراسي الخامس		
Course Code	Course Title	Credit Hrs.
ARA-5101	Rhetoric(علم البيان)	3
ARA-5102	Arabic Phonology & Tajweed علم الأصوات والتجويد	3
ARA-5103	الإنشاء والمحاضرة II	3
ARA-5104	Religious Literature (Quran) الأدب الديني (القرآن)	3
ARA-5105	Religious Literature (Hadith) الأدب الديني (الحديث)	3
ARA-5106	Introduction to Linguistics I - I المدخل إلى علم اللغة	2
Total		17
6th Semester – الفصل الدراسي السادس		
Course Code	Course Title	Credit Hrs.
ARA-5201	Classical Arabic Prose النثر العربي القديم	3
ARA-5202	Introduction to Linguistics II -II المدخل إلى علم اللغة	3
ARA-5203	History of Arabic Literature I - I تاريخ الأدب العربي	3

ARA-5204	Classical Arabic Poetry الشعر العربي القديم	3
ARA-5205	Methodology of Research- منهج البحث	3
Total		15
7th Semester – الفصل الدراسي السابع		
Course Code	Course Title	Credit Hrs.
ARA-6101	Modern Arabic Prose النثر العربي المعاصر	3
ARA-6102	Modern Arabic Poetry الشعر العربي المعاصر	3
ARA-6103	History of Arabic Literature II II تاريخ الأدب العربي	3
ARA-6104	Applied Research / البحث التطبيقي	3
ARA-6106	Translation I/ I الترجمة I	3
ARA-6107		2
Total		17
8th Semester – الفصل الدراسي الثامن		
Course Code	Course Title	Credit Hrs.
ARA-6201	Comparative Literature – الأدب المقارن	3
ARA-6202	Arabic Literature in the sub-continent الأدب العربي في شبه القارة	3
ARA-6203	Translation –II/II الترجمة II	3
ARA-6204	Sources of Language / مصادر اللغة	3
ARA-6205	Computer Applications in Arabic	2
ARA-6206	Thesis/ Project المشروع/ البحث	3
Total		15



MPhil in Islamic studies

Mission Statement for MPhil Islamic Studies

Further strengthening of research at the MPhil level addressing contemporary issues. To polish and groom by providing Islamic education and training to the new generation to become a useful group of society by studying the diverse fields of Islamic Studies. The students are encouraged to attain quality education

Program Objectives

1. Promotion of true Islamic Knowledge for betterment of the individuals and society.
2. To make the students capable of understanding and solving contemporary issues in the light of Islamic teaching.
3. Establish a cadre of specialists and professionals in different fields of Islamic Studies who can provide effective leadership and conduct quality research in various disciplines of Islamic Studies.
4. Developing analytical skills to comprehend fiqh, hadith, and tafseer of Quran.
5. Comparative study from the perspective of different Islamic school of thoughts.

Examination	Semester based	examinations	Annual
	CGPA	Percentage	
16-year	3.0 out of 4.0	50 %	2 nd Division

Admission Criterion & Selection Criterion:

A candidate seeking admission to the M. Phil Islamic Studies program as a whole-time / part-time student must:

- I) Have passed 16-year schooling with minimal grades
- II) The candidates are required to pass the admission test/NTS, arranged by the university.
- III) The selected candidates shall have to produce an attested degree within a month of their admission.
- IV) A candidate shall be selected based on cumulative merit to be determined from his / her past academic record and achievements in the written tests conducted by the Admission Committee of the Department concerned.

The allocation of marks for determining merit shall be as follows:

Academic Record	55 Marks
Admission Test	35 Marks
Interview	10 Marks
Duration:	4-6 Semester

Job Placement Opportunities

Lectureship in University/Colleges, Subject Specialist School cadre. Teachers School Cadre, Civil Services and Army Services.

Scheme of Study (M. Phil. Islamic Studies)

FIRST SEMESTER				
Code	Course Title	Lec.Hrs	Lab. Hrs	Credit Hrs
ISL-7101	Usul-e-Fiqh	3	0	3
ISL-7102	Usool-e-Tahqiq	3	0	3



ISL-7103	Tafseer ke Asaleeb-o-Manahij	3	0	3
ISL-7104	Islam & Mustashraqueen	3	0	3
2ND SEMESTER				
Code	Course Title	Lec.Hrs	Lab. Hrs	Credit Hrs
ISL-7201	Arabic Language & Literature	3	0	3
ISL-7202	Hadith & Uloom-ul-Hadith	3	0	3
ISL-7203	Uloom-ul-Quran	3	0	3
ISL-7207	Contemporary Islamic Movements	3	0	3
3RD & 4TH SEMESTER				
Code	Course Title	Lec.Hrs	Lab. Hrs	Credit Hrs
ISL-798	Seminar	0	0	01
ISL-799	Thesis	0	0	06
	Total	24	0	07



Alumni Messages

I am Maheen Nasir. It is a great pleasure to be a student of B.S. Islamic Studies in the Institute of Islamic Studies (MUST). I am impressed with the knowledge & environment given to students at IIS. Excellent academic environment and interaction with the faculty has given me tremendous confidence. The attitude and devotion of the faculty members towards students is remarkable. Certainly, I have made the right choice to structure myself for future endeavors.



Maheen Nasir

I am Mamoon Ul Rehman scholar of MPhil Islamic studies in IIS. Time has taught us that solutions to social problems do not lie in technology, but in human potential. Technological solutions are essential, but so is the significance people attribute to this information through Religion, culture or language. Experience shows us that research within the IIS MUST often provide these solutions. This is why the research conducted by our IIS faculty is so highly relevant and important. I am very proud of the fact that IIS MUST is one of the AJK's leading Institute in the field.



Mamoon Ul Rehman

I feel privileged and honored to be a part of this system which has enlightened my life. At IIS, teachers are active researchers, and teaching takes place in an informal context. All programmes are deeply rooted in research and are reviewed on an ongoing basis to meet the highest national and global quality standards. The Islamic Studies master's programme focuses on developing your understanding of 'Islam,' with special emphasis on the comparative study of Muslim society.



Amad Mazhar



DEPARTMENT OF
Law

Degree Program Offered
BA LLB (Hons)



Chairperson

Justice Muhammad Younas Tahir

Tel: +9828-960065

E-mail: Chairperson.law@must.edu.pk

Message from Coordinator:

I am delighted to introduce you to the Department of Law, where studying law will engage you in a dynamic learning experience and provide you with a high quality, well-regarded degree. Department of Law is one of the premier institutions imparting legal education, which has, within a short period, carved its name as an institution that provides unparalleled learning opportunities for its students. We are known to provide a highly inspiring and supportive environment in which to study law and to develop as a confident young professional. I hope that you find the information in this prospectus a useful starting point for exploring a degree with us.



Faculty Members



Mr. Saqib Shahbaz

Designation: Assistant Professor

Qualification: LLM (General)
(University of South Asia)

Area of interest: Constitutional Law

E-mail: saqib.law@must.edu.pk



Ms. Haleema Sadia

Designation: Lecturer

Qualification: LLM (International Islamic University (IIUI))

Area of interest: Islamic Commercial Law



Ms. Saiqa Naseer

Designation: Lecturer

Qualification: LLM (International Islamic University (IIUI))

Area of interest: Muslim Family Law

E-mail: saiqa.law@must.edu.pk



Mr. Nafees Ahmed Khan

Designation: Lecturer

Qualification: LLM (International Islamic University (IIUI))

Area of interest: Muslim Family Law

E-mail:



Mr. Ahsan Iqbal

Designation: Lecturer

Qualification: LLM (University of Bedfordshire)

Area of interest: Corporate Law and International Commercial Law

E-mail: ahsan.law@must.edu.pk



Ms. Arooj Aziz

Designation: Lecturer

Qualification: LLM (Queen Mary University London)

Area of interest: Corporate Law and International Commercial Law

E-mail: arooj.law@must.edu.pk



PROSPECTUS 2024-25



Ms. Bushra Nawaz

Designation: Lecturer

Qualification: LLM (Azad Jammu and Kashmir University)

Area of interest: Constitutional Law



Mr. Muhammad Waqar

Designation: Lecturer

Qualification: LLM (General) (BZU Multan)

Area of interest: Jurisprudence



Mr. Syed Shair Abbas Kazmi

Designation: Lecturer

Qualification: M.Phil. (Ahlul Bayt International University Tehran)

Area of interest: Criminal law, Criminology



Ms. Fouzia Khaliq

Designation: Lecturer

Qualification: LLM (International Islamic University (IIUI))

Area of interest: International Trade Law

E-mail: Fouzia.law@must.edu.pk



Mr. Usman Subhani

Designation: Lecturer

Qualification: LLM (Bahria University Islamabad)

Area of interest: Criminal law, Evidence Law

E-mail: usmansubhani@must.edu.pk



Mr. Amir Manzoor

Designation: Lecturer

Qualification: LLM (University of Hertfordshire, UK)

Area of interest: Criminal Law

E-mail: imamirmanzoor@gmail.com



Faculty members of Law



B.A. LLB 5 Years

Department of Law offers admission in a 5-years BA LLB degree program once a year. Department of Law follows the curriculum approved by the Higher Education Commission as per the recommendation of the Curriculum Revision Committee. The Department of Law endeavors to develop credible human traits in law students to become successful and competitive lawyers in their upcoming professional life.

Program Educational Objectives (PEOS)

- **Professional Qualities:** To prepare our students to practice law with professional excellence and commitment to fairness, justice, compassion, and the highest ethical standards.
- **Careers:** To develop in our students the knowledge and competencies that will enable them to discern among and to succeed in a range of careers.
- **Service:** To prepare our students to serve the community, especially the underprivileged, with the dedication to human dignity and the common good.
- **Leadership:** To prepare our students for leadership in the bar, the bench, the academy, and the public and private sectors.
- **Faith:** To encourage our students to consider the role of faith in leading integrated and fulfilling personal and professional lives.
- **Global Awareness and Diversity:** To prepare our students to live, learn, and work in a diverse, multicultural, and globalized environment.
- **Interdisciplinary:** To foster in our students an appreciation of the interactions between the law and other disciplines and professions.

Program Learning Objectives (PLOS)

- Graduates will demonstrate knowledge and understanding of substantive and procedural law.
- Graduates will demonstrate competence in legal analysis, legal reasoning, and legal practice skills.
- Graduates will demonstrate competence in problem-solving skills in the legal context.
- Graduates will demonstrate competence in legal research and written and oral communication in the legal context/regarding legal matters.
- Graduates will demonstrate the exercise of proper professional and ethical responsibilities to clients and the legal system.
- Graduates will demonstrate the knowledge, skills, and professionalism necessary for effective, ethical, and responsible participation as members of the legal profession to serve the public, the profession, and society/the community. These additional skills may include interviewing, counselling, negotiation, trial practice, document drafting, conflict resolution, organization and management of legal work, collaboration, cultural competency, and self-evaluation.
- Graduates will be prepared to continue to develop professional skills and attributes.

Admission criterion:

Entry Requirement: For BA LLB
FA/FSC or Equivalent (or as per university policy for BS or Equivalent Education). Passing of LAT conducted by Higher Education Commission Pakistan (HECP).



Selection Criterion:

The final selection shall be made on the basis of aggregation comprised of academic marks plus entry test.

Campus Management System (CMS):

Department of Law, like all other departments in the University, is linked with the Campus Management System (LMS) of the university, which covers the following major modules:

- Online Admission System
- Student Information System
- Course registration
- Attendance
- Lecture Details
- Marks(Assignment, Quiz, Mid-Term, and Terminal)
- Feedback
- Student Fee Management
- Library Information Management System
- Human Resource Management (HRMS)
- Inventory Management System
- Hostel Management
- Transport Management System

Department of Law has a separate departmental library of its own of having 5102 books containing standard Law books (covering most of the statutes ranging from AJ&K statutes to Pakistani laws & statutes), reference books, and academic books. The Mirpur University of Science and Technology (MUST) has a Central Library as well. In the law section, it contains 599 law specific books for student and faculty use. The Department of Law has acquired books worth around PKR 4.5 million for its library. At present, the

department has an annual budget of approximately five hundred thousand rupees for the year 2023-2024, which is used to acquire the latest and updated books according to the requirement of the department and students.

Recognition of Bar Councils

MUST Law department's B.A. LLB

Program is duly recognized by

- Pakistan Bar Council
- AJK Bar Council

Program Educational Objectives (PEOs):

Professional Qualities:

To prepare our students to practice law with professional excellence and commitment to fairness, justice, compassion, and the highest ethical standards.

Careers:

To develop in our students the knowledge and competencies that will enable them to discern among and to succeed in a range of careers.

Service:

To prepare our students to serve the community, especially the underprivileged, with the dedication to human dignity and the common good.



Leadership:

To prepare our students for leadership in the bar, the bench, the academy, and the public and private sectors.

Faith:

To encourage our students to consider the role of faith in leading integrated and fulfilling personal and professional lives.

Global Awareness and Diversity:

To prepare our students to live, learn, and work in a diverse, multicultural, and globalized environment.

Interdisciplinary:

This degree aims to foster in our students an appreciation of the interactions between the law and other disciplines and professions.

Program Learning Objectives (PLOs):

Following Pakistan Bar Council and Azad Jammu and Kashmir Bar Council Standards, the Department of Law shall maintain a program of legal education that prepares its students, upon graduation, for effective, ethical, and responsible participation as members of the legal profession. The Department of Law consistently seeks to improve its students’ educational experience. The department engages in an ongoing evaluation of its educational program, learning outcomes, and assessment methods to determine the competency of students and to make appropriate changes to improve the curriculum. The department has established the following desired learning outcomes, which identify the knowledge, skills, and values it desires graduates to possess.

LEARNING OUTCOMES

- Graduates will demonstrate knowledge and understanding of substantive and procedural law.

- Graduates will demonstrate competence in legal analysis, legal reasoning, and legal practice skills.
- Graduates will demonstrate competence in problem-solving skills in the legal context.
- Graduates will demonstrate competence in legal research and written and oral communication in the legal context/regarding legal matters.
- Graduates will demonstrate the exercise of proper professional and ethical responsibilities to clients and the legal system.
- Graduates will demonstrate the knowledge, skills, and professionalism necessary for effective, ethical, and responsible participation as members of the legal profession to serve the public, the profession, and society/the community. These additional skills may include interviewing, counseling, negotiation, trial practice, document drafting, conflict resolution, organization and management of legal work, collaboration, cultural competency, and self-evaluation.
- Graduates will be prepared to continue to develop professional skills and attributes.

SCHEME OF STUDIES

B.A.LLB (5 YEAR) w.e.f FALL 2023 ONWARDS

1. Category-wise Split up of Courses
 - 1.1 General Courses: 30 Credit Hours
 - 1.2 Interdisciplinary Courses: 12 Credit Hours
 - 1.3 Major Courses:

- **Foundational Courses** 6 Credit Hours
- **Core Compulsory Courses** 120 Credit Hours
- **Optional / Elective Courses** 06 Credit Hours



- 1.4 Minor Courses: N/A
- 2. Minor Fields / Subjects N/A

Common Compulsory Courses	30 Credit Hours
Title	Credit Hours
Functional English	3
Expository Writing	3
Islamic Studies	2/2
Religious Studies (for non-Muslim Students, instead of Islamic Studies)	
Ideology and Constitution of Pakistan	2
Entrepreneurship	2
Civic and Community Engagement	2
Quantitative Reasoning – I	3
Quantitative Reasoning – II	3
Applications of Information & Communication Technologies	3
Arts & Humanities**	2
Social Sciences**	2
Natural Sciences**	3 (2+1)
Holy Quran: Translation, Tajweed & Tafseer***	S/U

** One course from the approved cluster will be offered

*** One Credit Hour in each semester shall be offered to the students throughout the Degree Program for maintaining attendance records on CMS and the students shall be evaluated on an S/U basis in the last semester as per the University Policy.

Core Compulsory Courses	126 Credit Hours
Title	Credit Hours
Law and Legal Systems	03
Jurisprudence-I	03
Islamic Jurisprudence-I	03
Jurisprudence-II	03
Islamic Jurisprudence-II	03
Constitutional Law-I	03
Law of Contract-I	03
Law of Contract-II	03
Constitutional Law-II	03
Constitutional Law-III	03
Land Laws	03
Criminal Law-I	03
Law of Property-I	03
Equity-I	03
Research Methodology	03
Criminal Law-II	03
Law of Property-II	03
Equity-II	03
Islamic Personal Law	03
Moot Court and Role Playing	03
Constitutional History of Pakistan	03
Criminal Procedure-I	03
Civil Procedure-I	03
Law of Evidence-I	03
International Law-I	03



Law of Interpretation	03
Criminal Procedure-II	03
Civil Procedure-II	03
Law of Evidence-II	03
International Law-II	03
Law of Torts	03
Art of Advocacy	03
Corporate Law-I	03
Administrative Law	03
Law of Human Rights	03
Legal Drafting-I	03
Corporate Law-II	03
Elective-I	03
Elective-II	03
Legal Drafting-II	03
Internship	03
Capstone Project	03

Core Foundational Courses	06 Credit Hours
Title	Credit Hours
Introduction to World Religions	03
Introduction to Logic and Reasoning	03

Elective / Optional Courses	06 Credit Hours	
Course Code	Title	Credit Hours
LAW-5205	Intellectual Property Law	3
LAW-5206	International Economic Law	3

LAW-5207	Environmental Law	3
LAW-5208	Banking Laws	3
LAW-5209	Labor Law	3
LAW-5210	Taxation Laws	3
LAW-5211	Alternate Dispute Resolution	3
LAW-5212	International Trade Law and	3
LAW-5213	International Institutions	3
LAW-5214	Criminology	3
LAW-5215	Minor Acts	3
LAW-5216	Gender and Law	3
LAW-5217	Cyber Crimes	3

Semester Wise Break Up of Courses

SEMESTER ONE		
Code	Title	Credit Hours
ISL-1112	Islamic Studies (or Religious Studies)	02
ENG-1103	Functional English	03
ARA-1101	Language Study Skills (Arabic)	02
ICT-1126	Applications of Information and Communication Technologies	03
EDS-1124	Everyday Science (One Course from the Cluster of Natural Sciences)	03
ICP-1129	Ideology and Constitution of Pakistan	02
LAW-1102	Law and Legal Systems	03
HQT-1101	Holy Quran: Translation, Tajweed	(S/U)



	& Tafseer	
Total Credit Hours		18
SEMESTER-TWO		
Code	Title	Credit Hours
CCE-1230	Civic and Community Engagement	02
LAW-1204	Introduction to World Religions	03
ENG-1207	Expository Writing	03
ETRE-1208	Entrepreneurship	02
LAW-1203	Principles of Political Science (One Course from the Cluster of Social Sciences)	02
SOC-1221	Introduction to Sociology (Interdisciplinary – 1 from the approved cluster)	03
LAW-1202	Constitutional History of Pakistan	03
HQT-1201	Holy Quran: Translation, Tajweed & Tafseer	(S/U)
Total Credit Hours		18
SEMESTER-THREE		
Code	Title	Credit Hours
LAW-2102	Islamic Jurisprudence-I	03
QTR-2127	Quantitative Reasoning-I	03
PSY-2119	Introduction to Psychology (Interdisciplinary-2 from approved cluster)	03
LAW- 2104	Law of Contract-I	03
LAW- 2105	Jurisprudence-I	03

LAW- 2103	Constitutional Law-I	03
HQT-2101	Holy Quran: Translation, Tajweed & Tafseer	(S/U)
Total Credit Hours		18
SEMESTER-FOUR		
Code	Title	Credit Hours
LAW-2204	Islamic Jurisprudence-II	03
QTR-2228	Quantitative Reasoning-II	03
ECO-2206	Fundamentals of Economics (Interdisciplinary-3 from approved cluster)	03
LAW-2205	Introduction to History (South Asia) (Interdisciplinary-4 from approved cluster)	03
LAW-2203	Law of Contract-II	03
LAW-2202	Jurisprudence-II	03
HQT-2201	Holy Quran: Translation, Tajweed & Tafseer	(S/U)
Total Credit Hours		18
SEMESTER-FIVE		
Code	Title	Credit Hours
LAW-3107	Constitutional Law-II	03
LAW-3102	Land Laws	03
LAW-3104	Criminal Law-I	03



LAW-3106	Law of Property-I	03
LAW-3103	Equity-I	03
LAW-3105	Research Methodology	03
HQT-3101	Holy Quran: Translation, Tajweed & Tafseer	(S/U)
Total Credit Hours		18
SEMESTER-SIX		
Code	Title	Credit Hours
LAW-3204	Criminal Law-II	03
LAW-3205	Law of Property-II	03
LAW-3203	Equity-II	03
LAW-3207	Islamic Personal Law	03
LAW-3202	Moot Cases and Role Playing	03
LAW-3206	Introduction to Logic and Reasoning	03
HQT-3201	Holy Quran: Translation, Tajweed & Tafseer	(S/U)
Total Credit Hours		18
SEMESTER-SEVEN		
Code	Title	Credit Hours
LAW-4104	Criminal Procedure-I	03
LAW-4103	Civil Procedure-I	03
LAW-4105	Law of Evidence-I	03
LAW-4106	International Law-I	03

LAW-4107	Law of Interpretation	03
LAW-4102	Constitutional Law-III	03
HQT-4101	Holy Quran: Translation, Tajweed & Tafseer	(S/U)
Total Credit Hours		18
SEMESTER-EIGHT		
Code	Title	Credit Hours
LAW-4204	Criminal Procedure-II	03
LAW-4203	Civil Procedure-II	03
LAW-4205	Law of Evidence-II	03
LAW-4207	International Law-II	03
LAW-4202	Law of Torts	03
LAW-4206	Art of Advocacy and Legal Ethics	03
HQT-4201	Holy Quran: Translation, Tajweed & Tafseer	(S/U)
Total Credit Hours		18
SEMESTER-NINE		
Code	Title	Credit Hours
LAW-5102	Legal Drafting-I	03
LAW-5103	Corporate Law-I	03
LAW-5104	Administrative Law	03
LAW-5105	Law of Human Rights	03
LAW-5106	Internship	03
HQT-5101	Holy Quran: Translation, Tajweed & Tafseer	(S/U)



Total Credit Hours		15
SEMESTER-TEN		
Code	Title	Credit Hours
LAW-5202	Legal Drafting-II	03
LAW-5203	Corporate Law-II	03
	Elective-I	03
	Elective-II	03
LAW-5204	Capstone Project *	03
HQT-5201	Holy Quran: Translation, Tajweed & Tafseer	(S/U)
Total Credit Hours		15

** Capstone Project will be allocated in the 10th Semester and Evaluated in the 10th Semester. Fieldwork / Internship will be offered in the 9th Semester.*



ALUMNI



Our alumni Aamir Ali Rana has made a remarkable name for himself already as he serves in the very prestigious position of judicial law clerk of the High Court. He shares his experiences below and hopes for more talented future lawyers to pursue their goals!

"During my time at MUST Department of Law, I realized I was better suited to litigation and so immediately after my graduation I started working at Huma and Atif Law firm, a litigation oriented firm. I was lucky to have amazing seniors who taught me the very basics of legal drafting and advocacy which fortified my decision to pursue hard core litigation. Currently I am working with Justice of Islamabad High Court, Mr. Tariq Mehmood Jahangiri as the judicial law clerk. I assist Justice sb on the cases before his bench by conducting research, drafting case briefs and deciding novel questions of law."



We are so very proud of our alumni Usama Khalid! May you grow and prosper abundantly, Ameen

"I graduated from MUST Department of Law in 2024, where I pursued my Bachelors of Law degree. The experience at MUST was transformative, which provided me practical learning opportunities such as writing articles and participating in moot courts enhanced my skills in legal writing, debating, and advocacy. I also served as Joint Secretary and later Vice President of the Law Society, organizing events to enrich students' experiences. Moreover, the internships offered by MUST further enriched my legal education. Along with the internships opportunity, MUST conducts Law Clinic every week in which the students were provided with real ongoing cases to research, analyse, and prepare arguments. Currently, I have pursued litigation in my hometown at Palandri, Azad Kashmir. Reflecting on my journey from 2019-2024, MUST's practical approach and my involvement in the provided opportunities have prepared me for a successful legal career in litigation.



DEPARTMENT OF Media & Mass Communication

Vision

The Department of Media and Communication Studies will provide high-quality educational programs of media and communication, to equip students with visual, verbal and written competencies to deal with emerging trends in the digital age.

Degree Programs Offered

BS Media & Communication Studies



Coordinator:

Mr. Muhammad Kashif Najeeb

E-mail: kashifnajeeb@must.edu.pk

Message from Coordinator:

Media has been considered the fourth pillar of a state since the inception of democratic forms of government around the globe. MUST Mirpur established AJK's first Department of Mass Communication (DMC) in 2019. We are committed to nurturing future leaders in media and communication. Our comprehensive program combines theoretical knowledge with hands-on experience, ensuring students gain a deep understanding of media's evolving role in society.

At the heart of our curriculum is a focus on ethical journalism, critical thinking, and effective storytelling. We aim to equip our students with the skills needed to succeed in diverse media sectors, from print and broadcast to digital and social media. With experienced faculty and a dynamic learning environment, we encourage creativity, innovation, and academic excellence.

Our department is dedicated to helping students develop their

professional potential and contribute meaningfully to the ever-changing media landscape. We invite you to join us on this exciting journey and become a part of a community that is passionate about making a positive impact through the media.



Faculty Members



Dr. Muhammad Bilal Bhatti
Designation: Lecturer
Qualification: Ph.D.
E-mail: bilal.bhatti@must.edu.pk

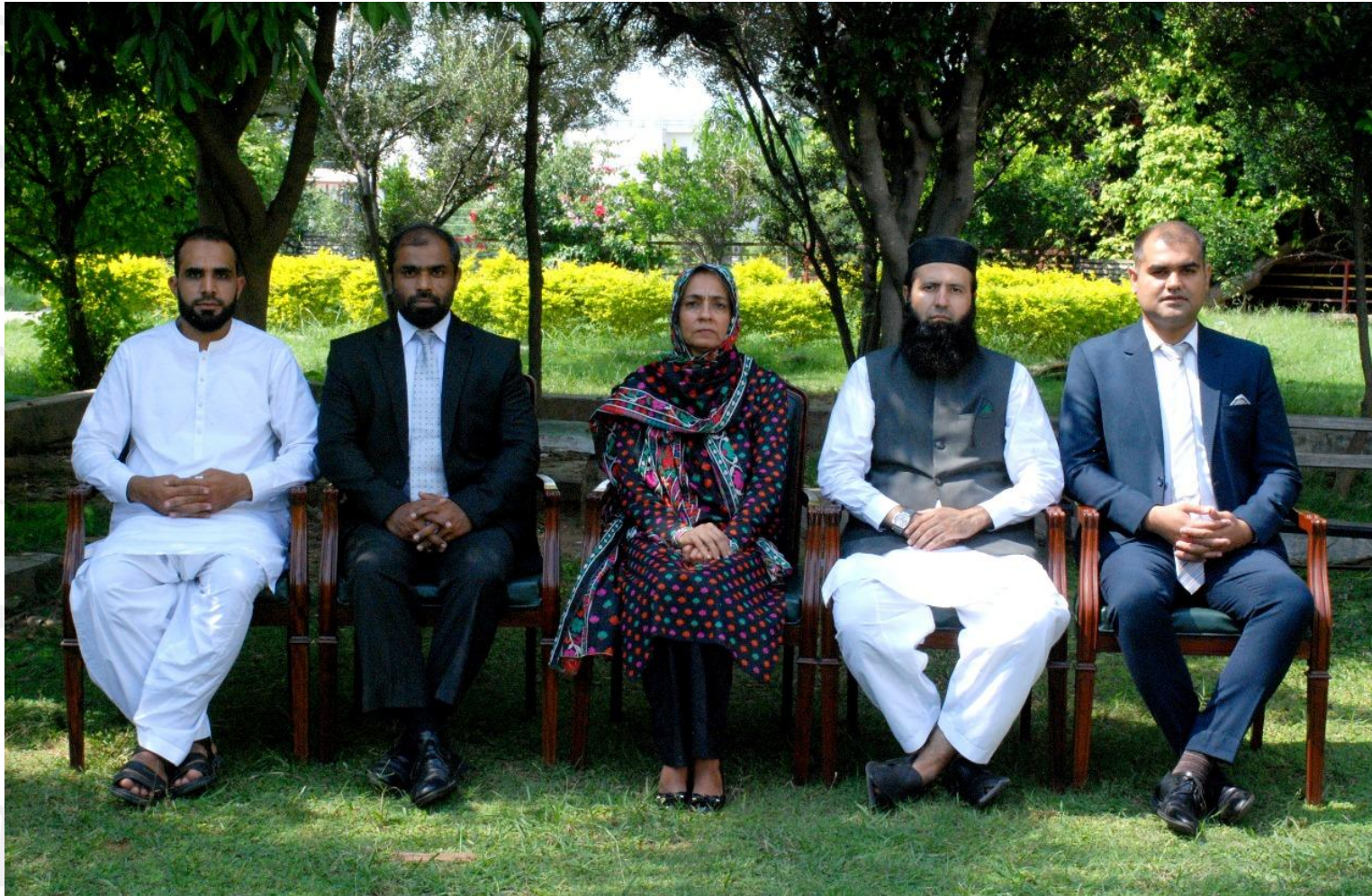


Mr. Waqar Ahmed
Designation: Visiting Lecturer
Qualification: MS
E-mail: waqar.visiting@must.edu.pk



Mr. Umar Ghazanfar Chaudhary
Designation: Lecturer (Visiting)
Qualification: MS
E-mail: umarghazanfarch@gmail.com





Faculty Members of Media and Mass Communication



B.S Media and Communication Studies

Our program is designed not just to educate, but to inspire—equipping our students with the skills, knowledge, and ethical foundation needed to lead in the ever-evolving media landscape. Whether your passion lies in journalism, digital media, public relations, or media research, we are committed to guiding you on a transformative journey that will help you realize your potential and make a meaningful impact on society. Join us and become a part of a community dedicated to excellence in communication and media studies.

Program Mission

In today’s challenging environment, our mission is to provide excellence in teaching and research through the disciplines of Media and communication Studies and aspire to be recognized among leading programs of Media and Communication Studies.

Program Learning Objectives (PLOs)

After completing the BS Media and Communication Studies, the students will be able to:

- Learn trends in the field of media as how to use the latest technology for the dissemination of information;
- Produce the content for print, electronic, and social media;
- Develop a practical understanding of the field through an internship;
- To provide on-hand training in order to equip them to tackle the challenges of the media industry as a media professional.
- To play an active role in the projection of Kashmir Issue.

Admission Criteria

- Students who have passed intermediate examination (F.Sc/ FA/ A levels or equivalent) with minimum of 45% marks in entire academic career.
- Entry Test and interview organized by the university.
- The students who have BA/ BSc. (2 years) degree can also apply and would be admitted in Semester 5 of the BS program as per university rules.
- Both the male and female students are equally encouraged to apply.
- The age limit prescribed by the university calendar would also be applicable for candidates.

Duration

04 years; 8 Semesters; Semester duration: 16-18 weeks

Degree Requirements

This program is designed in accordance with the HEC prescribed model BS degree in Media & Communication Studies which is equivalent to MA/ M.Sc Media & Communication Studies equivalent to sixteen years of education. The program is based on 124 credit hours in a total of eight semesters.

Scholarships Offered:

- | | |
|-------------------------------|-----------------------------|
| 1. Merit Based Scholarship, | 5. Ehsas Scholarships |
| 2. HBL Foundation Scholarship | 6. MUST scholarship |
| 3. Allied Bank Scholarship | 7. Baitul Mall -Scholarship |
| HEC need-base | Other NGOs scholarships. |



Scheme of Study: BS Media and Communication

SEMESTER 1			
Course code	Subject	Credit Hrs.	Subject category
BMC-1101	Introduction to Mass Communication	3	M1
ICP-1129	Ideology and Constitution of Pakistan	2	G9
ICT-1126	Applications of Information and Communication Technologies (ICT)	3(2+1)	G10
ENG-1103	Functional English	3	G4
ISL-1112	Islamic Studies	2	G8
EDS-1124	Everyday Science	3 (2+1)	G2
HQT-1101	Teaching of Holy Quran with Translation, Tajweed and Tafseer	S/U	N/C
Total		16	
SEMESTER 2			
Course code	Subject	Credit Hrs.	Subject Category
BMC-1201	Introduction to Digital and Social Networks	3	M2
BMC-1202	Current Affairs	۳	M3
BMC-1203	Fundamentals of News Writing and Reporting	3	M4

ENG-1207	Expository Writing	3	G5
SOC-1221	Sociology	3	ID1
HQT-1201	Teaching of Holy Quran with Translation, Tajweed and Tafseer	S/U	N/C
Total		15	
SEMESTER 3			
Course code	Subject	Credit Hrs.	Subject category
BMC-2101	Regional Mass Media	3	M5
BMC-2102	Journalistic Urdu	3	M6
URD-2122	Urdu	2	G1
ARA-2101	Arabic	3	ID2
LAW-2131	Introduction to Law	3	ID3
QTR-2127	Quantitative Reasoning-I	3	G6
HQT-2101	Teaching of Holy Quran with Translation, Tajweed and Tafseer	S/U	N/C
Total		17	
SEMESTER 4			
Course code	Subject	Credit Hrs.	Subject category
BMC-2201	Radio News Reporting and Production	3	M7
ETRE-2208	Entrepreneurship	2	G11



BMC-2203	Theories of Mass Communication-I	3	M8
QTR-2228	Quantitative Reasoning-II	3	G7
CCE-2230	Civics and Community Engagement	2	G12
POS-2201	Introduction to Political Science	2	G3
HQT-2201	Teaching of Holy Quran with Translation, Tajweed and Tafseer	S/U	N/C
Total		15	
SEMESTER 5			
Course code	Subject	Credit Hrs.	Subject category
BMC-3101	Introduction to Advertising	3	M9
IR-3110	International Relations	3	ID4
BMC-3103	TV News Reporting and Production	3	M10
BMC-3104	Editorial, Feature and Column Writing	3	M11
BMC-3105	Theories of Mass Communication-II	3	M12
HQT-3101	Teaching of Holy Quran with Translation, Tajweed and Tafseer	S/U	N/C
Total		15	

SEMESTER 6			
Course code	Subject	Credit Hrs.	Subject category
BMC-3201	Media Management	3	M13
BMC-3202	Online Journalism	3	M14
BMC-3203	International Communication	3	M15
BMC-3204	Research Methods-I	3	M16
BMC-3205	Video Editing & Graphics Packaging for News & Current Affairs	3	M17
HQT-3201	Teaching of Holy Quran with Translation, Tajweed and Tafseer	S/U	N/C
Total		15	
SEMESTER 7			
Course code	Subject	Credit Hrs.	Subject category
BMC-4101	Research Methods-II	3	M18
BMC-4102	Magazine Journalism	3	M19
BMC-4103	Contemporary World Media	3	M20
BMC-4204	Media Laws and Ethics	3	M21
BMC-4105	Corporate Communication and Public Relations	3	M22
HQT-4101	Teaching of Holy Quran with Translation, Tajweed and Tafseer	S/U	N/C
Total		15	



SEMESTER 8			
Course code	Subject	Credit Hrs.	Subject category
BMC-4201	Introduction to Conflict Reporting	3	M23
BMC-4202	Sports Journalism	3	M24
BMC-4103	Internship	3	FE
BMC-4204	Development Communication	3	M25
BMC-4205	Capstone Project: <i>Documentary Production (Project Based)/ Thesis(Project Based)/ Public Relations & Advertising Practicum (Project Based)</i>	3	CP
HQT-4201	Teaching of Holy Quran with Translation, Tajweed and Tafseer	S/U	N/C
	Total	15	





DEPARTMENT OF Sociology

Vision

Department of Sociology seeks to provide a high-quality educational program for the undergraduates that helps them develop logical thinking and cultural sensitivity, and the understanding of human behavior in various societies. The key focus is on the interdisciplinary research and contribution to the theory in sociology. We strongly believe in the importance of producing thinkers, leaders, and innovators whose subsequent efforts will bring positive change in our society. We train the youth to bring forth the voice of Kashmir on international academic platforms as to represent the stance of Kashmir.

Degree Programs Offered

BS Sociology





Coordinator:

MS. Tasmia Matloob

E-mail: chairperson.sociology@must.edu.pk

Message from Coordinator

The Department of Sociology seeks to provide a high-quality educational program for undergraduates that helps them develop logical thinking and understanding of human behavior in various societies. The key focus is on interdisciplinary research and contribution to the theory in sociology. We strongly believe in the importance of producing thinkers, leaders, and innovators whose subsequent efforts will bring positive change in our society. We train the youth to bring forth the voices of Kashmir on international academic platforms to represent the stance of Kashmir. Moreover, we recognize the legacy of our history and the way it shaped our culture and values. We are an intellectually curious and generous bunch, committed to creating a stimulating environment that supports rigorous empirical research on critical social issues. The department has established a unique identity due to its focus on contemporary social issues by providing training in statistics, sociological theory, research methodology, and other sub-disciplines. In addition, the Department focuses on rigorous training to prepare students for

research, teaching, civic engagements, and social welfare. Moreover, the graduates are equipped with the skills of developing rapport in unfamiliar situations, collecting and analyzing quantitative and qualitative data, thinking analytically at the macro and micro levels, and communicating effectively, both orally and in writing.



Faculty Members

Dr. Farooq Abdullah

Designation: Lecturer

Qualification: PhD Sociology

Area of interest: Gender And Higher Education

Contact: farooq.abdullah@must.edu.pk

Dr. Nisar Ahmad

Designation: Assistant Professor

Qualification: PhD Development Studies

Area of interest: Rural Development

Contact: gorsi@must.edu.pk

Ms. Sania Shaukat

Designation: Lecturer (visiting)

Qualification: Ms Sociology

Area of interest: Sociology Of Migration

Contact: saniashoukat66@gmail.com

Ms. Tasmia Matloob

Designation: Lecturer

Qualification: Ms sociology

Area of interest: Gender And Management

Contact: tasmia.soc@must.edu.pk

Mrs. Riffat sultana

Designation: lecturer (visiting)

Qualification: MPhil sociology

Area of interest: Medical Sociology

Contact: riffat.mir@gmail.com

Mr. Rustum Ali

Designation: lecturer (visiting)

Qualification: Ms sociology

Area of interest: Higher Education And Women

Contact: rustumalisoc@gmail.com



Faculty Members of Sociology



Sociology Program

The BS Sociology program equips student with conceptual tools, scientific knowledge, and practical skills to gain a deeper understanding of the social world. The juggernauts of modernity are rapidly influencing the social structure evolving new knowledge and information related to institutions, i.e. religion, family, education, workplace, politics, mass media, public health and many others. Thus, sociology provided greater understanding of the complex and simple nature of human societies. Studying sociology provides a better understanding of society as: Reasons for social differences, including differences in social behavior. Reasons for the differentials in group opportunities and outcomes. The relevance of social hierarchies and social power in everyday life. Sociology also provides critical insights and perspectives to the solutions of problems. Moreover, it helps to elevate social and public policies.

Vision

To provide high-quality research oriented academic program to employ professional research skills to influence social policies.

Mission

To grow as a leading research institution to entrust students with scientific knowledge, skills, and creative thinking for their holistic development.

Objectives

The objective of the undergraduate program is to provide a high-quality BS program in Sociology. To this end, we continually seek to strengthen the faculty and the educational program to assure that students are provided sound knowledge on the subject and well

prepared for their careers in the field of Sociology. To produce common grounds for the researchers, students, academicians, policymakers, and statesmen to resolve social problems.

- To strive for excellence in advancing, applying, and imparting knowledge of sociology through comprehensive educational programs and research in collaboration with all the stakeholders of government organizations (GOs) and non-governmental organizations (NGOs);
- To produce outstanding professionals by inculcating fundamental knowledge, problem-solving skills, and life-long learning capabilities to advance their careers.
- To disseminate sound knowledge of subject among students, researchers, scholars, and professionals in coinciding disciplines of social sciences.
- To provide services to the university community, professional societies, local communities, NGOs, state, and the nation.

Admission Criterion:

Students who have passed intermediate examination (F. Sc/ FA/ A levels or equivalent) with minimum of 45% marks in entire academic career.
Entry Test and interview organized by the university.

Selection Criterion:

The formula of merit calculation = (percentage of score obtained in SSC) + (percentage of score obtained in HSSC) + (percentage of entry test marks) + (5 marks for additional course/diploma) + (10 marks for Hafiz-e- Quran)



BS (04 Years) in Sociology

This program is designed in accordance with the HEC's undergraduate educational policy 2023. The program is based on 126 credit hours in a total of eight semesters.

Duration:

Duration = 04 years; 8 Semesters; Semester duration: 15-18 weeks

Highlights of the Degree Program

- Morning program on a regular basis
- Admissions open once in an academic year
- Duration = 04 years; 8 Semesters; Semester duration: 15-18 weeks
- Total Credit Hours = 126
- Score Criteria = CGPA
- Session Fall/ September 2023
- Course Load per Semester 15-18 CH
- Number of courses per semester 4-6
- All students are required to register for full load in the eight semesters.
- Internship: A 3CHrs. internship is scheduled during summer break after fourth year. At the end of the eight-week internship, all students are required to submit a comprehensive report pertaining details of experience and learning and appear in viva voice examination. Viva voice will be conducted after evaluation of reports by departmental committee.

Scope of BS Sociology

The scope of sociology is extensive, covering various dimensions of social life, behavior, and structures. It includes the study of major

social institutions such as family, education, religion, government, and the economy, examining their functions, structures, and impacts on individuals and society.

Career Prospects

Sociologists are employed by research institutes, the criminal justice system, public health and welfare organizations, private businesses, law firms, international agencies, medical centers, educational institutions, advertising firms, survey and polling organizations, police and probation services, local and central government, social and market research, charitable, counselling and voluntary organizations, public relations, journalism and communications, media and marketing, law firms and the criminal justice system, and teaching and education and beyond.

Scheme of Study (BS Sociology)

Year/ Sem	Course Code	Subject	CH	Categories
1/I	CCE-1130	Civic and Community Engagement	2	GC
	SOC-1101	Introduction to Sociology	3	MC
	ICP-1129	Ideology and Constitution of Pakistan	2	GC
	MC-1114	Mass Communication	3	IC
	ITM-1111	Introduction to Management	3	IC
	ENG-1103	Functional English	3	GC



	HQT-0001	Teaching of Holy Quran with Translation, Tajweed and Tafseer	0	GC
Total			16	
1/II	ENG-1207	Expository Writing	3	GC
	ISL-1212	Islamic Studies	2	GC
	STA-1220	Statistics	3	GC
	QTR-1227	Quantitative Reasoning-I	3	GC
	SOC-1202	Sociology of Marriage and Family	3	MC
	SOC-1203	Cultural Anthropology	3	IC
	HQT-0001	Teaching of Holy Quran with Translation, Tajweed and Tafseer	IP	GC
Total			17	
2/III	ARA-2301	Arabic	2	GC
	ICT-2326	Application of Information and Communication Technologies (ICT)	3	GC
	QTR-2328	Quantitative Reasoning-II	3	GC
	SOC-2304	Industrial Sociology	3	MC
	IR-2310	International Relations	3	IC

	SOC-2305	Development of Social Thought	3	MC
	HQT-0001	Teaching of Holy Quran with Translation, Tajweed and Tafseer	IP	
Total			17	
2/IV	ECO-2406	Economics	2	GC
	ETRE-2408	Entrepreneurship	2	GC
	SOC-2406	Social research Methods-I	3	MC
	SOC-2407	Classical Sociological Theories	3	MC
	SOC-2408	Sociology of Social Change	3	MC
	SOC-2409	Sociology of Gender	3	MC
	HQT-0001	Teaching of Holy Quran with Translation, Tajweed and Tafseer	IP	GC
	Total			16
3/V	SOC-3510	Social Research Method-II	3	MC
	SOC-3511	Contemporary Sociological Theory	3	MC
	SOC-3512	Sociology of Development	3	MC



	SOC-3513	Sociology of Peace and Conflict	3	MC
	SOC-3514	Community Development	3	MC
	HQT-0001	Teaching of Holy Quran with Translation, Tajweed and Tafseer	IP	GC
Total			15	
3/VI	SOC-3615	Sociology of Health and Medicine	3	MC
	SOC-3616	Sociology of Law and Human Rights	3	MC
	SOC-3617	Sociology of Demography	3	MC
	SOC-3618	Rural Sociology	3	MC
	SOC-3619	Urban Sociology	3	MC
	HQT-0001	Teaching of Holy Quran with Translation, Tajweed and Tafseer	IP	GC
Total			15	
4/VII	SOC-4720	Criminology	3	MC
	SOC-4721	Sociology of Education	3	MC
	SOC-4722	Sociology of Globalization	3	MC

	SOC-4723	Internship/Field Experience	3	MC
	SOC-47VV	ELECTIVE-I	3	EC
	HQT-0001	Teaching of Holy Quran with Translation, Tajweed and Tafseer	IP	GC
Total			15	
4/VIII	SOC-4824	Project Planning and Management	3	MC
	SOC-4825	Social Impact Assessment	3	MC
	SOC-48VV	ELECTIVE-I	3	EC
	SOC-4826	Sociology of Religion	3	MC
	SOC-4827	Capstone Project	3	MC
	HQT-0001	Teaching of Holy Quran with Translation, Tajweed and Tafseer	IP	GC
			15	
Total Credit Hours			126	

BS Program Layout

General Education Cluster 13 Courses (31 CH)				
Code	Subjects	Course	CH	Sem
ARA-2301	Arabic	1	2	3
STA-1220	Statistics	1	3	2
ECO-2406	Economics	1	2	4
ENG-1103	Functional English	1	3	1



ENG-1207	Expository Writing	1	3	2
QTR-1227	Quantitative Reasoning-I	1	3	2
QTR-2328	Quantitative Reasoning-II	1	3	3
ISL-1212	Islamic Studies	1	2	2
ICP-1129	Ideology and Constitution of Pakistan	1	2	1
ICT-2326	Application of Information and Communication Technologies (ICT)	1	3 (2+1)	3
ETRE-2408	Entrepreneurship	1	2	4
CCE-1130	Civic and Community Engagement	1	2	1
HQT-0001	Teaching of Holy Quran with Translation, Tajweed and Tafseer	1	0	1-8
Total		13	30	

Given criteria of course selection was adopted in-line with UGEP 2023, i.e. Arabic was selected from Arts category, Statistics was selected from Sciences and Economics was opted from social sciences category. Rest of the subjects were adopted as per the UGEP. Course contents of UGEP are followed for the general subjects; however, course codes

were either adopted from existing code schemes or newly assigned to the courses.

Major Courses: 24 Courses (72 CH)

Code	Subjects	Course	CH	Sem
SOC-1101	Introduction to Sociology	1	3	1
SOC-1202	Sociology of Marriage and Family	1	3	2
SOC-2304	Industrial Sociology	1	3	3
SOC-2305	Development of Social Thought	1	3	3
SOC-2406	Social research Methods-I	1	3	4
SOC-2407	Classical Sociological Theories	1	3	4
SOC-2408	Sociology of Social Change	1	3	4
SOC-2409	Sociology of Gender	1	3	4
SOC-3510	Social Research Method-II	1	3	5
SOC-3511	Contemporary Sociological Theory	1	3	5
SOC-3512	Sociology of Development	1	3	5
SOC-3513	Sociology of Peace and Conflict	1	3	5
SOC-3514	Community Development	1	3	5



SOC-3615	Sociology of Health and Medicine	1	3	6
SOC-3616	Sociology of Law and Human Rights	1	3	6
SOC-3617	Sociology of Demography	1	3	6
SOC-3618	Rural Sociology	1	3	6
SOC-3619	Urban Sociology	1	3	6
SOC-4720	Criminology	1	3	7
SOC-4721	Sociology of Education	1	3	7
SOC-4722	Sociology of Globalization	1	3	7
SOC-4824	Project Planning and Management	1	3	8
SOC-4825	Social Impact Assessment	1	3	8
SOC-4826	Sociology of Religion	1	3	8
	Total	24	72	

The above major subjects are assigned new course codes.

Interdisciplinary Courses 4 Courses (12 CH)				
ITM-1111	Introduction to Management	1	3	1
IR-2310	International Relation	1	3	3
MC-1114	Mass Communication	1	3	1
SOC-1203	Cultural Anthropology	1	3	2
	Total	4	12	

Minimum 12 credit hours will be taught in 2 years. At least one course will be included in every semester I to IV. These subjects are taken from and within the University Departments.

Internship/Field Experience 1 Course (3 CH)

SOC-4723	Internship/ Field Experience	1	3	7
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Internship will be offered in 7th semester. However, in-line with UGEP 2023, students are supposed to complete it in summer break between 3rd or 4th year of their degree program.

Capstone Project 1 Project of 3 CH

SOC-4827	Capstone Project	1	3	8
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Capstone project will comprise research report on any contemporary issue that will be carried out under supervision of a teacher. Students will conduct the study and present to the Department for the award of degree. No degree can be awarded without completion of Capstone Project. Moreover, students may take up this project individually or group of not more than two students.



Students' Messages

My undergraduate years at Mirpur university of science and technology (MUST) were a transformative experience. The rigorous academic environment, coupled with vibrant student community, fostered intellectual and personal growth. I'll always cherish the friendships I made and the knowledge I gained and unique cultural experiences I had while studying in such a prestigious institution. One of the most rewarding aspects of my time was the opportunity to conduct my thesis (research) which helped me to become more passionate about the field of sociology.



Aisha

I am Huma Tariq from 6th semester. My decision of admission in BS Sociology at MUST was wise enough to explore the inclusive learning environment here. The department of sociology has well-groomed and highly qualified teachers, and they always support students by engaging them in curricular and co-



Huma Tariq

I am Rima Kiran. My BS journey is promising revealing how to be an observer, an active participant—a follower or leader. University provides inclusive learning environment for the students. I really enjoyed the life at MUST. We have well learned teaching staff equipped with sound knowledge and research. There is great interactive academic environment involving students in academic learning and boost their confidence. Department of Sociology is best place for learning and research. I feel great pleasure to be



Rima Kiran



DEPARTMENT OF English





Coordinator:

Dr. Sehrish Shafi

Tel: +92-5828-92023

E-mail: chairperson.eng@must.edu.pk

Message from Coordinator:

With the belief that education extends far beyond the confines of the classroom and the pages of textbooks, our courses are thoughtfully designed to equip students with essential skills such as critical thinking, persuasive communication, and a deep appreciation for diverse cultures through the study of language and literature. Our mission is to prepare our students not only for success in the workplace but also for meaningful and fulfilling lives. We take pride in our highly qualified and dedicated faculty, who are committed to nurturing the next generation of academic leaders. As we continue to grow and adapt to the evolving needs of our students, we are focused on expanding our programs to include MPhil in English Literature and PhD in English soon.

In recognition of the increasingly interconnected global community, we understand that language serves as a vital bridge between cultures.

To support this, we are excited to announce the launch of the Institute of Languages as an extension of the Department of English. This initiative will provide our students and the wider community with broader opportunities to explore new horizons and open doors to diverse career paths. We are committed to fostering an environment where our students can thrive academically and personally, and we look forward to continuing to support their growth and success.



Faculty Members

Dr. Sehrish Shafi

Designation: Assistant Professor

Qualification: Ph.D. Linguistics

Dr. Asma Iqbal Kayani

Designation: Assistant Professor

Qualification: Ph.D. English

Dr. Toqeer Ahmed

Designation: Assistant Professor

Qualification: Ph.D. English

Ms. Saima Yasmeen

Designation: Lecturer

Qualification: MPhil Linguistics

Ms. Ambreen Rahim

Designation: Lecturer

Qualification: MPhil Linguistics

Ms. Nabeela Khalid

Designation: Lecturer

Qualification: MPhil Linguistics

Ms. Asma Riaz

Designation: Junior Lecturer

Qualification: Masters in English

Ms. Asma Kaleem

Designation: Contract (Lump Sum)

Qualification: MPhil Literature



Faculty members of English



Introduction:

The Department of English at Mirpur University of Science and Technology (MUST) is one of the most vibrant and dynamic departments, located in the heart of the city. With a team of highly qualified faculty members and enthusiastic students, the department is continuously making progress. It offers a range of programs including BS English, BS Bridge, Associate Degree in Arts (ADA) in Linguistics and Literature and Master of Philosophy (MPhil) in English Linguistics. The department is dedicated to fostering a culture of inquiry, creativity, and intellectual growth. Aligned with the university's mission, the department emphasizes the development of language skills and a deep understanding of global literature, blending tradition with innovation. Offering a diverse array of courses in literature, language, and linguistics, the department ensures a comprehensive education that nurtures critical thinking and cultural competence. Our curriculum integrates the study of Pakistani, American, post-colonial, and British literatures. Likewise, in language and linguistics the department offers range of courses which cover general as well as applied linguistics and usage of language in context to build the linguistic and cultural competence among our students to understand how language works and how societies communicate. With a strong commitment to research, we continually evolve our teaching methods to stay at the forefront of academic advancements while providing interdisciplinary support across other departments as well.

Mission Statement:

The programs offered in the department aim to equip the students with a repertoire of skills and a knowledge base which allows them to have a firm grounding in the fields of Linguistics and English Literature. At the same time, the program is geared towards developing and strengthening their critical thinking and effective communication to break new grounds and discover new avenues as well as arm them with skills which further helps them to pursue higher studies where they can critique the current trends in linguistics and literature fields.

Objectives:

1. To familiarize the learners with the traditional and latest developments in the field of Linguistics and Literature and have good standing in theoretical knowledge in these fields.
2. To enable the graduates to apply knowledge gained in the degree program effectively and efficiently.
3. To enable the students to identify the current global trends in linguistics and literature.
4. To encourage critical thinking and effective communication skills to critique the current knowledge in these disciplines.
5. To pursue higher studies in any International University of high repute.
6. To familiarize the students with the basis of general courses of different related disciplines.



Degree Program: BS English

Degree Program	BS English
Eligibility Criteria	45% marks in FA/F.Sc/ICS/I.COM
Duration of degree	4 years (8 semesters)

Semester-Wise Break-up of Courses BS English

YEAR ONE - SEMESTER ONE			
Course Codes	Course Title	Course Type	CHs.
HQT-0001	Holy Quran with Translation, Tajveed and Tafseer	General	1+0(S/U)
ENG-1101	Introduction to English Literature	Subject-Specific	3+0
ENG-1102	Introduction to English Linguistics	Subject-Specific	3+0
ENG-1103	Functional English	General	3+0
ISL-1112	Islamic Studies	General	2+0
ICT-1126	Applications of Information and Computer Technologies (ICT)	General	2+1
ICP-1129	Ideology and Constitution of Pakistan	General	2+0
Total			17
YEAR ONE – SEMESTER TWO			

ENG-1201	Introduction to Phonetics & Phonology	Subject-Specific	3+0
ENG-1202	History of English Literature	Subject-Specific	3+0
ENG-1207	Expository Writing	General	3+0
QIR-1227	Introduction to Quantitative Reasoning	General	3+0
IR-1210	Introduction to International Relations	Interdisciplinary	3+0
HRG-1206	Human Rights and Gender Studies	General	2+0
HQT-0001	Holy Quran with Translation, Tajveed and Tafseer	General	Continue
COE-1208	Comprehensive Oral Examination	Subject Specific	S/U
Total			17
YEAR TWO - SEMESTER THREE			
ENG-2101	Introduction to Morphology & Syntax	Subject-Specific	3+0
ENG-2102	Classics in Poetry	Subject-Specific	3+0
ENG-2103	Critical Reading and Academic Writing	General	3+0



IES-2126	Introduction to Environmental Sciences	General	3+0
LAW-2131	Introduction to Law	Interdisciplinary	3+0
QIR-2128	Intermediate Quantitative Reasoning	General	3+0
HQT-0001	Holy Quran with Translation, Tajveed and Tafseer	General	Continue
Total			18
YEAR TWO - SEMESTER FOUR			
ENG-2201	Introduction to Semantics	Subject-Specific	3+0
ENG-2202	Classics in Drama	Subject-Specific	3+0
PSY-2219	Psychology	Interdisciplinary	3+0
ETRE-2208	Introduction to Entrepreneurship	General	3+0
CCE-2230	Civics and Community Engagement	General	2+0
MC-2214	Introduction to Mass Communication	Interdisciplinary	3+0
HQT-0001	Holy Quran with Translation, Tajveed and Tafseer	General	Continue

COE-2208	Comprehensive Oral Examination	Subject Specific	S/U
Total			17
YEAR THREE - SEMESTER FIVE			
ENG-3101	Introduction to Sociolinguistics	Subject-Specific	3+0
ENG-3102	Introduction to Pragmatics and Discourse Analysis	Subject Specific	3+0
ENG-3103	Introduction to Literary Criticism	Subject Specific	3+0
ENG-3104	Introduction to English Novel	Subject Specific	3+0
ENG-3105	Introduction to Stylistics	Subject Specific	3+0
ENG-3106	Research Methodology	Subject Specific	3+0
HQT-0001	Holy Quran with Translation, Tajveed and Tafseer	General	Continue
Total			18
YEAR THREE - SEMESTER SIX			
ENG-3201	Psycholinguistics	Subject Specific	3+0
ENG-3202	English for Specific Purposes	Subject Specific	3+0
ENG-3203	Modern Poetry	Subject Specific	3+0
ENG-3204	Introduction to Prose	Subject Specific	3+0



ENG-3205	Literary Theory and Practice	Subject Specific	3+0
HQT-0001	Holy Quran with Translation, Tajveed and Tafseer	General	Continue
COE-3208	Comprehensive Oral Examination	Subject Specific	S/U
Total			15
YEAR FOUR - SEMESTER SEVEN			
A maximum of 3 literature courses and 2 language courses are to be offered from the following list and Research Project is optional for those who have 3.0 CGPA.			
Literature			
ENG-4101	Postcolonial Literature	Subject Specific	3+0
ENG-4102	Modern Novel	Subject Specific	3+0
ENG-4103	South Asian Literature in English	Subject Specific	3+0
ENG-4104	African Literature	Subject Specific	3+0
ENG-4105	Introduction to Women's Writing	Subject Specific	3+0
ENG-4106	Modern Drama	Subject Specific	3+0
ENG-4107	Short Fictional Narratives	Subject Specific	3+0
Linguistics			
ENG-4106	Introduction to Translation Studies	Subject Specific	3+0

ENG-4107	Introduction to Bilingualism	Subject Specific	3+0
ENG-4108	Introduction to Second language Acquisition	Subject Specific	3+0
ENG-4109	Introduction to World English	Subject Specific	3+0
ENG-4110	Internship: 3 CH (start during the Summer Break, to be concluded in this semester)	Subject Specific	3+0
ENG-4111	Research Project-I	Subject Specific	3+0
HQT-0001	Holy Quran with Translation, Tajveed and Tafseer	General	Continue
Total			15
YEAR FOUR - SEMESTER EIGHT			
A maximum of 2 literature courses and 2 language courses are to be offered from the following list and Research Project is optional. However, Capstone Project is compulsory.			
Literature			
ENG-4201	Pakistani Literature in English	Subject Specific	3+0
ENG-4202	American Literature	Subject Specific	3+0
ENG-4203	Comparative Literature	Subject Specific	3+0
ENG-4204	Postmodern Fiction	Subject Specific	3+0



ENG-4205	Contemporary British Literature	Subject Specific	3+0
Linguistics			
ENG-4206	Advanced Syntax	Subject Specific	3+0
ENG-4207	Corpus Linguistics	Subject Specific	3+0
ENG-4208	Introduction to Forensic Linguistics	Subject Specific	3+0
ENG-4209	Creative Writing	Subject Specific	3+0
ENG-4210	Language and Gender	Subject Specific	3+0
ENG-4211	Research Project-II	Subject Specific	3+0
ENG-4212	Capstone Project	Subject Specific	3+0
HQT-0001	Holy Quran with Translation, Tajveed and Tafseer	General	S/U
COE-4213	Comprehensive Oral Examination	Subject Specific	S/U
Summar Semester			
ENG----	Internship*	Subject Specific	2+0
Total			15
Total Credit Hours			134

BS English 5th Semester

The department also offers direct admissions in BS English 5th Semester for which the eligibility criteria is 45 % marks in BA/ B.Sc. /B. Com/ADA/ADS. The students are awarded with BS English degree on the completion of 2 years (4 semesters).

Degree Program: Associate Degree in Arts (ADA) in Linguistics and Literature

Degree Program	Associate Degree in Arts (ADA) in Linguistics and Literature
Eligibility Criteria	Intermediate or equivalent qualification with at least 45% marks.
Duration of degree	4-6 Semesters

SEMESTER-WISE BREAK-UP OF COURSES ASSOCIATE DEGREE IN ARTS (ADA) IN LINGUISTICS AND LITERATURE

YEAR ONE - SEMESTER ONE			
Course Codes	Course Title	Course Type	CHs.
ENG-1101	Introduction to English Literature	Subject-Specific	3+0
ENG-1102	Introduction to English Linguistics	Subject-Specific	3+0
ENG-1103	Functional English	General	3+0
ICT-1104	Applications of Information and Computer Technologies (ICT)	General	3+0
ISL-1105	Islamic Studies	General	2+0
ICP-1106	Ideology and Constitution of Pakistan	General	2+0
Total			16
YEAR ONE - SEMESTER TWO			
ENG-1201	Introduction to Phonetics & Phonology	Subject-Specific	3+0



ENG-1202	History of English Literature	Subject-Specific	3+0
ENG-1203	Expository Writing	General	3+0
IQR-1204	Introduction to Quantitative Reasoning	General	3+0
IES-1205	Introduction to Environmental Science	General	3+0
ARA-1206	Arabic	Interdisciplinary	3+0
Total			18
YEAR TWO - SEMESTER THREE			
ENG-2301	Introduction to Morphology & Syntax	Subject-Specific	3+0
ENG-2302	Classics in Poetry	Subject-Specific	3+0
ENG-2303	Short Fictional Narratives	General	3+0
IIR-2304	Introduction to International Relations	Interdisciplinary	3+0
IQR-2306	Intermediate Quantitative Reasoning	General	3+0
Total			15
YEAR TWO - SEMESTER FOUR			
ENG-2401	Introduction to Semantics	Subject-Specific	3+0
ENG-2402	Classics in Drama	Subject-Specific	3+0
PSY-2403	Psychology	General	3+0
ENT-2404	Introduction to Entrepreneurship	General	3+0
CCE-2405	Civics and Community Engagement	General	2+0
ENG-2406	Viva Voice		S/U
Total			14

Degree Program: MPhil English (Linguistics)

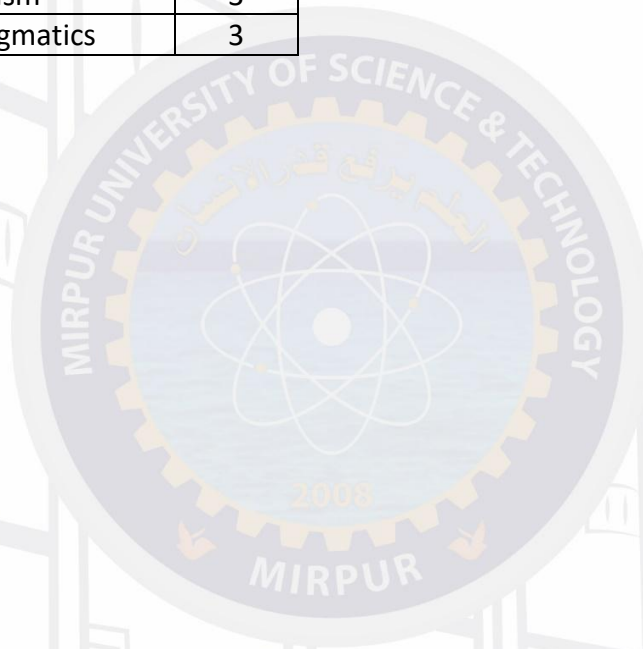
Degree Program	MPhil English (Linguistics)
Eligibility Criteria	<ul style="list-style-type: none"> • Sixteen years of education in English • A minimum of 3.0 CGPA for semester system students and minimum 50% for annual system students in MA examination. • Qualifying the written test conducted by the university (The successful candidates, with minimum 60 % marks, will be shortlisted for the interview, and their comprehensive score of the written test as well as the interview will make them eligible for admission to the respective program). • A linguistic background in the form of MA/BS English will be preferred. • The final selection will take place strictly based on merit.
Duration of degree	4-8 semesters

Semester-Wise Break-up of Courses M.Phil English (Linguistics)

#	Course Code	Course Title	Credit Hours
Core Courses			
1.	LING-770	Research Methods in Linguistics	3



2.	LING-771	Linguistic Theories	3
Elective Courses			
3.	LING-772	Sociolinguistics	3
4.	LING-773	Advanced Syntax	3
5.	LING-774	Advanced Phonology	3
6.	LING-775	Multilingualism	3
7.	LING-776	Intercultural Pragmatics	3





FACULTY OF MUST BUSINESS SCHOOL

Degree Programs Offered

BS Business Administration

BS Banking & Finance

BS Commerce

Masters Business Administration (MBA 3.5 Year)

Masters Business Administration (MBA 1.5 Year) (Evening)

Masters Business Administration (MBA (Executive) 2 Year (Evening)

MS Management Sciences (Evening)



Director/ Incharge Dean

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E-mail: director.mbs@must.edu.pk

Message from Director/ Incharge Dean

Welcome to the Faculty of MUST Business School. As the Director, I take great pride in the long-standing tradition of our School, which has been dedicated to delivering practical, hands-on business education since its establishment. Our School's business programs are designed to equip our students with the necessary leadership skills, ethical grounding, and intellectual prowess to tackle the challenges of our rapidly evolving society. Situated in Mirpur Azad Jammu and Kashmir, a thriving center for both economics and culture, the Mirpur University of Science and Technology (MUST) offers unparalleled opportunities for our students to engage with various industries and communities.

Here at the Faculty of MUST Business School, our unwavering commitment is to provide exceptional academic excellence in the fields of business administration, banking & finance, and commerce.

Whether you choose to explore our school online or prefer a visit to our campus, I extend a warm invitation to all individuals seeking to expand their knowledge and enhance their professional

journeys. Join us as we embark on a remarkable educational experience together.

Introduction to Faculty of MUST Business School

MUST Business School (MBS), inaugurated by Dr. Ishrat Husain, former Governor of the State Bank of Pakistan, while serving as Dean and Director at the Institute of Business Administration Karachi (IBA), stands as a premier institution in this region. For students, MBS offers an unparalleled blend of academic excellence, cutting-edge research, and real-world market exposure.

At MBS, the Entrepreneurial Incubation Center (EIC) is a significant highlight, empowering students to transform their innovative ideas into thriving businesses. This initiative nurtures an entrepreneurial spirit, encouraging students to become job creators rather than job seekers. The Business Research Center (BRC) at MBS is another vital resource, addressing the research needs of local businesses, thereby enhancing students' practical knowledge and contributing to the success and sustainability of enterprises in the community.



The teaching methods at MBS are designed to provide a comprehensive learning experience, integrating classroom sessions, group work, case studies, term papers, extensive use of the library, and participation in top-quality seminars, workshops, and conferences. This approach ensures that students receive a well-rounded education, equipping them with the skills and knowledge required to excel in the business world.

MBS encompasses three key departments: Business Administration, Banking and Finance, and Commerce. Each department offers specialized programs aimed at developing expertise in their respective fields, preparing students for successful careers in the dynamic world of business and finance.

Vision

To become a leading business school in the region by producing quality graduates and entrepreneurs.

Mission

Faculty of MUST Business School (FMBS) will produce quality graduates and entrepreneurs equipped with skills. We aim to create a strong bond with regional educational institutions and local industry by promoting research and entrepreneurial activities.

Objectives

- To produce excellent research that helps both society and businesses.
- To be an outstanding learning and teaching institution that produces employable students.
- To build sustainable and mutually beneficial relationships with the corporate world.

- To develop national and international partnerships with likeminded institutions.
- To inculcate a culture of continuous improvement based on international standards of excellence for business schools.
- To promote innovation and teamwork amongst our students and faculty members.



**DEPARTMENT OF
Business Administration**





Faculty members of MUST Business School



Faculty Members of Business Administration

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Department of Business Administration

Vision

To be a premier leading Department of Business Administration in region for the progress and advancement of Business Administration teachings and research as a medium for the business activities and economic and financial growth, wealth and prosperity.

Mission

To provides cutting edge business education, research, and cultivating the principles of social responsibilities among graduates to lead business community and self-employment through entrepreneurship.

Bachelor of Business Administration

At BBA level special importance is attached to project work where students go to the field to analyze real life problems and produce meaningful solutions. This gives them the essential exposure to the manner in which the business world operates in Pakistan. Again, a large number of professional and technical seminars are conducted where senior managers from the industry are invited to share their experiences with our students.

In order to produce graduates with a well-balanced personality, general awareness of social issues and basic reasoning capabilities, students are also required to take, in addition to core and elective courses of the discipline.

Admission Requirements

- Higher Secondary School Certificate or Equivalent securing at least 45% marks in aggregate
- Entry Test

Degree Requirements	
Each candidate for the BBA degree is required to complete 126 Semester Credit Hours (SCH) as per the following detail:	
Area	SCH
(a) Core Courses	102
(b) Elective Course	18
(c) Business Project*	06
Total	126
*Project	
It is mandatory for every student to complete a Business Project in the 8th semester.	
Duration: This is a four-year degree program comprising of 8 semesters with a minimum of 126 semester credit hours (SCH). There is a Fall and a Spring semester in each year.	

Scheme of Study for Bachelor of Business Administration Fall 2024

First Semester			
Code	Course Titles	Cr.Hrs	Category
BBA-1101	Financial Accounting-I	3(3+0)	Maj
BBA-1102	Introduction to Business	3(3+0)	Maj
GEN-1103	Functional English	3(3+0)	General (Eng)
GEN-1104	Islamic Studies	2(2+0)	General (Religious)
GEN-1105	Introduction to Sociology	2(2+0)	General (social science)



MAT-1115	Business Mathematics	3(3+0)	Allied
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	IP	Compulsory
Total Credit Hours		16	

Second Semester			
BBA-1201	Financial Accounting-II	3(3+0)	Maj
BBA-1202	Principles of Management	3(3+0)	Maj
GEN-1203	Application of Information and Communication Technologies	3(2+1)	General (App of information and communication)
GEN-1204	Introduction to Expository Writing	3(3+0)	General (Quantitative Reasoning)
BBA-1205	Business Research Methods	3(3+0)	Maj
PSY-1119	Introduction to Psychology	3(3+0)	Allied
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	IP	Compulsory
Total Credit Hours		18	

Third Semester			
ARA-2301	Arabic	3(3+0)	Compulsory
GEN-2302	Introduction to Entrepreneurship	2(2+0)	General (Entrepreneurship)
GEN-2303	Exploring Quantitative Skills	3(3+0)	General (Quantitative Reasoning)
GEN-2304	Introduction to Philosophy	2(2+0)	General (A&H)
BBA-2305	Principles of Marketing	3(3+0)	Maj
ECO-2306	Microeconomics	3(3+0)	Allied
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	IP	Compulsory
Total Credit Hours		16	

Fourth Semester			
GEN-2401	The Science of Global Challenges	3(2+1)	General (Natural Science)
GEN-2402	Civic and Community Engagement	2(2+0)	General (Civic and Community Engagement)
GEN-2403	Pakistan Studies	2(2+0)	General (Ideology of Pak)
GEN-2404	Tools for Quantitative Reasoning	3(3+0)	General (Quantitative Reasoning)



BBA-2405	Business Finance	3(3+0)	Maj
BBA-2406	Human Resource Management	3(3+0)	Maj
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	IP	Compulsory
Total Credit Hours		16	
Fifth Semester			
BBA-3501	Cost Accounting	3(3+0)	Maj
BBA-3502	Organizational Behavior	3(3+0)	Maj
BBA-3503	Marketing Management	3(3+0)	Maj
BBA-3504	Internship	3(0+3)	Field Experience
BBA-3505	Financial Management	3(3+0)	Maj
ECO-3506	Macro Economics	3(3+0)	Allied
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	IP	Compulsory
Total Credit Hours		18	
Sixth Semester			
BBA-3601	Financial Institutions and Markets	3(3+0)	Maj

BBA-3602	Consumer Behavior	3(3+0)	Maj
BBA-3603	Business Law	3(3+0)	Maj
.....	Elective-I	3(3+0)	Specialization
.....	Elective-II	3(3+0)	Specialization
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	IP	Compulsory
Total Credit Hours		15	
Seventh Semester			
BBA-4701	Strategic Management	3(3+0)	Maj
BBA-4702	Operations Management	3(3+0)	Maj
BBA-4703	Managerial Accounting	3(3+0)	Maj
.....	Elective-III	3(3+0)	Elective
.....	Elective-IV	3(3+0)	Elective
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	IP	Compulsory
Total Credit Hours		15	
Eighth Semester			
BBA-4801	Total Quality Management	3(3+0)	Maj
BBA-4802	Leadership	3(3+0)	Maj



BBA-4803	Capstone Project	3(0+3)	FYP
.....	Elective-V	3(3+0)	Elective
.....	Elective-VI	3(3+0)	Elective
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	S/U	Compulsory
Total Credit Hours		15	
Grand Total Credit Hours		129	

Elective Courses:

FINANCE		
Course Code	Title	Cr.Hrs
FIN-3604	Advanced Financial Accounting	3
FIN-3605	Auditing Theory & Practice	3
FIN-3606	Investment Banking and Financial Services	3
FIN-3607	Analysis of Financial Statements	3
FIN-4705	International Financial Management	3
FIN-4706	Behavioral Finance	3
FIN-4707	Corporate Finance	3
FIN-4708	Investment Analysis and Portfolio Management	3
FIN-4804	Financial Markets	3
FIN-4805	Risk Management	3
FIN-4806	Islamic Banking	3

MARKETING		
Course Code	Title	Cr.Hrs
MKT-3604	Advertising	3
MKT-3605	Strategic Marketing	3
MKT-3606	Export Marketing	3
MKT-4705	Social Marketing	3
MKT-4706	International Marketing	3
MKT-4707	Sales Management	3
MKT-4804	Brand Management	3
MKT-4805	Digital Marketing	3
MKT-4806	Services Marketing	3
MKT-4807	New Product Development	3

HUMAN RESOURCE MANAGEMENT		
Course Code	Title	Cr.Hrs
HRM-3604	Organizational Development	3
HRM-3605	Conflict Management	3
HRM-3606	Change and Innovation Management	3
HRM-3607	Training & Development	3
HRM-4706	Recruitment and Selection	3
HRM-4707	Compensation and Benefits Management	3
HRM-4708	Industrial Relations Management	3
HRM-4804	Human Resource Development	3
HRM-4805	Occupational Health and Safety	3
HRM-4806	International Business	3
HRM-4807	Strategic Human Resource Management	3



Master’s in business administration (MBA 1.5 Year)

The MBA 1.5 Year degree program is designed to serve the needs of those who already hold an honors' degree in business or commerce and now looking for a master’s to be at par with MBA 3.5 years. The program will meet the increasing demand for advanced business education which will not only combine textbook learning with case study methodology but will expose students to an Environment which will facilitate development of their conceptual skills as well as personal growth. By the end of program, the students will feel comfortable taking up leadership and decision-making roles to can work across disciplines and cultures to manage change, develop creative innovative.

Admission Criterion Applicants should have a B.Com/ BBA (Hons.) Or equivalent degree with 2.5/4.0 CGPA.

SCHEME OF STUDIES

Code	Title	Cr.Hrs
1	Core courses	18
2	Specialization	12
3	Research Project	06
TOTAL		36

Semester-I		
Code	Title	Cr. Hrs.
1	Core Course-I	03
2	Core Course-II	03
3	Core Course-III	03

4	Elective-I	03
5	Elective-II	03
Total		15
Semester-II		
Code	Title	Cr.Hrs
1	Core Course-IV	03
2	Core Course-V	03
3	Core Course-VI	03
4	Elective-III	03
5	Elective-IV	03
Total		15

CORE COURSES		
Code	Title	Cr. Hrs.
MBA 7101	Advance Research Methods	03
MBA 7102	Project Management	03
MBA 7103	Quantitative Techniques in Business	03
MBA 7104	Economic Analysis	03
MBA 7105	Knowledge Management	03

Code	Title	Cr. Hrs.
MBA 7201	Advances in Entrepreneurship	03
MBA 7202	Corporate Governance	03
MBA 7203	Organizational Development	03
MBA 7204	SME Management	03



Human Resource Management		
Code	Title	Cr. Hrs.
MBA 7106	Human Resource Development	03
MBA 7107	Change Management	03
MBA 7108	Negotiation & Conflict Management	03
MBA 7109	Strategic Human Resource Management	03
MBA 7205	Compensation & Reward Management	03
MBA 7206	Performance Management	03
MBA 7207	Industrial Psychology	03
MBA 7288	Seminars in HRM	03
MBA 7209	Leadership	03
MBA 7210	Recruitment and Selection	03

Finance		
Code	Title	Cr. Hrs.
MBA 7110	Financial Decision Making	03
MBA 7111	Financial Markets	03
MBA 7112	Commercial & Investment Banking	03
MBA 7113	Seminar in Finance	03
MBA 7114	International Financial Management	03
MBA 7211	Security Analysis & Portfolio Management	03
MBA 7212	Treasury & Fund Management	03

Marketing		
Code	Title	C. Hrs.
MBA 7115	Advertising & Promotion	03

MBA 7116	Strategic Marketing Planning	03
MBA 7117	Marketing Research	03
MBA 7118	Sales Management	03
MBA 7119	Services Marketing	03
MBA 7216	Seminars in Marketing	03
MBA 7217	Product and Brand Management	03
MBA 7218	Consumers Behavior	03
MBA 7219	Marketing Channels	03
MBA 7301	Research Project	06

Master’s in Business Administration (MBA 2 Year (Executive))

This degree is specifically aimed to cater the needs of those professionals who are rich in industry experience working at different tiers of management but lack on the academic side. The curriculum has been designed to develop in-depth understanding of all business functions. The curriculum is based on technical, data-driven, quantitative skills to make objective decisions with the interpersonal and communication skills necessary to work effectively with people at all levels and from all cultures. The Program will meet the increasing demand for advanced business education which will not only combine textbook learning with case study methodology but will expose students to an environment which will facilitate development of their conceptual skills as well as personal growth.

Eligibility

Applicants should have a 14-year education with 4 years industry experience or a 16-year education with 2 years industry experience. Candidates having passed their degrees in annual system must have at least 45 percent marks and in semester system 2.5/4.0 CGPA.

Duration

It is a 2-year degree program with 4 semesters and consisting of 66 credit hours: 48 credit hours for core courses; 12 credit hours for specialization courses and a 3-credit hour Research project.

Scheme of Study

Duration:	4 Semesters
Course Work:	60 Credits
Oral/Comprehensive Examination	S/U Basis
Internship/Research Project:	3 Credit Hours
Total:	63 Credits

Semester-I		
Code	Course Title	Cr. Hrs.
EMB-5101	Financial Accounting	3
EMB-5102	Principles of Marketing	3
EMB-5103	Principles of Management	3
EMB-5104	Business Mathematics & Statistics	3
EMB-5105	Business Communication	3
Total Credit Hours		15
Semester-II		
Code	Course Title	Cr. Hrs.
EMB-5201	Cost Accounting	3
EMB-5202	Human Resource Management	3
EMB-5203	Quantitative Techniques in Business	3
EMB-5204	Business Finance	3
EMB-5205	Managerial Economics	3
Total Credit Hours		15
Semester-III		
Code	Course Title	Cr. Hrs.
EMB-6301	Marketing Management	3
EMB-6302	Financial Management	3



EMB-6303	Business Research Methods	3
EMB-	Elective I	3
EMB-	Elective II	3
	Total Credit Hours	15
Semester-IV		
Code	Course Title	Cr. Hrs.
EMB-6401	Strategic Management	3
EMB-6402	Project Management	3
EMB-6403	Organizational Behaviour	3
EMB-	Elective III	3
EMB-	Elective IV	3
EMB-6410	Business Project	3
Total Credit Hours		18

SPECIALIZATION COURSES

HUMAN RESOURCE MANAGEMENT		
Code	Course Title	Cr. Hrs.
EMB-6304	Strategic Human Resource Management	03
EMB-6305	Human Resource Development	03
EMB-6306	Negotiation & Conflict	03
EMB-6307	Change Management	03
EMB-6308	Compensation & Reward Management	03
EMB-6404	Performance Management	03
EMB-6405	Industrial Psychology	03
EMB-6406	Seminars in HRM	03
EMB-6407	Leadership	03
EMB-6408	Recruitment and Selection	03

MARKETING		
Code	Course Title	Cr. Hrs.
EMB-6313	Marketing Research	03
EMB-6314	Consumers Behavior	03
EMB-6315	Advertising & Promotion	03
EMB-6416	Sales Management	03
EMB-6417	Services Marketing	03
EMB-6418	Seminars in Marketing	03

FINANCE		
Code	Course Title	Cr. Hrs.
EMB-6309	Security Analysis & Portfolio Management	03
EMB-6310	Commercial & Investment Banking	03
EMB-6311	Financial Markets	03
EMB-6312	Behavioral Finance	03
EMB-6411	International Financial Management	03
EMB-6412	Financial Decision Making	03
EMB-6413	Analysis of Financial Statements	03
EMB-6414	Corporate Finance	03
EMB-6415	Financial Risk Management	03



MS in Management Sciences

The MS in Management Sciences is a research-based degree program.

It is designed to find solutions of the problems in the economy. Mainly factors contributing to the high quality of research and training of students: The basics of business such as management, marketing, commerce, IT and computer sciences; and focus on the rigorous analysis of business problems

Eligibility

A minimum of 16 year of education with MBA/M.Com/MPA/BBA (4 year)/B.Com (4 year)/BS Management (4 year) or equivalent with second division or 2.50 CGPA on the scale of 4.00 from any institution recognized by HEC Pakistan.

SCHEME OF STUDY

Sr. No	Title	Cr. Hrs.
1	Core courses	12
2	Specialization	12
3	Conference/ Seminar	01
4	Thesis	06
Total		31

SPECIALIZATION COURSES

MANAGEMENT

Code	Course Title	Cr. Hrs.
MS-7103	Management of NGOs	3
MS-7104	Seminar on Strategic Knowledge Management	3
MS-7105	Current Issues in Management	3

MS-7106	Advances in Supply Chain Management	3
MS-7203	Topic in Quality Management	3
MS-7204	Project Management	3
MS-7205	Operations Management	3

HUMAN RESOURCE MANAGEMENT

Code	Course Title	C. Hrs.
MS-7107	Career Management & Planning	3
MS-7108	Human Resource Development	3
MS-7109	Human Resource Information System	3
MS-7206	HRM in Public and Private Sector	3
MS-7207	Organization Development	3
MS-7208	Industrial Relations and Labor Law in Pakistan	3

MARKETING

Code	Course Title	C. Hrs.
MS-7110	Customer Relationship Management	3
MS-7111	Advance Topics in Consumer Behavior	3
MS-7112	Product Management	3
MS-7113	Strategic Marketing	3
MS-7114	Brand Management	3
MS-7209	Current issues in Advertising Management	3
MS-7210	Current Issues in Marketing	3
MS-7211	Sales management	3
MS-7212	Services marketing	3



FINANCE		
Code	Course Title	C. Hrs.
MS-7115	Islamic Finance	3
MS-7116	Banking Management	3
MS-7117	Insurance Management	3
MS-7118	Behavioral Finance	3
MS-7119	Case Studies in Corporate Finance	3
MS-7213	Financial Management of MNCs	3
MS-7214	Issues in Financial Reporting	3
MS-7215	Financial Modeling	3
MS-7216	Advance portfolio management	3

ACCOUNTING		
Code	Course Title	C. Hrs.
MS-7120	Advanced Accounting Theory & Problems	3
MS-7121	Governmental Accounting	3
MS-7122	Advanced Auditing techniques	3
MS-7217	Cost Accounting for Selected Industries	3
MS-7218	Management Accounting	3
MS-7219	Accounting for Venture Capital & Mutual Funds	3

ENTREPRENEURSHIP		
Code	Course Title	C. Hrs.
MS-7123	Social Entrepreneurship	3

MS-7124	Entrepreneurial Finance 03	3
MS-7125	Inventions and Patents	3
MS-7126	Entrepreneurial Marketing	3
MS-7220	International Entrepreneurship	3
MS-7221	Technology Commercialization	3
MS-7222	Advances in business strategy	3
MS-7223	Techno Entrepreneurship	3



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Department of Banking and Finance

Vision

“To be a premier leading Department of Banking and Finance in Pakistan for the development and promotion of banking and finance teachings as a medium for economic and financial growth, wealth and prosperity.”

Mission

“To arouse, inspire and deliver cutting edge education, learning, research, capacity building and counseling services in the locale of Banking and Finance to uphold and prosper.”

BS in Banking and Finance

The department of banking and finance is an educational research oriented non-profit organization with the objective of promoting intellectual, logical and scientific thoughts and discussions on institutions of banking and finance. The institute is dedicated to produce well-trained, highly competent personnel and executives with the required talent in the banking and finance industry.

Objectives

The objective of Department of Banking and finance is the injunctions of the financial and banking culture. It is aimed to create a platform for new generation of academic students, researchers, scholars, business managers, financiers, bankers and economists who can effectively and productively deals with the present business challenges and difficulties in the exhibits of principles of banking and finance teachings by conveying knowledge and education using different modes of learning methods.

The ultimate objective is to

- Organizing teachings of banking and finance at all levels
- Research Culture and Analytical Thinking - Conducting advance studies & research in the relevant areas
- Develop Industry Partnership- Promoting cooperation with other leading educational and research institutions in the Islamic banking and finance and allied disciplines
- Providing training & consultancy services to public and private organizations
- Develop, Conduct and Promote Training Programs
- Endorse Qualified Human Resources in areas demanded by Industry
- Establish Platform for Trainers and Advisers
- Provide Business advisory in context of Spiritual Heritage of Islam

Scheme of Study for Bachelor of Science in Banking and Finance		
Semester-I		
Code	Course Title	Cr. Hrs.
BBF-1101	Financial Accounting-I	3(3-0)
GEN-1102	Application Of Information and Communication Technologies	3(2-1)
BBF-1103	Introduction to Business	3(3-0)
GEN-1104	Functional English	3(3-0)
GEN-1105	Islamic Studies	2(2-0)
GEN-1106	Civic And Community Engagement	2(2-0)
HQT-1101	Holy Quran with Translation. Tajveed and Tafseer	IP



Semester –II		
Code	Course Title	Cr. Hrs.
BBF-1201	Financial Accounting-II	3(3-0)
BBF-1202	Introduction to Banking	3(3-0)
BBF-1203	Business Research Methods	3(3-0)
GEN-1204	Introduction to Expository Writing	3(3-0)
GEN-1205	Pakistan Studies	2(2-0)
MAT-1215	Business Mathematics	3(3-0)
HQT-1101	Holy Quran with Translation. Tajveed and Tafseer	IP
Semester –III		
Code	Course Title	Cr. Hrs.
BBF-2301	Cost Accounting	3(3-0)
BBF-2302	Introduction to Management	3(3-0)
GEN-2303	The Science of Global Challenges	3(2-1)
GEN-2304	Introduction to Sociology	2(2-0)
GEN-2305	Exploring to Quantitative Skills	3(3-0)
ECO-2306	Microeconomics	3(3-0)
HQT-1101	Holy Quran with Translation. Tajveed and Tafseer	IP
Semester-IV		
Code	Course Title	Cr. Hrs.
BBF-2401	Introduction to Finance	3(3-0)
GEN-2402	Introduction to Philosophy	2(2-0)
GEN-2403	Tools for Quantitative Reasoning	3(3-0)
BBF-2404	Introduction to Marketing	3(3-0)
ARA-2405	Arabic	3(3-0)

GEN-2406	Introduction to Entrepreneurship	2(2-0)
HQT-1101	Holy Quran with Translation. Tajveed and Tafseer	IP
Semester-V		
Code	Course Title	Cr. Hrs.
BBF-3501	Human Resource Management	3(3-0)
BBF-3502	Bank Auditing	3(3-0)
BBF-3503	Risk Management	3(3-0)
BBF-3504	Financial Management	3(3-0)
ECO-3506	Macroeconomics	3(3-0)
HQT-1101	Holy Quran with Translation. Tajveed and Tafseer	IP
Semester-VI		
Code	Course Title	Cr. Hrs.
BBF-3601	Banking Law and Practice	3(3-0)
BBF-3602	Organizational Behaviour	3(3-0)
BBF-3603	Analysis of Financial statement	3(3-0)
BBF-3604	Islamic Banking	3(3-0)
BBF-3605	Corporate Finance	3(3-0)
PSY-3606	Introduction to Psychology	3(3-0)
HQT-1101	Holy Quran with Translation. Tajveed and Tafseer	IP
Semester-VII		
Code	Course Title	Cr. Hrs.
BBF-4701	Strategic Management	3(3-0)
BBF-4702	Portfolio Management	3(3-0)
BBF-4703	Consumer Banking	3(3-0)
BBF-4704	Business Taxation Laws	3(3-0)



BBF-4705	International Trade & Foreign Exchange Management	3(3-0)
BBF-4706	Internship	3(0-3)
HQT-1101	Holy Quran with Translation. Tajveed and Tafseer	IP
Semester-VIII		
Code	Course Title	Cr. Hrs.
BBF-4801	Credit Analysis & Investment Banking	3(3-0)
BBF-4802	Marketing of Banking Products & Financial Services	3(3-0)
BBF-4803	Organizational Development & Change Management	3(3-0)
BBF-4804	Performance Management	3(3-0)
BBF-4805	Capstone Project	3(3-0)
HQT-1101	Holy Quran with Translation. Tajveed and Tafseer	IP
Total Credit Hours		132

**DEPARTMENT OF
Commerce**





Faculty Members of Commerce



Faculty Members

Dr. Zaffar Iqbal

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Area of interest: Commerce

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Department of Commerce

Vision

Envisions to provide excellent and value-based commerce education. To train the students with the required levels of competence for employment in both domestic and global market. To give a global perspective through value-based education for social transformation.

Mission

The Department of Commerce promotes job creation, economic growth, sustainable development, and improved living standards for all stakeholders by working in partnership with businesses, universities, communities, and workers.

Programs offered

1. BS in Commerce
2. BS (Accounting & Finance)
3. Master of Commerce (M. Com 1.5 Years)

BS Commerce:

The commerce qualification is in great demand across the corporate world due to emergence of corporate governance and issues related to better custodians of public wealth.

Four-year BS Commerce program mainly focuses upon the vital areas of study like that of accounting, auditing, finance, taxation, computer applications, banking, e-commerce, economics, law, statistics, management and marketing.

Sharp minds are catered in our department aiming at setting, imparting latest trends, and setting new traditions into the field of commerce, business and entrepreneurship. Vim and vigor of the

faculty is hereby reflected by the inclination of perfections in all the relevant fields of study by the students. Students are guided by offering them variety of courses developed in the line of knowledge enrich outline to prepare worthy managers and administrators in numerous fields of life.

The education at MBS will provide advanced and in-depth knowledge of various subjects at undergraduate and postgraduate level so they may start their professional career better than simply master's degree holders.

It is a 4-year degree program with 8 semesters and consisting of 129 credit hours including Business Project/Internship Report of 3 credit hours.

Why BS Commerce:

The major aim of this program is to prepare the mind of youngsters so that they may gather appropriate knowledge of commerce, business, accounting, finance, and economics and can get familiarized with tally of research. In precise verdict such field of subjects helps the nation to produce quality management in their entire respective field of life. Students here opt for state of the art computer lab, multimedia and internet for benefiting their minds by getting useful and latest knowledge about their subject or field of interest and hovering around latest infrastructure.

With the economic development of the country, commercial activity increases, which results in the creation of employment. As every business activity needs finance and accounting as core function, therefore, qualification in this field facilitates better job prospects and quick entry to the practical field. Further, knowledge of accounting and finance helps science students to excel in their



career e.g., science students in advance stage of their career, may require financial management skills to prepare budget and forecasts, managing cash inflows and outflows, etc. for their department. The accounting and finance skills assist such professionals to reach top management positions including heading their own departments of technical nature. Further, accounting and finance has a close relationship with logics and mathematics. It is observed that students with mathematical background find accounting and finance related courses more convenient to study as compared to any other profession.

Human Resource (HR) and Training & Development are emerging areas. The knowledge of accounting and finance helps HR professionals to have a better understanding of payroll, compensation and reward management, while ensuring cost and benefit analysis (CBA). It will facilitate them to prepare better projections about organization's financial liability to manage human resources. With regard to training and development, professionals dealing in this area need skills to prepare financial feasibility, income statements, etc. to launch and conclude training programs.

Core objective of BS Commerce:

Providing quality education to the young men and women so that they should develop lust for having compatible knowledge of all the major areas of finance, accounting, economics, management, commerce and most essentially pre-requisites of research, which promises their future growth and successful excel in their relative field of study.

Let the students be familiarizing themselves with the cruxes of wide range of problems and practices into the fields of commerce, industry and economy.

Improving the analytical footings of the aspirants so that they should have sufficient knowledge of the techniques that are used to reduce or probably resolve large managerial problems.

For maintaining concrete beneficial relationship with commerce, trade, industry, government and non-profit organizations and to develop intellect minds that could serve the future office needs better.

Preparing and proliferation the minds of the young men and women and to furbish them with entrepreneurial caliber and thrift that is necessary to revive in today's global community.

Student Learning Outcomes:

Students qualified the degree of BS Commerce will undoubtedly:

- 1: Be familiar to the crux of business and industrial persuasions
- 2: Be in a position to use efficiently the relevant knowledge in the field of commerce and industry.
- 3: Be easily highlighting the way outs of the problems and practices into the fields of commerce.
- 4: Be having improved analytical footing of the aspirants so that they should have sufficient knowledge of the techniques used to reduce or probably resolve at large managerial problems.
- 5: Be maintaining concrete beneficial relationship with commerce, trade, industry, government and non-profit organizations.
- 6: Be having sufficient intellectual mind that could let them serve future needs better



7: Be having a decent and gentle man personality that is reflected through their analytical the thoughtful approach towards their field of study.

BS Commerce Student Outcomes:

The aspirants should be able to:

- Communicate effectively the problems and crux of commerce, industry and business.
- Have a thought full personality with sharp minded approach in communication the recent trends in the field of commerce.
- Having good financial and economic background of study help them know comprehensively about the global changing patterns in business world.
- Having ability to use variety of analytical tools in order to judge the current state of business in all respect.

General Assessment:

Each semester contains 18 weeks of study that is exclusive of two weeks devoted for the conduction of midterm and final term examination. Midterm examination is to commence after 8 weeks of study and final term examination after 7 weeks of study since the resume of class work very after midterm examination. In the meantime, students are awarded sessional marks which are justified in the line with the take up of written quizzes and assignments on various topics.

After 6th semester each student undergoes 6-8 weeks of internship in some reputable and renowned organization and is required to prepare internship report at the climax. Internship viva voce and comprehensive examination is mandatory to be qualified before issuance of final result transcript or degree.

Internship:

Nothing compares to hands on experience. BS Commerce program has requisites of 6 to 8 weeks of internship programs that executed in renowned banks, industry and accountancy firms etc. which upgrade student knowledge and sharpens his/her skills so that they are to get industry ready. On the successful completion of all degree requirements, the aspirants let wide job placement market open diligently for themselves. They can easily pursue their career endeavors in industry, media and communication as well as multi-national organizations. They can also opt for professional accountancy courses wherein they qualify to be accorded exemptions in some of the subjects offered to them in subsequent study tenure.

1. Finance
2. Marketing
3. Human Resource Management
4. Accounting

During 8th semester it will be compulsory for all students to do a capstone project and go through a comprehensive evaluation system

Eligibility Criteria for Admission:

Higher Secondary School Certificate (HSSC) or Equivalent securing at least 45% marks in aggregate.

Entry Test as per university rules.

Degree Requirements:

Candidates must successfully complete following requirements for grant of BS Commerce degree:



Courses	Semester Credit Hrs.
(a) Core Courses	114 SCH
(b) Elective	09 SCH
(c) Internship Report	03 SCH
(d) Capstone Project	03 SCH
Total	129 SCH

Scheme of Study of (BS Commerce)

Duration:	08-12 Semesters
Course Work:	123 Credits
Internship Report	03 Credits
Capstone Project	03 Credits
Holy Quran with Translation, Tajweed and Tafseer	S/U Basis (In each Semester)
Total Credit Hours:	129 Credits

Semester-I		
Code	Course Title	Cr.Hrs
GEN-1101	Islamic Studies	2(2-0)
GEN-1102	Introduction to Sociology	2(2-0)
GEN-1103	Application of Information and Communication Technologies	3(2+1)
GEN-1104	Functional English	3(3-0)
BCM-1105	Financial Accounting-I	3(3-0)
BCM-1106	Introduction to Business	3(3-0)
HQT-1101	Holy Quran with Translation, Tajweed and Tafseer	IP
Semester -II		
Code	Course Title	Cr.Hrs

GEN-1201	Introduction to Expository Writing	3(3-0)
GEN-1202	Pakistan Studies	2(2-0)
BCM -1203	Financial Accounting-II	3(3-0)
BCM-1204	Banking Currency and Finance	3(3-0)
BCM-1205	Introduction to Business Finance	3(3-0)
BCM-1206	Business Research Methods	3(3-0)
HQT-1101	Holy Quran with Translation, Tajweed and Tafseer	IP
Semester -III		
Code	Course Title	Cr.Hrs
GEN-2301	Introduction to Philosophy	2(2-0)
GEN-2302	Introduction to Entrepreneurship	2(2-0)
GEN-2303	Exploring Quantitative Skills	3(3-0)
BCM-2304	Business Taxation	3(3-0)
BCM-2305	Principles of Management	3(3-0)
BCM-2306	Cost Accounting	3(3-0)
HQT-1101	Holy Quran with Translation, Tajweed and Tafseer	IP
Semester-IV		
Code	Course Title	Cr.Hrs
ARA-2401	Arabic	3(3-0)
GEN-2402	Civic and Community Engagement	2(2-0)
GEN-2403	Tools for Quantitative Reasoning	3(3-0)
GEN-2404	Science of Global Challenges	3(2+1)
BCM-2405	Principles of Marketing	3(3-0)
BCM-2406	Human Resource Management	3(3-0)
HQT-1101	Holy Quran with Translation, Tajweed and Tafseer	IP
Semester-V		



Code	Course Title	Cr.Hrs
BCM-3501	Business Ethics	3(3-0)
BCM-3502	Consumer Behaviour	3(3-0)
BCM-3503	Advance Accounting	3(3-0)
ECO-3506	Microeconomics	3(3-0)
PSY-3519	Introduction to Psychology	3(3-0)
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	IP
Semester-VI		
Code	Course Title	Cr.Hrs
BCM-3601	Financial Management	3(3-0)
BCM-3602	Organizational Behaviour	3(3-0)
BCM-	Elective-I	3(3-0)
ECO-3606	Macro Economics	3(3-0)
MAT-3615	Business Mathematics	3(3-0)
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	IP
Semester-VII		
Code	Course Title	Cr.Hrs
BCM-4701	Advances in Entrepreneurship	3(3-0)
BCM-4702	Management Accounting	3(3-0)
BCM-4703	Auditing	3(3-0)
BCM-4704	Project Management	3(3-0)
BCM-4705	Internship	3(0-3)
BCM-	Elective-II	3(3-0)
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	IP

Semester-VIII		
Code	Course Title	Cr.Hrs
BCM-4801	Operation and Production Management	3(3-0)
BCM-4802	Strategic Management	3(3-0)
BCM- 4803	Capstone Project	3(0-3)
BCM- 4804	Corporate Law	3(3-0)
BCM-	Elective-III	3(3-0)
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	S/U
Total Credit Hours		129

* A detailed research project of an industry in the field of specialization of the candidate.

Optional Subjects: Any one course from the selected field of specialization.

FIELDS OF SPECIALIZATION:

Finance	
FIN-3603	Analysis of Financial Statements
FIN-3604	Behavioral Finance
FIN-4706	Investment Analysis and Portfolio Management
FIN-4707	Principles of Islamic Finance
FIN-4805	International Financial Management
FIN-4806	Corporate Finance
HRM	
HRM-3603	Recruitment and Selection
HRM-3604	Strategic Human Resource Management
HRM-4706	Human Resource Development



HRM-4707	Compensation and Benefits Management
HRM-4805	Negotiation and Conflict Management
HRM-4806	Performance Management
Marketing	
MKT-3603	Advertising and Promotion
MKT-3604	International Marketing
MKT-4706	Brand Management
MKT-4707	Strategic Marketing
MKT-4805	Sales Management
MKT-4806	Digital Marketing
Accounting	
ACC-3603	Advanced Cost Accounting
ACC-3604	Public Sector Accounting
ACC-4706	Advanced Managerial Accounting
ACC-4707	Banking Accounting
ACC-4805	Strategic Management Accounting
ACC-4806	Audit and Assurance



BS (Accounting & Finance):

The Bachelor of Science in Accounting and Finance is a highly specialized degree, preparing the graduate as having expertise in Accountancy and Finance. The students will acquire the knowledge and technical skills needed to analyze accounting/finance and business problems, and they will understand best how to communicate and use financial information to support business decisions. The degree offers specialization in Accounting and Finance.

With the management of financial information underpinning all business activities, there are more employment and career opportunities in accounting and finance than many other areas of study. This degree will prepare students for a rewarding career in any sector of the economy. The graduates may work as a Financial Accountant, Management Accountant, Auditor, Chief Financial Officer, Financial Advisor and Tax Specialist.

Why Bachelor of Science in Accounting and Finance

A management degree equips you with extensive knowledge of business, finance, economics, and marketing. It teaches you a range

of practical skills, making graduates into professional employees by allowing them to work in public, private, or voluntary sectors. Business graduates are high in demand worldwide and a degree in Management opens avenues to many diverse career paths.

Degree Requirements

The Bachelor of Science in Accounting and Finance is a four-year degree program and consists of 132 credit hours of study. A compulsory requirement for students will be to submit a research

dissertation at the end of the degree program. The normal duration for completion of Bachelor of Science in Accounting and Finance degree is 8 semesters over a period of 4 years. During 8th semester it will be compulsory for all students to do a capstone project and go through a comprehensive evaluation system.

General Assessment

Each semester contains 18 weeks of study that is exclusive of two weeks devoted for the conduction of midterm and final term examination. Midterm examination is to commence after 8 weeks of study and final term examination after 7 weeks of study since the resume of class work very after midterm examination. In the meantime, students are awarded sessional marks which are justified in the line with the take up of written quizzes and assignments on various topics.

After 6th semester students will do Internship of 6-8 Weeks and a Capstone Project in 8th Semester. After submission of Internship Report/Final Project students will be evaluated through internal and then external defence.

Eligibility Criteria for Admission

Higher Secondary School Certificate (HSSC) or Equivalent securing at least 45% marks in aggregate.
Entry Test as per university rules.

Degree Requirements

Candidates must successfully complete following requirements for grant of BS (Accounting & Finance) degree:

Courses	Semester Credit Hrs.
(a) Core Courses	126 SCH



(c) Internship Report	03 SCH
(d) Capstone Project	03 SCH
Total	132 SCH

Scheme of Study of BS (Accounting & Finance)

Duration:	08-12 Semesters
Course Work:	126 Credits
Internship Report	03 Credits
Capstone Project	03 Credits
Holy Quran with Translation, Tajveed and Tafseer	S/U Basis (In each Semester)
Total Credit Hours:	132 Credits

Semester-I		
Code	Course Title	Cr.Hrs
ARA-1101	Arabic	3(3-0)
GEN-1102	Functional English	3(3-0)
GEN-1103	Pakistan Studies	2(2-0)
GEN-1104	Application of Information and Communication Technologies	3(2+1)
BAF-1105	Introduction to Business	3(3-0)
BAF-1106	Financial Accounting-I	3(3-0)
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	IP

Semester –II		
Code	Course Title	Cr.Hrs
GEN-1201	Islamic Studies	2(2-0)
GEN-1202	Introduction to Sociology	2(2-0)
GEN-1203	Introduction to Expository Writing	3(3-0)

BAF-1204	Financial Accounting-II	3(3-0)
BAF-1205	Introduction to Business Finance	3(3-0)
BAF-1206	Business Research Methods	3(3-0)
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	IP

Semester –III		
Code	Course Title	Cr.Hrs
GEN-2301	Civic and Community Engagement	2(2-0)
GEN-2302	Tools for Quantitative Reasoning	3(3-0)
GEN-2303	Science of Global Challenges	3(2+1)
BAF-2304	Fundamentals of Cost Accounting	3(3-0)
BAF-2305	Financial Management	3(3-0)
BAF-2306	Principles of Management	3(3-0)
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	IP

Semester-IV		
Code	Course Title	Cr.Hrs
GEN-2401	Introduction to Philosophy	2(2-0)
GEN-2402	Introduction to Entrepreneurship	2(2-0)
GEN-2403	Exploring Quantitative Skills	3(3-0)
BAF-2404	Islamic Principles of Finance	3(3-0)
BAF-2405	Advance Cost Accounting	3(3-0)
ECO-2406	Microeconomics	3(3-0)
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	IP

Semester-V		
Code	Course Title	Cr.Hrs
BAF-3501	Advance Accounting	3(3-0)



BAF-3502	Principles of Marketing	3(3-0)
BAF-3503	Human Resources Management	3(3-0)
BAF-3504	Investment Analysis and Portfolio Management	3(3-0)
ECO-3506	Macro Economics	3(3-0)
MAT-3515	Business Mathematics	3(3-0)
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	IP
Semester-VI		
Code	Course Title	Cr.Hrs
BAF-3601	Audit and Assurance	3(3-0)
BAF-3602	Financial Reporting	3(3-0)
BAF-3603	Business Taxation	3(3-0)
BAF-3604	Strategic Management	3(3-0)
BAF-3605	Managerial Accounting	3(3-0)
PSY-3619	Introduction to Psychology	3(3-0)
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	IP
Semester-VII		
Code	Course Title	Cr.Hrs
BAF-4701	Advanced Managerial Accounting	3(3-0)
BAF-4702	Corporate Finance	3(3-0)
BAF-4703	Advances in Entrepreneurship	3(3-0)
BAF-4704	Financial Risk Management	3(3-0)
BAF-4705	Internship	3(3-0)
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	IP

Semester-VIII		
Code	Course Title	Cr.Hrs
BAF-4801	Business Ethics and Corporate Governance	3(3-0)
BAF-4802	Behavioral Finance	3(3-0)
BAF-4803	Accounting for Financial Services	3(3-0)
BAF-4804	International Financial Management	3(3-0)
BAF-4805	Capstone Project	3(0-3)
HQT-1101	Holy Quran with Translation, Tajveed and Tafseer	S/U
Total Credit Hours		132

The background features a large, stylized hand silhouette in shades of purple and pink, reaching from the top left towards the center. A dark purple horizontal band spans the middle of the image, containing the text. The background is also filled with a hexagonal grid pattern, various medical icons (such as a heart with a pulse line, a first aid kit, a plus sign, and a person in a lab coat), and a faint outline of a building. The overall color palette is dominated by purples, pinks, and dark blues.

FACULTY OF

**HEALTH AND MEDICAL
SCIENCES**



Dean:

Prof. Dr. Anwar Khitab

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Dean's Message

Welcome to Mirpur University of science & technology, Faculty of Health & Medical Sciences. We invite you to join our outstanding and diverse community of faculty, staff, and students. At the Faculty of Health & Medical Sciences (FHMS), we share a common vision of working with local, national, and global communities, researchers and partners to improve the health and well-being of all people. Our Faculty of Health and Medical Sciences consists of five departments: Doctor of Pharmacy (Pharm-D), Doctor of Physical Therapy (DPT), Human Nutrition and Dietetics (HND), Allied Health Sciences (AHS) & Microbiology. The main purpose of our faculty is to train health professionals of the future who have ethical values, are responsible towards society, have a passion for learning and research, are creative, innovative, integrative and sharing. Our learners strive to improve health care for deserving populations, design livable and sustainable urban environments, and develop equitable social and health policies and practices.

Employment in healthcare is projected to continue to grow much faster than the average for all other professions. There is a dire need for educated graduates with comprehensive knowledge of health-related issues. In our education system that blends theory and practice, our students acquire the necessary skills and competencies and complete them in clinical environments. Thus, many career paths can be opened for our graduating students. Our graduates are equipped with the skills necessary to adapt to the changing needs of the health workforce, and our unique interdisciplinary programs prepare them to address complex societal challenges with the breadth of knowledge required.

Visit us and meet the incredible faculty, staff, and students who make the FHMS community vibrant, engaged, collaborative, and respected.



Faculty Members of health and Medical Sciences



DEPARTMENT OF Pharmacy





Chairman:

Dr. Mian Muhammad Zeeshan Javaid

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Chairman's Message:

It is my pleasure to extend a warm welcome to all who are part of our vibrant academic community. The Department of Pharmacy MUST, is one of the best department offering Pharm. D in Azad Jammu & Kashmir. We collaborate with inter and multidisciplinary aspects to impart quality education. Pharmacy education ensures that pharmacists have the knowledge and skills to dispense medication safely, provide medication therapy management, counsel patients on proper medication use, and identify potential drug interactions or adverse effects. Additionally, pharmacists play a vital role in implementations of GMP in the Pharma sector, collaborating with other professionals to optimize patient outcomes.

In today's dynamic world, a professional development, dignity and self-grooming are of supreme importance and through our campus, we are creating an environment for future leaders, entrepreneurs, and professionals who possess skills and aptitudes in an array of

functional disciplines. We believe in outmost professionalism and that's how our dedicated faculty members are passionate about providing innovative teaching, cutting-edge research opportunities, and hands-on learning experiences to empower our students for success in their future endeavors.

Whether you are a prospective student exploring our programs, a current student pursuing your academic goals, a faculty member driving research and innovation, or a member of our supportive staff contributing to the Department's mission, I encourage you to take advantage of the myriad opportunities available here. As we embark on this academic journey together, let us embrace diversity, inclusivity, and collaboration as the cornerstones of our community.



Faculty Members:

Mr. Aqeel Mahmood

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Mr. Sadais Ahmed

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Qualification: M.Phil (Pharmaceutical Chemistry)

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Faculty Members of Pharmacy

Program's Mission

The department is keen to provide high-quality education and training with the latest and multidisciplinary means to prepare pharmacists with high scientific and professional capabilities and skills to be leaders in their specialties able to spread health culture and provide the best society health care.

Program Vision

To become a Centre of Excellence of Pharmacy Education and Research and to serve the society by developing in students heightened intellectual, cultural, ethical and human sensitivities; to foster a scientific temper and to promote professional and technological expertise.

Program's Learning Objectives:

- Providing the highest levels of knowledge, skills and encouragement of college students through using the latest educational means.
- Preparation of qualified pharmacists to work in health institutions, community pharmacies, pharmaceutical laboratories, pathological analysis laboratories, pharmaceutical factories, in addition to companies involved in drug marketing.
- Developing the role of the pharmacist as a vital and effective part of the health care system.
- Upgrading the quality of education, scientific research, and pharmaceutical practice in order to reach the best international standards.

- The department makes great efforts to be distinguished among the colleges of the region.
- Effective participation in spreading health awareness and culture in society.
- Holding conferences, seminars and working on linking university education with reality and application to meet the needs of society.
- Cooperating with local and international educational, research, industrial and commercial institutions to achieve the college's goals



Admission Criterion:

F.Sc. Pre-medical or equivalent with minimum 60% marks.



Scheme of Studies for Pharm. D.

Title of Degree	Pharm. D. (Doctor of Pharmacy)
Total Duration	10-16 semesters
Minimum duration	10 Semesters
Maximum duration	16 Semesters
Total Credit hours	199 Credit Hours

1st Professional Pharm-D.

1 st semester		
Course Code	Subject	Cr. Hr.
HQT 128	Holy Quran with Translation, Tajveed and Tafseer	01 (S/U) Continued till 10 th semester
ENG 300	English-A (Functional English)	2
PHARM 310	Pharmaceutics-IA (Physical Pharmacy)	3+1
PHARM 311	Pharmaceutical Chemistry-IA (Organic)	3+1
PHARM 312	Pharmaceutical Chemistry-IIA (Biochemistry)	3+1
PHARM 313	Physiology-A	3+1
PHARM 314	Anatomy and Histology	3+1
Total Cr. Hr		23
2 nd semester		
Course Code	Subject	Cr. Hr.
ENG 301	English-B (Communication and Writing skills)	4
PHARM 315	Pharmaceutics-IB (Physical Pharmacy)	3+1

PHARM 316	Pharmaceutical Chemistry-IB (Organic)	3+1
PHARM 317	Pharmaceutical Chemistry-IIB (Biochemistry)	3+1
PHARM 318	Physiology-B	3+1
Total Cr. Hr		20

2nd Professional Pharm-D.

3 rd semester		
Course Code	Subject	Cr. Hr.
IS 402	Islamic Studies /Ethics	3
PHARM 410	Pharmaceutics-IIA (Dosage Forms Science)	3+1
PHARM 411	Pharmaceutics-IIIA (Pharmaceutical Microbiology and Immunology)	3+1
PHARM 412	Pharmacology and Therapeutics-IA	3+1
PHARM 413	Pharmacognosy-IA (Basic)	3+1
PHARM 414	Pharmacy Practice-IA (Pharmaceutical Mathematics)	3
Total Cr. Hr		22
4 th semester		
Course Code	Subject	Cr. Hr.
PS 403	Pakistan Studies	2
PHARM 415	Pharmaceutics-IIB (Dosage Forms Science)	3+1
PHARM 416	Pharmaceutics-IIIB (Pharmaceutical Microbiology and Immunology)	3+1
PHARM 417	Pharmacology and Therapeutics-IB	3+1
PHARM 418	Pharmacognosy-IB (Basic)	3+1
PHARM 419	Pharmacy Practice-IB (Bio-statistics)	3
Total Cr. Hr		21



3rd Professional Pharm-D.

5 th semester		
Course Code	Subject	Cr. Hr.
PHARM 510	Pharmacy Practice-IIA (Dispensing Pharmacy)	3+1
PHARM 511	Pharmaceutical Chemistry-III A (Pharmaceutical Analysis)	3+1
PHARM 512	Pharmacology and Therapeutics-IIA	3+1
PHARM 513	Pharmacognosy-IIA (Advanced)	3+1
PHARM 514	Pathology	3+1
Total Cr. Hr		20

6 th semester		
Course Code	Subject	Cr. Hr.
PHARM 515	Pharmacy Practice-IIB (Community, Social and Administrative Pharmacy)	3
PHARM 516	Pharmaceutical Chemistry-III B (Pharmaceutical Analysis)	3+1
PHARM 517	Pharmacology and Therapeutics-IIB	3+1
PHARM 518	Pharmacognosy-IIB (Advanced)	3+1
PHARM 519	Pharmacy Practice-III (Computer and Application in Pharmacy)	3+1
Total Cr. Hr		19

4th Professional Pharm-D.

7 th semester		
Course Code	Subject	Cr. Hr.
PHARM 610	Pharmacy Practice-IVA (Hospital Pharmacy)	3

PHARM 611	Pharmacy Practice-VA (Clinical Pharmacy-I)	3+1
PHARM 612	Pharmaceutics-IVA (Industrial Pharmacy)	3+1
PHARM 613	Pharmaceutics-VA (Biopharmaceutics and Pharmacokinetics)	3+1
PHARM 614	Pharmaceutics-VIA (Pharmaceutical Quality Management)	3+1
Total Cr. Hr		19

8 th semester		
Course Code	Subject	Cr. Hr.
PHARM 615	Pharmacy Practice-IVB (Hospital Pharmacy)	3
PHARM 616	Pharmacy Practice-VB (Clinical Pharmacy-I)	3+1
PHARM 617	Pharmaceutics-IVB (Industrial Pharmacy)	3+1
PHARM 618	Pharmaceutics-VB (Biopharmaceutics and Pharmacokinetics)	3+1
PHARM 619	Pharmaceutics-VIB (Pharmaceutical Quality Management)	3+1
Total Cr. Hr		19

5th Professional Pharm-D.

9 th semester		
Course Code	Subject	Cr. Hr.
PHARM 710	Pharmaceutics-VIIA (Pharmaceutical Technology)	3+1



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PHARM 711	Pharmacy Practice-VIA (Advanced Clinical Pharmacy-II)	3+1
PHARM 712	Pharmacy Practice-VIIA (Forensic Pharmacy)	3
PHARM 713	Pharmacy Practice-VIIIA (Pharmaceutical Management and Marketing)	3
PHARM 714	Pharmaceutical Chemistry-IVA (Medicinal Chemistry)	3+1
Total Cr. Hr		18
10th semester		
Course Code	Subject	Cr. Hr.
PHARM 715	Pharmaceutics-VIIB (Pharmaceutical Technology)	3+1
PHARM 716	Pharmacy Practice-VIB (Advanced Clinical Pharmacy-II)	3+1
PHARM 717	Pharmacy Practice-VIIB (Forensic Pharmacy)	3
PHARM 718	Pharmacy Practice-VIIIB (Pharmaceutical Management and Marketing)	3
PHARM 719	Pharmaceutical Chemistry-IVB (Medicinal Chemistry)	3+1
Total Cr. Hr		18



Student's Feedback

I am thoroughly impressed with the quality and depth of Pharmacy program at MUST University. It offers a solid foundation of theoretical and practical skills, preparing students well for careers in healthcare. Great faculty with industry experience, which has shown in labs would enhance experience. Supportive academic environment and helpful resources for research. It will give more exposure to real world pharmacy practice.

Usaid Javed Pharm-D (4th-Semester)



Overall, my pharmacy experience at MUST has been incredibly rewarding. Thanks to the dedicated and experienced faculty. The program offers a well-rounded curriculum, covering all fundamental aspects of Pharmacy. The university provides modern, well-equipped laboratories that enhance practical teaching. By integrating theoretical knowledge and practical skills, the program effectively prepares students for success in the professional field.

Aneeqa Javed Pharm-D (2nd Semester)



DEPARTMENT OF
Physiotherapy





Coordinator:

Dr. Ayesha Jamal

Tel.: +92-5827-961055

E-mail: chairperson.dpt@must.edu.pk

Message from Coordinator:

It is a great honor for me to welcome you in the Department of Physiotherapy. It was established in 2020 under the umbrella of faculty of Health and Medical Sciences. Our department is privileged to impart the health care education and clinical training for future leaders. Physiotherapy is an emerging field in our country which has a big horizon and a good potential.

Our vision is to propel the advancement of physical therapy through exceptional education, pioneer research, and innovative practice, making it a cornerstone of individual's well-being and thriving the inclusive communities. We are dedicated to providing top-tier education and training for physical therapists, both new and seasoned, to equip them with the skills and knowledge necessary to excel in their field.

We strive to enhance physical therapy practices through continuous improvement, innovation, and application of cutting-edge research. We aim to cultivate leadership qualities in our students, empowering them to lead in their profession,

communities, and broader healthcare field. Our commitment extends beyond education and practice; we actively engage and contribute to the well-being of our communities through outreach services, and collaborative efforts.



Faculty Members:

Dr. Rijja Afreen

Designation: Lecturer

Qualification: MBBS

Email: rijja.dpt@must.edu.pk

Dr. Samra Ismail

Designation: Lecturer

Qualification: MS-OMPT

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Dr. Majida Shakir

Designation: Lecturer

Qualification: DPT-M.Sc

Email: majidashakir@gmail.com



Faculty Members of Physiotherapy



Program's Mission

The mission of Doctor of Physiotherapy (DPT) program at MUST is to cultivate exceptional physical therapy professionals who are dedicated to advancing healthcare through evidence-based practice, compassionate patient care, and continuous learning.

The program is committed to fostering a collaborative and inclusive learning environment that prepares graduates to excel as competent practitioners, researchers, and scholars in the dynamic field of physiotherapy.

Program Vision

Rehabilitate society by utilizing the holistic approach, resulting in the highest level of independence for our patients.

Program's Educational Objectives:

The Doctor of Physical Therapy is a clinical degree that signifies the high level of education and training in the field of physical therapy. It is conferred upon individuals who have successfully completed a rigorous and comprehensive program that combines theoretical knowledge, clinical skills, and research expertise. DPT graduates are equipped to evaluate, diagnose, and treat a wide range of movement disorders and functional limitations across the lifespan.

- To develop clinical expertise in the examination, evaluation, and management of cardiovascular, neuromuscular, musculoskeletal, cardiopulmonary, gynecological, pediatric, geriatrics and Sport Physical therapy.

- To amalgamate the patient values and preferences into treatment plans, recognizing the unique needs of individuals from diverse backgrounds.
- Promote a foundation of critical thinking skills, enabling graduates to analyze and apply current research evidence to inform clinical decision-making.
- Nurture collaboration and effective communication with other healthcare professionals to facilitate comprehensive patient care.



Duration:
10 Semesters
Admission Criterion:
F.Sc. Pre-medical or equivalent with minimum 60% marks.



Scheme of Studies for (DPT)

Title of Degree	Doctor of Physical Therapy
Minimum Duration	10 Semesters
Maximum Duration	16 semesters
Total Credit hours	173 Credit Hours

1 st Semester		
Course Code	Subject	Cr. Hr.
BPT-1101	Anatomy-I	3+1
BPT-1102	Physiology-I	2+1
BPT-1103	Kinesiology-I	2+1
BPT-1104	Biochemistry-I	2+0
COM-1105	Applications of Information and Communication Technologies (ICT)	2+1
ENG-1107	English-I (Functional English)	3+0
HQT-1128	Teaching of Holy Quran with Translation, Tajweed and Tafseer	01 (S/U) (Continued till 10 th semester)
Total Credit Hours		19
2 nd Semester		
Course Code	Subject	Cr. Hr.
BPT-1201	Anatomy-II	3+1
BPT-1202	Physiology-II	2+1
BPT-1203	Kinesiology-II	2+1
BPT-1204	Biochemistry-II	2+1
ENG-1207	English-II (Expository Writing)	3+0

ISL-1212	Islamic Studies/Ethics	2+0
Total Credit Hours		18
3 rd Semester		
Course Code	Subject	Cr. Hr.
BPT-2301	Anatomy-III	3+1
BPT-2302	Physiology-III	2+1
BPT-2303	Medical Physics	2+1
BPT-2304	Biomechanics & Ergonomics-I	3+0
BPT-2305	Civics and Community Engagement	2+0
PS-2317	Ideology and Constitution of Pakistan	2+0
Total Credit Hours		17
4 th Semester		
Course Code	Subject	Cr. Hr.
BPT-2401	Anatomy-IV (Neuro Anatomy)	2+1
BPT-2402	Exercise Physiology	2+1
BPT-2403	Health & Wellness	2+0
BPT-2404	Molecular Biology & Genetics	2+0
BPT-2405	Biomechanics & Ergonomics-II	2+1
BPT-2406	Entrepreneurship	2+0
SOC-2421	Medical Sociology	2+0
Total Credit Hours		17
5 th Semester		
Course Code	Subject	Cr. Hr.
BPT-3501	Pathology & Microbiology-I	2+0
BPT-3502	Pharmacology & Therapeutics-I	2+0
BPT-3503	Physical Agents & Electrotherapy-I	2+1
BPT-3504	Therapeutic Exercises & Techniques	2+1
BPT-3505	Philosophy	2+0



BPT-3506	Supervised Clinical Practice-I	0+3
STA-3520	Quantitative Reasoning –I	3+0
Total Credit Hours		18
6th Semester		
Course Code	Subject	Cr. Hr.
BPT-3601	Pathology& Microbiology-II	2+1
BPT-3602	Pharmacology & Therapeutics-II	2+0
BPT-3603	Physical Agents & Electrotherapy-II	2+1
STA-3620	Quantitative Reasoning-II	3+0
BPT-3604	Community Medicine & Rehabilitation	3+0
BPT-3605	Supervised Clinical Practice-II	0+3
Total Credit Hours		17
7th Semester		
Course Code	Subject	Cr. Hr.
BPT- 4701	Medicine I	3+0
BPT-4702	Surgery I	3+0
BPT-4703	Radiology & Diagnostic Imaging	2+1
BPT-4704	Musculoskeletal Physical Therapy	2+1
BPT-4705	Evidence Based Practice	2+1
BPT-4706	Supervised Clinical Practice-III	0+3
Total Credit Hours		18
8th Semester		
Course Code	Subject	Cr. Hr.
BPT-4801	Medicine II	3+0
BPT-4802	Surgery II	3+0
BPT-4803	Scientific Inquiry & Research Methodology	2+0
BPT-4804	Neurological Physical Therapy	2+1

BPT-4805	Manual Therapy	2+1
BPT-4806	Supervised Clinical Practice-IV	0+3
Total Credit Hours		17
9th Semester		
Course Code	Subject	Cr. Hr.
BPT-5901	Cardiopulmonary Physical Therapy	2+1
BPT-5902	Clinical Decision Making & Differential Diagnosis	3+0
BPT-5903	Emergency Procedures & Primary Care in Physical Therapy	2+1
BPT-5904	Professional Practice (Laws, Ethics & Administration)	2+0
BPT-5905	Integumentary Physical Therapy	2+0
BPT-5906	Supervised Clinical Practice V	0+3
Total Credit Hours		16
10th Semester		
Course Code	Subject	Cr. Hr.
BPT-51001	Obstetrics & Gynecological Physical Therapy	2+0
BPT-51002	Pediatric Physical Therapy	2+0
BPT-51003	Gerontology & Geriatric Physical Therapy	2+0
BPT-51004	Sports Physical Therapy	2+0
BPT-51005	Prosthetics & Orthotics	2+0
BPT-51006	Capstone Project	0+6
Total Credit Hours		16



Student's Feedback:

My journey as a physiotherapy student at MUST has been an enlightening one, with comprehensive career counselling and skill management. The research-oriented approach has kept me updated on latest advancements. The exceptional facilities include labs, libraries, clinical rotations, cooperative faculty and many more. In short, the excellent management has made me dedicated to my field.



Fatima Iqbal-DPT (8 Semester)

As a DPT student, I want to commend my university for several positive aspects that have contributed to my academic and personal growth. The DPT faculty has been exceptional, providing valuable insights and support throughout the program. The well-equipped facilities and access to cutting-edge technology have enhanced our learning experience and prepared us for real-world challenges.



Ibrahim Nawaz DPT (4th Semester)



DEPARTMENT OF Allied Health Sciences





Coordinator:

Mr. Aqeel Mahmood

Tel.: +92-5827-961055

E-mail: chairperson.ahs@must.ed.pk

Coordinator's Message:

Welcome to the Department of Allied Health Sciences at Mirpur University of Science and Technology (MUST), Mirpur. This is a pristine enterprise through which we intend to develop outstanding human resources in diverse areas of health sciences. The objective of the department is to prepare Allied Health Professionals who can work efficiently to provide patient-centered Allied Health services for the community. We suppose our graduates to be hard-working, honest, and up-to-date professionals who show compassion for the human condition and will leave lasting footprints on our society.

To encounter imminent challenges, a conducive environment is provided to our students to effectively steer through a rigorous set of theory and laboratory-based courses. Currently, the department is offering following two programs:

- i. BS-Medical Lab Technology (BS-MLT)
- ii. BS-Surgical & Operation Theater Technology (BS-S&OTT)

The curriculum is designed keeping in view the personality development and academic excellence of the students and as per the requirements of national and international standards. Evidently, our outgoing Health Professionals would be an asset in the field of laboratory testing and providing valid data to the physicians for utilization in diagnostic and decision-making process.

We welcome you to become a part of the DAHS where you will be trained as Allied Health Professionals to play a key role in curing the fractures in society through progressiveness, kindness, and restful coexistence.



Faculty Members

Ms. Farhat Shaheen

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Dr. Fatima Khurshid

Designation: Lecturer

Qualification: MBBS

Email: Fatimakhurshid61@yahoo.com

Dr. Noor-Ul-Ain

Designation: Lecturer

Qualification: MBBS

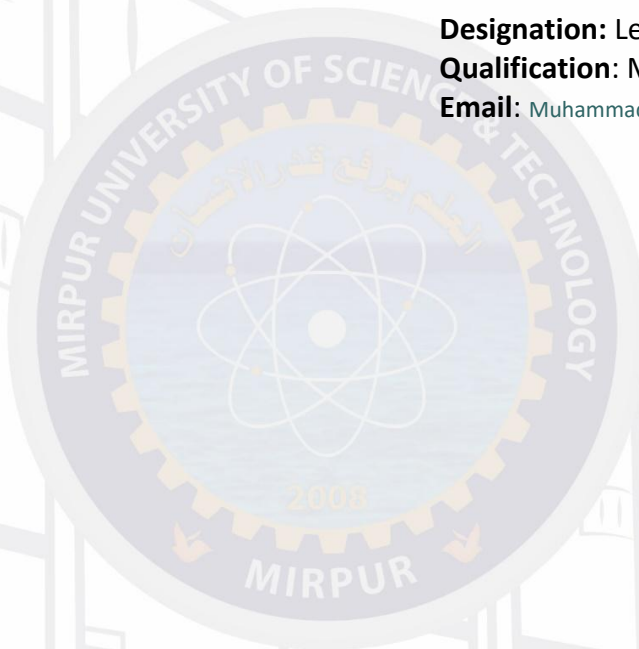
Email: Noorjarra3@gmail.com

Dr. Hamza Zafar

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Qualification: MBBS

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Faculty members of Allied Health Sciences

Program's Mission

To provide quality didactic and latest scientific technology-based approaches for establishing affective domains of learning at graduate level. MUST seek professional development that have the best of both worlds i.e., techniques and science. Exposure of operating complex electronic equipment, precision instruments and be trained to identify various diseases and human systems using modern technology and a battery of scientific methods will enable physicians to rely over their knowledge and skills in areas of scientific exploration including immunology, microbiology, and hematology and surgical procedures through different techniques.

Program Vision

To empower students with comprehensive knowledge, skills, and ethical values in medical laboratory technology, enabling them to excel as competent professionals in healthcare, research, and innovation, contributing to improved patient outcomes and community well-being.

Program's Learning Objectives:

The overall goal of the program is to prepare graduates with the potential for progression to clinical laboratory scientists and leadership as supervisors, manager, and educators. The primary goals of the program are:

- To provide well-trained medical laboratory technologists to meet hospital and community needs
- To provide sufficient didactic and technical information for the student to understand analytical processes, interpret

analytical results and appreciate the clinical significance of analyses performed in a modern clinical laboratory

- To develop in the student, the technical laboratory skills to perform manual and automated procedures with confidence and reliability
- To provide instruction in laboratory instrumentation, quality control and quality assurance, laboratory management, research and educational methodology
- To provide a stimulating atmosphere to encourage continuing education of clinical laboratory environment





Admission Criterion:

F.Sc. Pre-medical or equivalent with minimum 60% marks.

Scheme of Studies for Medical Lab Technology (MLT)

Title of Degree		BS-Medical Lab Technology
Total Duration		08-12 semesters
Minimum duration		08 Semesters
Maximum duration		12 Semesters
Total Credit hours		136 Credit Hours
1 st Semester		
Course Code	Subjects	Cr. Hr.
BMLT-1101	Human Anatomy-I	3+0
BMLT-1102	Human Physiology-I	3+1
BMLT-1103	Biochemistry-I	3+1
ENG-1107	English-I (Functional English)	3+0
PS-1117	Ideology and Constitution of Pakistan	2+0
COM-1105	Applications of Information and Communication Technologies (ICT)	2+1
HQT-1128	Teaching of Holy Quran with Translation, Tajveed and Tafseer (Cont. till 8 th semester)	01 (S/U)
Total Credit Hours		20
2 nd Semester		
Course Code	Subjects	Cr. Hr.
BMLT-1201	Human Anatomy-II	3+0
BMLT-1202	Human Physiology-II	3+1

BMLT-1203	Biochemistry-II	3+1
ENG-1207	English-II (Expository Writing)	3+0
ISL-1212	Islamic Studies/Ethics	2+0
SOC-1221	Medical Sociology	2+0
Total Credit Hours		18

3 rd Semester		
Course Code	Subject	Cr. Hr.
BMLT-2301	Pathology-I	2+1
BMLT-2302	Pharmacology-I	3+0
BMLT-2303	Microbiology-I	3+1
BMLT-2304	Emergency Medicine-I	2+0
BMLT-2305	Civics and Community Engagement	2+0
MAT-2315	Quantitative Reasoning-I	3+0
Total Credit Hours		17

4 th Semester		
Course Code	Subject	Cr. Hr.
BMLT-2401	Pathology-II	2+1
BMLT-2402	Pharmacology-II	3+0
BMLT-2403	Microbiology-II	3+1
BMLT-2404	Emergency Medicine-II	2+0
BMLT-2405	History	2+0
STA-2420	Quantitative Reasoning-II	3+0
Total Credit Hours		17

5 th Semester		
Course Code	Subject	Cr. Hr.
BMLT-3501	Cytopathology	3+0
BMLT-3502	Histopathological Techniques-I	3+0



BMLT-3503	Clinical Virology & Immunology	3+0
BMLT-3504	Applied Physics & Engineering Sciences	2+1
BMLT-3505	Haematology-I	3+0
BMLT-3506	Research Methodology	3+0
Total Credit Hours		18
6th Semester		
Course Code	Subject	Cr. Hr.
BMLT-3601	Blood Banking	0+3
BMLT-3602	Histopathological Techniques-II	0+3
BMLT-3603	Body Fluid Analysis & Infection Control	0+3
BMLT-3604	Hematology-II	0+3
BMLT-3605	Clinical Practicum-I	0+3
Total Credit Hours		15
7th Semester		
Course Code	Subject	Cr. Hr.
BMLT- 4701	Clinical Practicum-II	10
BMLT-4702	Internship	15
Total Credit Hours		15
8th Semester		
Course Code	Subject	Cr. Hr.
BMLT-4801	Principles of Genetics	2+0
BMLT-4802	Forensic Toxicology	2+0
BMLT-4821	Bioethics	2+0
BMLT-4804	Capstone Project	0+3
BMLT-4805	Clinical Biochemistry	3+1

BMLT-4806	Laboratory Standards & Quality Assurance (LSQA)	3+0
Total Credit Hours		16

Scheme of Studies for Surgical & Operation Theatre Technology (S&OTT)

Title of Degree	BS-Surgical & Operation Theatre Technology
Total Duration	08-12 semesters
Minimum duration	08 Semesters
Maximum duration	12 Semesters
Total Credit hours	137 Credit Hours

1st Semester		
Course Code	Subject	Cr. Hr.
BSOT-1101	Human Anatomy-I	2+1
BSOT-1102	Human Physiology-I	3+1
BSOT-1103	Biochemistry-I	3+1
COM-1105	Introduction to Computer & IT	2+1
ENG-1107	English-I (Functional English)	3+0
PS-1117	Pakistan Studies	2+0
Total Credit Hours		19
2nd Semester		
Course Code	Subject	Cr. Hr.
BSOT-1201	Human Anatomy-II	3+1
BSOT-1202	Human Physiology-II	3+1
BSOT-1203	Biochemistry-II	3+1



ENG-1207	English-II (Communication Skills)	3+0
ISL-1212	Islamic Studies/Ethics	2+0
SOC-1221	Medical Sociology	2+0
Total Credit Hours		19
3rd Semester		
Course Code	Subject	Cr. Hr.
BSOT-2301	Pathology-I	2+1
BSOT-2302	Pharmacology-I	3+1
BSOT-2303	Microbiology-I	3+1
BSOT-2304	Emergency Medicine	3+1
ENG-2307	English-III (Technical Writing & Presentation Skills)	3+0
Total Credit Hours		18
4th Semester		
Course Code	Subject	Cr. Hr.
BSOT-2401	Pathology-II	2+1
BSOT-2402	Pharmacology-II	3+1
BSOT-2403	Microbiology-II	3+1
BSOT-2404	Critical Care	3+1
ARA-2401	Arabic	3+0
Total Credit Hours		18
5th Semester		
Course Code	Subject	Cr. Hr.
BSOT-3501	Operation Theater Equipment & Instruments-I	2+1
BSOT-3502	Anesthesia & its techniques	3+1

BSOT-3503	Operation Theater Technology-I	2+1
BSOT-3504	Applied Physics & Engineering Sciences	2+1
BSOT-3505	Epidemiology	2+0
BSOT-3506	Clinical Practicum-I	0+3
Total Credit Hours		18
6th Semester		
Course Code	Subject	Cr. Hr.
BSOT-3601	Operation Theater Equipment & Instruments-II	2+1
BSOT-3602	Operation Theater Technology-II	2+1
BSOT-3603	Suture Materials	2+1
BSOT-3604	Infection Control	2+1
STA-3620	Biostatistics	3+0
Total Credit Hours		15
7th Semester		
Course Code	Subject	Cr. Hr.
BSOT- 4701	Medical & Surgical Emergencies in OT	2+1
BSOT-4702	Antiseptic Solutions & Fluids	3+1
BSOT-4703	Clinical Practicum-II	0+3
BSOT-4704	Research Methodology	2+0
BSOT-4705	Instruments for Elective Procedures	2+1
Total Credit Hours		15
8th Semester		
Course Code	Subject	Cr. Hr.



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BSOT-4801	Pre & Post-operative Assessment & Management	2+1
BSOT-4802	Instruments for Emergency Procedures	2+1
BSOT-4803	Research Project	06
BSOT-4804	Biosafety and Biomedical ethics	3+0
Total Credit Hours		15



Student's Feedback

I am writing to provide feedback on my experience as a student in the Medical laboratory technology (MLT) program at MUST Mirpur. The blend of theoretical learning and clinical rotations has been invaluable in preparing me for real-world challenges. The library, research facilities, and simulation labs have played a significant role in enhancing my understanding and expertise in the field.

Muhammad Subhaan MLT (8th Semester)



Excellent program! I gained thorough knowledge and hands-on experience in Operation Theater Technology. The faculty were supportive, and the curriculum was well-structured. Clinical internships were incredibly valuable. The program prepared me well for my career, and I appreciate the opportunities for skill development and networking.

Ifrah Zaheer BS-OTT (8th Semester)





DEPARTMENT OF MICROBIOLOGY





Coordinator:

Dr. Tahseen Ismail

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E-mail: chairperson.micro@must.edu.pk

Coordinator's Message:

As we embark on another academic year in the Department of Microbiology, I am filled with both excitement and gratitude. It would be a great honor & pride to bring values to my Department. The field of microbiology is ever-evolving, presenting us with new challenges and opportunities that shape our understanding of the microscopic world and its vast impact on our lives and environment. Our department is dedicated to build on its strong foundation of excellence in research, teaching, and community engagement. Our faculty members remain committed to advancing knowledge through groundbreaking research, while our students are at the heart of our mission, driving innovation and discovery with their enthusiasm and dedication.

We are proud of the achievements we have made together and look forward to new milestones. Our ongoing projects reflect the diversity of interests within our field, from microbial genetics and infectious diseases to environmental

microbiology and biotechnology. Each of these areas contributes to our collective goal of addressing global challenges and improving human health. Our department thrives on collaboration and interdisciplinary engagement. We are working relentlessly as a team with perseverance towards goals of success. We will always keep our goals at the highest level to achieve remarkable outcomes and make significant contributions to science and society.

I look forward to accomplishing an unwavering commitment to excellence and for being an integral part of our department's success.



Program Mission:

To foster innovation and critical thinking, equipping professionals with the knowledge and skills necessary to address emerging challenges in microbiology and contributing to the betterment of global health and sustainability.

Program Vision:

"To lead in microbiological research and application, advancing innovations that enhance health, industry, and environmental sustainability for a better future."

Program Learning Objectives:

- To demonstrate a thorough understanding of the principles of microbiology, including the structure, function, and classification of microorganisms such as bacteria, viruses, fungi, and protozoa.
- To apply scientific methods to conduct microbiological research, including designing experiments, collecting and analyzing data, interpreting results, and presenting findings effectively.
- Develop critical thinking skills to evaluate scientific literature and experimental data.
- To proficiently use microbiological laboratory techniques and equipment to culture, identify, and study microorganisms.
- To utilize microbiological knowledge to address real-world problems, including those related to health, industry, and environmental issues.

- Understand the role of microorganisms in disease, biotechnology, and ecological systems.
- Demonstrate the ability to collaborate with colleagues, contribute to group projects, and respect diverse perspectives and expertise.
- Understand and adhere to ethical standards and professional practices in microbiology

Admission Criterion:	
F.Sc. Pre-medical or equivalent with minimum 50% marks.	

Scheme of Study for BS-Microbiology

Total Duration	8-12 semesters	
Minimum duration	8 Semesters	
Maximum duration	12 Semesters	
Total Credit Hrs.	133	
1 st Semester		
Course Code	Subject	Cr. Hr.
BMB-1101	Fundamental of Microbiology-I	2+1
BMB-1102	Human Physiology-I	3+1
BMB-1103	Biochemistry-I	3+1
BMB-1104	Biodiversity of Animals	2+0
ENG-1107	English-I (Functional English)	3+0
ISL-1112	Islamic Studies/Ethics	2+0
HQT-1128	Teaching of Holy Quran with Translation, Tajveed and Tafseer	01 (S/U) (Continued till 8 th semester)
Total Credit Hours		19



2nd Semester		
Course Code	Subject	Cr. Hr.
BMB-1201	Fundamental of Microbiology-II	2+1
BMB-1202	Human Physiology-II	3+1
BMB-1203	Biochemistry-II	3+1
COM-1205	Applications of Information and Communication Technologies (ICT)	2+1
ENG-1207	English-II (Expository Writing))	3+0
PS-1217	Ideology and Constitution of Pakistan	2+0
Total Credit Hours		19
3rd Semester		
Course Code	Subject	Cr. Hr.
BMB-2301	Biodiversity of Plants	2+0
BMB-2302	Clinical Bacteriology	2+1
BMB-2303	Microbial Diversity	3+0
BMB-2304	Civics and Community Engagement	2+0
MAT-2315	Quantitative Reasoning-I	3+0
SOC-2321	Sociology	2+0
Total Credit Hours		15
4th Semester		
Course Code	Subject	Cr. Hr.
BMB-2401	Food Microbiology	3+1
BMB-2402	General Immunology	2+0
BMB-2403	Environmental Microbiology	2+0
BMB-2404	Mycology	2+1
BMB-2405	Entrepreneurship	2+0

BMB-2406	History	2+0
STA-2420	Quantitative Reasoning-II	3+0
Total Credit Hours		18
5th Semester		
Course Code	Subject	Cr. Hr.
BMB-3501	General Virology	3+0
BMB-3502	Introductory Pharmacology	3+0
BMB-3503	Microbial Genetics	3+1
BMB-3504	Parasitology	2+1
BMB-3505	Molecular Biology	2+1
Total Credit Hours		16
6th Semester		
Course Code	Subject	Cr. Hr.
BMB-3601	Research Methodology	2+0
BMB-3602	Epidemiology	3+0
BMB-3603	Antimicrobial Agents & Chemotherapy	3+1
BMB-3604	Soil Microbiology	2+1
BMB-3605	Fermentation Technology	2+0
BMB-3606	Biosafety & Risk Management	2+0
Total Credit Hours		16
7th Semester		
Course Code	Subject	Cr. Hr.
BMB- 4701	Bioremediation	2+0
BMB-4702	Fresh Water Microbiology	2+0
BMB-4703	Food Preservation Technology	2+1
BMB-4704	Industrial Microbiology	3+0
BMB-4705	Internship	0+3



BMB-4706	Bioethics	2+0
Total Credit Hours		15
8th Semester		
Course Code	Subject	Cr. Hr.
BMB-4801	Infectious waste management	2+0
BMB-4802	Nano biotechnology	2+1
BMB-4803	Marine Microbiology	2+0
BMB-4804	Bioinformatics	3+1
BMB-4805	Public Health	1+0
BMB-4806	Capstone Project	0+3
Total Credit Hours		15



Student Feed Back

As a microbiology student, I am incredibly impressed with the quality of education and resources provided by the university. The faculty members of microbiology are not only highly knowledgeable but also genuinely passionate about their subjects, which greatly enhances the learning experience. The state-of-the-art laboratories and extensive research facilities have allowed me to gain hands-on experience and engage in meaningful scientific inquiry. The curriculum is well-structured and up-to-date with the latest advancements in microbiology, ensuring that we are well-prepared for both academic and industry challenges.



M. Maaz Microbiology 2nd Semester Session 2023-27

As a student of the Microbiology department, I would like to share my thoughts on my experience so far. The quality of education provided is commendable. The faculty members are knowledgeable, approachable, and consistently make complex concepts easier to understand. The department also provides ample opportunities for students to participate in research activities, which has been a valuable part of my academic journey. The lab sessions are particularly insightful, helping to solidify our understanding through hands-on experience.



Erij Fatima Microbiology 2nd Semester Session 2023-27



DEPARTMENT OF Human Nutrition & Dietetics





Coordinator:

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Message from Coordinator:

Welcome to the Department of Human Nutrition and Dietetics. As the Head of Department at Mirpur University of Science and Technology (MUST), Mirpur. I am delighted to introduce you to our vibrant community of students, academics, and professionals dedicated to advancing the science and practice of nutrition and dietetics. Our department offers a comprehensive range of undergraduate program that equip students with the knowledge, skills, and expertise to succeed in this dynamic field. Our curriculum is designed to foster critical thinking, creativity, and innovation, preparing graduates for careers in healthcare, research, industry, and beyond. Our team of experienced academics and researchers are passionate about teaching and mentoring, providing a supportive and inclusive learning environment that encourages students to reach their full potential. Through our research, we aim to address the complex challenges facing society, from preventing diet-related diseases in promoting sustainable food systems.

Join us on this exciting journey and discover how you can make a positive impact on people's lives through the power of nutrition and dietetics.

I look forward to welcoming you to our department!



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Faculty Members of Human Nutrition and Dietetics

Program Mission

“The program BS in Human Nutrition & Dietetics aims to serve the community through promoting academically and culturally diverse environment based on improved nutrition status through judicious intake of food, thus increased awareness about improved food choices at national as well as international level”

Program Vision

“Promoting wellness through evidence-based personalized nutrition”

Program Learning Objectives:

BS in Human Nutrition & Dietetics is a comprehensive course; encompassing the understandings what a body wants and what it needs on certain health parameters. Its diversity of delivering practical knowledge is focusses towards:

- Critical evaluation of food through nutrition, dietetics and research
- People management- learning to interact with patients and students
- Real time industry association with dieticians and clinicians
- Application of customized advanced diet therapy
- Fraternity interactions with professionals at research projects and conferences
- Finding a seamless integration between medicine, chemistry and food to nourish the body and treat ailments.



Scheme of Study BS-Human Nutrition and Dietetics Program

Total credit Hours	134
Total Duration	8-12 Semesters

1st Semester		
Course Code	Subject	Cr. Hr.
HND-1101	Fundamentals of Human Nutrition	3+0
HND-1102	Essentials of Food Science & Technology	2+1
HND-1103	Human Physiology-I	3+1
HND-1104	Anatomy & Histology	2+1
ENG-1107	English-I (Functional English)	3+0
CHE-1104	Introductory Biochemistry	2+1



HQT-1128	Teaching of Holy Quran with Translation Tajveed and Tafseer	01 (S/U) (Continue till 8 th semester)
Total Credit Hours		20
2nd Semester		
Course Code	Course Title	Cr. Hr.
HND-1201	Macronutrients in Human Nutrition	3+0
HND-1202	Food Safety and Quality Management	2+0
HND-1203	Human Physiology-II	3+1
ISL-1212	Islamic Studies/Ethics	2+0
ENG-1207	English-II (Expository Writing)	3+0
PS-1117	Ideology and Constitution of Pakistan	2+0
Total Credit Hours		16
3rd Semester		
Course Code	Subject	Cr. Hr.
HND-2301	Micronutrients in Human Nutrition	3+0
HND-2302	Introductory Molecular Genetics	2+1
HND-2303	General Pharmacology	3+0
HND-2304	Food Microbiology	2+1
MAT-2315	Quantitative Reasoning-I	3+0
COM-1105	Applications of Information and Communication Technologies (ICT)	2+1
Total Credit Hours		18
4th Semester		
Course Code	Subject	Cr. Hr.
HND-2401	Nutrition through the Life Cycle	3+0
HND-2402	Food Analysis	1+2

HND-2403	Civics and Community Engagement	2+0
HND-2404	Entrepreneurship	2+0
SOC-1221	Nutrition Through Social Protection	3+0
STA-2420	Quantitative Reasoning-II	3+0
Total Credit Hours		16
5th Semester		
Course Code	Subject	Cr. Hr.
HND-3501	Dietetics-I	2+1
HND-3502	Nutrition & Psychology	3+0
HND-3503	Assessment of Nutritional status	2+1
HND-3504	Meal Planning & Management	2+1
HND-3505	General Pathology	2+1
HND-3506	Food & Drug Laws	2+0
Total Credit Hours		17
6th Semester		
Course Code	Subject	Cr. Hr.
HND-3601	Dietetics-II	2+1
HND-3602	Functional Foods & Nutraceuticals	3+0
HND-3604	Sports Nutrition	2+1
HND-3605	Infants & Young Children Feeding	2+1
HND-3606	Clinical Biochemistry	1+2
Total Credit Hours		15
7th Semester		
Course Code	Subject	Cr. Hr.
HND-4701	Dietetics-III	2+1
HND-4702	Research Methods on Nutrition	3+0
HND-4703	Nutritional Practices in Clinical Care	2+1
HND-4704	Internship/Project	0+3
Elective Group (Minimum Two Subjects of Total 05 Credit Hours)		
HND-4705	Drug Nutrient Interaction	3+0



HND-4706	Nutritional Immunology	2+0
HND-4707	Food Chemistry	2+0
HND-4708	Preventive Nutrition	3+0
HND-4709	Food Service Management	3+0
HND-4710	Nutritional Deficiency Disorders	2+0
Total Credit Hours		17
8th Semester		
Course Code	Subject	Cr. Hr.
HND-4801	Capstone Project	0+3
HND-4802	Metabolism of Nutrients	2+0
HND-4803	Nutrition in Emergencies	3+0
HND-4804	Nutritional Education & Awareness	2+0
Elective Group (Minimum Two Subjects of Total 05 Credit Hours)		
HND-4805	Food Toxin and Allergies	3+0
HND-4806	Global Food Issues	3+0
HND-4807	Food Supplement	2+0
HND-4808	Nutrition Policies & Programs	2+0
HND-4809	Nutrition Epidemiology	2+0
Total Credit Hours		15



Students' Messages

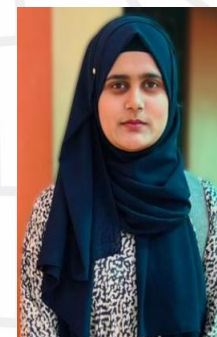
I am Wajahat Hassan, and I am incredibly proud to be pursuing a degree in Human Nutrition and Dietetics at Mirpur University of Science and Technology (MUST). It's exciting to be part of a field that has such a significant impact on people's lives. I chose this institution because of its accreditation with relevant bodies and well experienced faculty that used to support its deserving students and nourishes them well to attain their heights.

Wajahat Hassa Human Nutrition & Dietetics (8th Semester)



I, Khadija Zafar have had an honor of doing my Bachelors discipline in Human Nutrition and Dietetics from Faculty of Health and Medical Sciences Mirpur University of Science and Technology (MUST). The environment has absolutely flawless learning with well-equipped laboratories, well experienced faculty, and disciplined students. I have learned a lot, and I am thankful to my teachers for their Guidance and also to the institute for having such faculty and atmosphere. I am very happy for choosing this field and it's my pride.

Khadija Zafar Human Nutrition & Dietetics (6th Semester)





DEPARTMENT OF
Askson College of
Pharmacy





Principal:

Dr. Kashif Sohail

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Principal's Message:

Akson College of Pharmacy was established as "College of Pharmacy" in 2011 keeping in view the pivotal role of pharmacy professionals in the health system. A pharmacist is the only resourced person who is in a unique position of exercising complete drug expertise and its applications. The Pharmacist plays a key role in the Health Care System of the country, and he is an important member of the Health Care Team.

Akson College of Pharmacy provides a convenient scientific and practical learning environment and adopts a well-designed study plan for Doctor of Pharmacy according to the Pharmacy Council of Pakistan (PCP). As an institution for health professionals which is committed to rear up graduates in a competitive, learning, and professional environment, our mission is to be recognized nationally and internationally in pharmaceutical education, research, and civic engagements. So far nine batches have been passed out from Akson College of Pharmacy and are serving communities locally and internationally in different fields of pharmacy. We aim to accomplish our goals by conducting

competitive clinical, basic, social, and administrative science research under a team of dedicated faculty and professional staff. Multiple job opportunities are available for graduates in the public and private sectors in different fields of pharmacy. I encourage you to join our department as a student and learn all the modern tools and skill sets required to become a successful pharmacist.



Faculty Members

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Program’s Mission

“To provide quality pharmacy education & research that contributes significantly to improve health care system of the society, through intra disciplinary approach.”

Program’s Learning Objectives

- To provide comprehensive pharmacy education to cope the challenges of pharmaceutical care of our health apparatus.
- To produce quality pharmacists capable of steering the helm of affairs of our pharmaceutical industry.
- To foster an environment that enables graduates to acquire knowledge, analytical skills, problem solving attitude and ethical values necessary to enter pharmacy practice and provide patient centered pharmacy services.
- To promote collaboration with other health professions to materialize the concept of rational and cost-effective drug use for health promotion and illness prevention of the society.
- To educate the community about misuse/mishandling/compliance of medicine through various civic engagement modules.



Eligibility Criteria

F.Sc (Pre- Medical) or equivalent with minimum 60% marks

Scheme of Studies for Pharm. D.

Title of Degree	Pharm. D. (Doctor of Pharmacy)
Total Duration	10-16 semesters
Minimum duration	10 Semesters
Maximum duration	16 Semesters
Total Credit hours	199 Credit Hours

1st Professional Pharm-D.		
1st Semester		
Course Code	Subject	Cr. Hr.
HQT 128	Holy Quran with Translation, Tajveed and Tafseer	01 (S/U) Continued till 10 th semester
ENG 300	English-A (Functional English)	2



PHARM 310	Pharmaceutics-IA (Physical Pharmacy)	3+1
PHARM 311	Pharmaceutical Chemistry-IA (Organic)	3+1
PHARM 312	Pharmaceutical Chemistry-IIA (Biochemistry)	3+1
PHARM 313	Physiology-A	3+1
PHARM 314	Anatomy and Histology	3+1
Total Cr. Hr		23
2nd Semester		
Course Code	Subject	Cr. Hr.
ENG 301	English-B (Communication and Writing skills)	4
PHARM 315	Pharmaceutics-IB (Physical Pharmacy)	3+1
PHARM 316	Pharmaceutical Chemistry-IB (Organic)	3+1
PHARM 317	Pharmaceutical Chemistry-IIB (Biochemistry)	3+1
PHARM 318	Physiology-B	3+1
Total Cr. Hr		20
2nd Professional Pharm-D.		
3rd Semester		
Course Code	Subject	Cr. Hr.
IS 402	Islamic Studies /Ethics	3
PHARM 410	Pharmaceutics-IIA (Dosage Forms Science)	3+1
PHARM 411	Pharmaceutics-IIIA (Pharmaceutical Microbiology and Immunology)	3+1
PHARM 412	Pharmacology and Therapeutics-IA	3+1
PHARM 413	Pharmacognosy-IA (Basic)	3+1
PHARM 414	Pharmacy Practice-IA (Pharmaceutical Mathematics)	3

Total Cr. Hr		22
4th Semester		
Course Code	Subject	Cr. Hr.
PS 403	Pakistan Studies	2
PHARM 415	Pharmaceutics-IIB (Dosage Forms Science)	3+1
PHARM 416	Pharmaceutics-IIIB (Pharmaceutical Microbiology and Immunology)	3+1
PHARM 417	Pharmacology and Therapeutics-IB	3+1
PHARM 418	Pharmacognosy-IB (Basic)	3+1
PHARM 419	Pharmacy Practice-IB (Bio-statistics)	3
Total Cr. Hr		21
3rd Professional Pharm-D.		
5th Semester		
Course Code	Subject	Cr. Hr.
PHARM 510	Pharmacy Practice-IIA (Dispensing Pharmacy)	3+1
PHARM 511	Pharmaceutical Chemistry-IIIA (Pharmaceutical Analysis)	3+1
PHARM 512	Pharmacology and Therapeutics-IIA	3+1
PHARM 513	Pharmacognosy-IIA (Advanced)	3+1
PHARM 514	Pathology	3+1
Total Cr. Hr		20
6th semester		
Course Code	Subject	Cr. Hr.
PHARM 515	Pharmacy Practice-IIB (Community, Social and Administrative Pharmacy)	3
PHARM 516	Pharmaceutical Chemistry-IIIB (Pharmaceutical Analysis)	3+1



PHARM 517	Pharmacology and Therapeutics-IIB	3+1
PHARM 518	Pharmacognosy-IIB (Advanced)	3+1
PHARM 519	Pharmacy Practice-III (Computer and Application in Pharmacy)	3+1
Total Cr. Hr		19
4th Professional Pharm-D.		
7th Semester		
Course Code	Subject	Cr. Hr.
PHARM 610	Pharmacy Practice-IVA (Hospital Pharmacy)	3
PHARM 611	Pharmacy Practice-VA (Clinical Pharmacy-I)	3+1
PHARM 612	Pharmaceutics-IVA (Industrial Pharmacy)	3+1
PHARM 613	Pharmaceutics-VA (Biopharmaceutics and Pharmacokinetics)	3+1
PHARM 614	Pharmaceutics-VIA (Pharmaceutical Quality Management)	3+1
Total Cr. Hr		19
8th Semester		
Course Code	Subject	Cr. Hr.
PHARM 615	Pharmacy Practice-IVB (Hospital Pharmacy)	3
PHARM 616	Pharmacy Practice-VB (Clinical Pharmacy-I)	3+1
PHARM 617	Pharmaceutics-IVB (Industrial Pharmacy)	3+1
PHARM 618	Pharmaceutics-VB (Biopharmaceutics and Pharmacokinetics)	3+1

PHARM 619	Pharmaceutics-VIB (Pharmaceutical Quality Management)	3+1
Total Cr. Hr		19
5th Professional Pharm-D.		
9th Semester		
Course Code	Subject	Cr. Hr.
PHARM 710	Pharmaceutics-VIIA (Pharmaceutical Technology)	3+1
PHARM 711	Pharmacy Practice-VIA (Advanced Clinical Pharmacy-II)	3+1
PHARM 712	Pharmacy Practice-VIIA (Forensic Pharmacy)	3
PHARM 713	Pharmacy Practice-VIIIA (Pharmaceutical Management and Marketing)	3
PHARM 714	Pharmaceutical Chemistry-IVA (Medicinal Chemistry)	3+1
Total Cr. Hr		18
10th Semester		
Course Code	Subject	Cr. Hr.
PHARM 715	Pharmaceutics-VIIB (Pharmaceutical Technology)	3+1
PHARM 716	Pharmacy Practice-VIB (Advanced Clinical Pharmacy-II)	3+1
PHARM 717	Pharmacy Practice-VIIB (Forensic Pharmacy)	3
PHARM 718	Pharmacy Practice-VIIIB (Pharmaceutical Management and Marketing)	3
PHARM 719	Pharmaceutical Chemistry-IVB (Medicinal Chemistry)	3+1
Total Cr. Hr		18

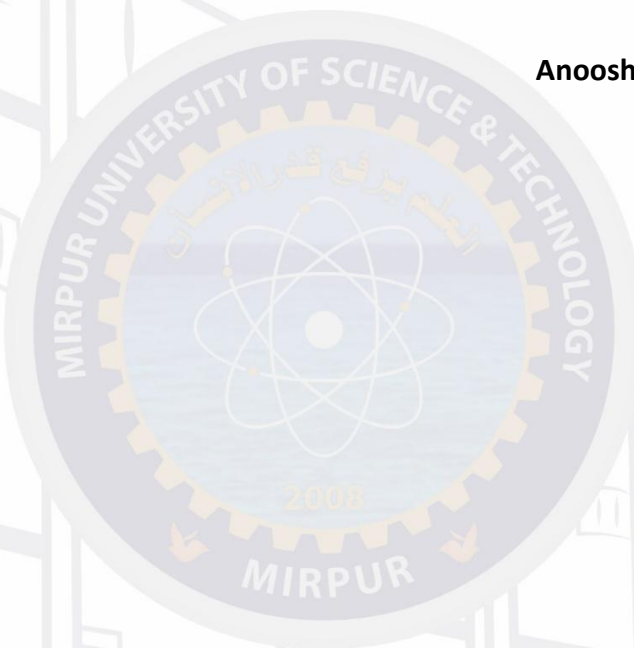


Student's Feedback:

Akson college of Pharmacy is Alma mater for my professional education. As a parent institution for my graduation, this is immense pleasure and honor for me to be here. Either educational activities or co-educational matters I am optimistic and enthusiastic that the time I am spending here will raise up the ante in both professional as well as personal skills and attitude for my bright future.



Anoocha Waseem, Pharm. D.,



MUST PALLANDRI





MUST Pallandri Coordinator:

Munawwar Hussain Quershi

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Message from Coordinator:

The role of higher education in the educational, economic, social and political development of a country cannot be ignored. Mirpur University of Science and technology (MUST) Mirpur since its inception in 2008, has been consistently striving for promoting quality higher education in the State of Azad Jammu and Kashmir. Hence, in this connection, MUST Mirpur took a lead role to establish another campus at Pallandri of District Sudhanutti. The MUST Pallandri Campus was, thus, established vide Government Notification No. S.H.E/II/5766-74/2018 dated May 10, 2018, and was formally inaugurated by the President of Azad Jammu and Kashmir / Chancellor, MUST on July 30, 2018.

This is a unique matter of pride and honor that two new programs of BS-Forestry (four years) and BS-Tourism and Hospitality Management (four years) are started in MUST Pallandri Campus for the first time in the history of Azad Kashmir to provide technical education and equip the students to play their lead roles in developing and promoting highly important sectors of forestry and tourism in AJ&K. Later BS Education, BS Physics and BS International Relations were also started.

Later on, three regular lecturers were also appointed by MUST, Mirpur, each in departments of Forestry, BS-Elementary Education (four years), Tourism and Hospitality Physics and IR. We have also hired visiting lecturers to assist us in teaching allied courses. Alhamdulillah, The Campus is running successfully with collective and team efforts of the faculty and MUST Mirpur administration. I am quite confident and sure that the intake of students will increase in coming sessions. Currently, we have students from almost all the districts of AJ&K and are hoping for students to come from Pakistan in New Year as well, In Shah Allah.

Currently, the campus is established in premises of Hostel of Khan Muhammad Khan Post-graduate Boys College, Pallandri. However, a chunk of land of 523 kanal has been awarded by the Government of AJ&K about five kilometer away from the current location of the campus at Islampura on Baral road. The demarcation of the land has been completed with the active cooperation of District Administration and MUST, Mirpur. PC-I is in the process of formulation and approval by the Planning and Development of MUST, Mirpur.

I welcome all the students to be part of our campus and wish them a very pleasant, peaceful and productive stay here in the campus and have expectations from them to promote brotherhood, mutual



understanding and good relationships among the districts they come from, and the most important that focus on their studies and learning to enable them to serve for the nation with dedication, hardworking and commitment. May Allah bless you with the brightest success in your future.



DEPARTMENT OF FORESTRY



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BS Forestry

The territory of Azad Jammu and Kashmir extends over an area of 3.286 million acre; whereas approximately 43% of the total land mass is under the legal control of the Forest Department. The territory is blessed with a variety of climatic, edaphic and topographic factors that make the conditions most conducive and suitable for growth of forests in the area. Hence, we have rich variety of natural forests extending from xerophytic conditions in the South and Alpine pastures in the North. Famous tree species of conifer tree like *Pinus Rox burghii* (Chir pine), *Pinus wallichiana* (Kail), *Cedrus deodara* (Deodar), *Picea smithiana* (Spruce), and *Abies pindrow* (Fir) are found in the territory of AJ&K. These forests are a major source of meeting requirements of timber, firewood, fodder and sustenance of people of AJ&K. These forests provide a variety of valuable goods and services; serve as “water towers,” mitigate global warming by the process of carbon sequestration, harbor biological and genetic diversity and gene pool, provide refuge and food to wildlife, protect fragile watersheds of the area, and provide healthy and pleasant environment, add to the scenic beauty and help promoting tourism in the area. Hence, meeting challenges of conservation and promotion of these forests, the state needs qualified and trained manpower. There is only Institute, namely “Pakistan Forest Institute” based at Peshawar where students are trained and are awarded degrees at B.Sc. and M.Sc. Forestry level, who render their services in their respective provincial forest departments after successful completion of the degree programs. Therefore, establishment of department of forestry in AJ&K under MUST is highly justified and is the need of

the hour. This will fulfill the growing needs of trained manpower, provide opportunities to the students to equip themselves with forestry and tourism knowledge and training and be able to render their services in protection and conservation of the forests of AJ&K. The Department has a mandate to carry out both teaching and research to address the problems of Conservation of Natural Resources and Protection of Environment, with special emphasis on problems such as deforestation and proper management of natural Forest resources of the country. The Department is currently offering the degrees of B.S Forestry (four years).

Program Mission

To improve the quality of life through providing support of effective research and trained manpower for scientific management of forests, rangelands, wildlife, watersheds, environment protection, and biodiversity conservation in Pakistan.

Program Educational Objectives (PEOs)

- 1.To impart higher education at graduation level in the field of Forestry & Range Management, Watershed and Wildlife Management.
- 2.To supervise post graduate students in planning, conduct, and evaluation of thesis research as part of their degree programs.
- 3.To develop closer linkages with line departments and research organizations for mutual collaboration in research/development activities of natural resource conservation and improvement
- 4.To promote awareness among students, researchers, policy makers and community in general about natural resource conservation and management through publishing articles and



organizing seminars/workshops on the subjects related to natural resource management.

Program Learning Objectives (PLOs)

- 1. Promotion of farm forestry in the area to reduce pressure on native forest through farm forestry projects and research
2. To understand the significance of Non-Wood Forest Produce (NWFP) to local communities through various marketing activities.
3. Our graduates have sound knowledge of Forestry, they easily get jobs in Government Organizations as well as in private and international NGOs.
4. The graduates can also appear in competitive examinations e.g., Azad Kashmir Public Service Commission and Federal Public Service Commissions for administrative and academic positions.

Admission Criterion:

Students of F.Sc. pre-engineering/ F.Sc. Premedical with at least 45% marks is considered eligible to apply.

Degree Requirements:

Student with 2.5 CGPA is eligible for degree.

Scholarships Offered:

- 1. Need based scholarship. 2. HBL foundation Scholarship 3. Scottish Scholarship 4. MUST scholarship 5. Merit based scholarship.

Duration:

It is a 4 years degree program with 8 semesters and consisting of 123 credit hours inclusive of 37 credit hours for lab/field tours; 75 (47-28) credit hours for core courses; 09 credit hours for

Elective courses; 04 credit hours for internship report; and a 04 credit hours course for project.

Scheme of Study (BS FORESTRY)

Table with 3 columns: Course Code, Title, Cr.Hr. It is divided into three semesters: First Semester, Second Semester, and Third Semester, each with a total credit hour summary.



FRST-2304	Forest Ecology	3 (3-0)
FRST-2305	Forest Entomology	3 (2-1)
FRST-2306	Forest Taxonomy	3 (2-1)
FRST-2307	Forest Accounts and Procedure	2(2-0)
	Total	19
FOURTH SEMESTER		
Course Code	Title	Cr.Hr
FRST-2402	Biodiversity and Climate Change	3 (2-1)
FRST-2403	Participatory Forestry	3 (2-1)
FRST-2404	Introduction to GIS Remote Sensing	3 (2-1)
FRST-2405	Integrated Land Use Management Systems	3 (2-1)
FRST-2406	Forestry Extension	2 (2-0)
FRST-2407	Study Tour of Forest Types I: Pak,AJK &GB	2 (0-2)
	Total	19
FIFTH SEMESTER		
Course Code	Title	Cr.Hr
FRST-3502	Forest Policy and Law	3 (3-0)
FRST-3503	Wood Science and Technology	3 (2-1)
FRST-3504	Forest Survey and Leveling	3 (2-1)
FRST-3505	Silviculture-I	2 (2-0)
FRST-3506	Forest Engineering II	2 (1-1)
FRST-3507	Study Tour of Forest Types II: Pak, AJK & GB	2(0-2)
	Total	18
SIXTH SEMESTER		

Course Code	Title	Cr.Hr
FRST-3602	Watershed Management	3 (2-1)
FRST-3603	Range Management	3 (2-1)
FRST-3604	Wildlife and Fisheries Management	3 (2-1)
FRST-3605	Forest Biometrics	3 (2-1)
FRST-3606	Non-Wood Forest Products	2 (2-0)
FRST-3607	Study Tour (Forest Management)	1 (0-1)
	Total	18
SEVENTH SEMESTER		
Course Code	Title	Cr.Hr
FRST-4702	Forest Resource Economics	2(2-0)
FRST-4703	Silviculture-II	3 (2-1)
FRST-47--	03 Elective Courses	09
	Total	16
EIGHT SEMESTER		
Course Code	Title	Cr.Hr
FRST-4802	Forest Management Plan – II	4(0-4)
FRST-4803	Research Methods and Scientific Writing	4(4-0)
FRST-4804	Research Project / Internship / Special Paper	4(0-4)
FRST-4805	General Viva	S / NS
	Total	15

LIST OF SPECIALIZATION COURSES

One of the following specializations may be opted for, subject to approval of concerned forestry institution/university:

Code	Course	Cr.Hr
1)	Forest Management and Conservation	9 (6-3)



FRST-4704	Forest Inventory & Analysis	3 (2-1)
FRST-4705	Conservation Forest Management	3 (2-1)
FRST-4706	Production Forest Management	3 (2-1)
2) Watershed Management		9 (6-3)
FRST-4707	Soil Conservation Techniques	3 (2-1)
FRST-4708	Forest Meteorology	3 (2-1)
FRST-4709	Forest and Range Hydrology	3 (2-1)
Range Management		9 (7-2)
FRST-4710	Range Vegetation Analysis	3 (2-1)
FRST-4711	Livestock Nutrition and Grazing Management	3 (2-1)
FRST-4712	Drought Management in Rangelands	3 (3-0)
GIS and Remote Sensing Techniques		9 (3-6)
FRST-4713	Digital Cartography	3 (1-2)
FRST-4714	Land Use Planning	3 (1-2)
FRST-4715	Forest / Range Assessment and Monitoring	3 (1-2)
Participatory Forest Management		9 (7-2)
FRST-4716	Community Based Forestry	3 (3-0)
FRST-4717	Participatory Forest Management Planning	3 (2-1)
FRST-4718	Participatory Forest Assessment	3 (2-1)
Sericulture		9 (5-4)
FRST-4719	Silkworm Rearing	3 (2-1)
FRST-4720	Silk Seed and Cocoon Technology	4 (2-2)
FRST-4721	Moriculture	2 (1-1)
Wood Science and Technology		9 (5-4)
FRST-4722	Wood Harvesting Techniques	2 (1-1)

FRST-4723	Wood Structure and Identification	2 (1-1)
FRST-4724	Wood Testing and Processing	2 (1-1)
FRST-4725	Wood Based Products	3 (2-1)
Wildlife and Fisheries Management		9 (9-0)
FRST-4726	Wildlife Biology and Ecology	3 (3-0)
FRST-4727	Wildlife Management and Research	3 (3-0)
FRST-4728	Wildlife Policies, Laws and Administration	3 (3-0)
3) Agro Forestry		9 (7-2)
FRST-4729	Agro Forestry Systems	3 (3-0)
FRST-4733	Farm Forestry Management	3 (2-1)
FRST-4731	Marketing of Agro Forestry Products	3 (2-1)
4) Forest Engineering and Logging		9 (7-2)
FRST-4732	Forest Machinery	3 (3-0)
FRST-4733	Forest Logging	3 (2-1)
FRST-4734	Applied Mechanics of Forestry	3 (2-1)
5) Environmental Forestry		9 (7-2)
FRST-4735	Environment and Forestry	2 (2-0)
FRST-4736	Environmental Pollution and Mitigation	3 (3-0)
FRST-4737	Environmental Impact Assessment	2 (1-1)
FRST-4738	Environmental Policies and Laws	2 (1-1)
6) Forestry and Climate Change		9 (7-2)
FRST-4739	Forest, Carbon and Climate Change	3 (2-1)
FRST-4740	Trends in Forestry and Climate Change	3 (3-0)
FRST-4741	Tree Eco-Physiology	3 (2-1)
7) Non-Wood Forest Products		9 (7-2)



FRST-4742	Production Technology of Medicinal Plants / Pharmacognocny	3 (3-0)
FRST-4743	Sericulture and Apiculture Techniques	3 (2-1)
FRST-4744	Minor Forest Products	2 (1-1)
FRST-4745	Economics of Non Wood Forest Products	1 (1-0)



Students' Message

I am really pleased I choose the MUST Pallandri Campus. The Environment is superb. The academic courses are interesting and stimulating. On the top of that highly qualified and experienced faculty make the learning really enjoyable. In my view university campus can compete with any other educational institute in country. The university is my pride and passion.



M. Hamza Naseer
BS Forestry
2018-22
6th Semester

I am fully satisfied with my studies at MUST Pallandri Campus. The Faculty is qualified and experienced. The environment is inviting and neat and clean. Financial help is available in form of merit scholarship.



Usama Shoukat
BS Forestry
2018-22
6th Semester

The background features a network of red lines and nodes, a white paperclip icon, a yellow rounded rectangle on the left, and various geometric patterns of dots and lines in shades of purple and orange. A large red diagonal shape is also present.

DEPARTMENT OF PHYSICS



BS Physics Program at MUST Pallendri

The mission and scheme of study of BS Physics program is similar as mentioned at page (235)

Faculty Members of Physics Department at MUST Pallendri

Dr. Tariq Aziz
PhD
Assistant Professor
Ex-Coordinator
Tariqaziz18@hotmail.com

Miss Shamaila Akbar
PhD in Progress
Lecturer
Coordinator
shamaila.akbar@must.edu.pk
k

Miss Yusra Zaki
MS Physics
Lecturer (visiting)
yusrazaki@must.edu.pk

Mr. Faizan Bashir
MS Mathematics
Lecturer (visiting)
faizanbashir@must.edu.pk

Students' Message

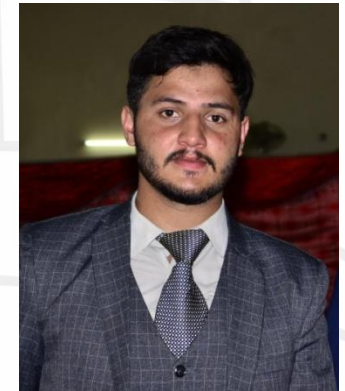
Graduating from the Physics Department at MUST Campus Pallandri has been transformative. Physics, a cornerstone of understanding the universe, instills critical thinking essential for diverse problem-solving. The supportive environment and expert guidance have not only honed my academic acumen but also enriched my personal growth. This department champions the significance of physics, offering abundant career prospects while fostering ethical values and analytical skills. I am proud to belong to a community that prioritizes holistic student development, acknowledging the pivotal role of physics in crafting individuals adept at navigating the complexities of the contemporary world.

Laiba Khurshid (Session 2020-2024)



The experience of graduating from the Physics Department at MUST Campus Pallandri has been profoundly wonderful. The Department stands out as a premier academic entity within the campus, dedicated to offering exceptional educational experiences. Beyond academic brilliance, the department places a strong emphasis on fostering the moral fabric of its students. Engaging activities are regularly organized to enhance students' confidence levels and cultivate critical thinking abilities. With this commitment to holistic development, I unequivocally affirm that the Physics Department stands as a beacon of excellence within the campus, shaping well-rounded individuals equipped for success in an ever-evolving world.

Ahsin Imtiaz (Session 2020-2024)







DEPARTMENT OF EDUCATION

Degree Program Offered

B.Ed. Elementary (4 years)



Elementary (4 years)

Introduction

The primary objective of the Department of Education within any community is to cultivate a cadre of well-qualified and proficient teachers. Teaching is considered a revered profession, requiring not only a mastery of subject matter but also a composed demeanor and a strong commitment to nation-building. The Department of Education endeavors to instill a teaching ethos in its students, expecting them to embrace the same enthusiasm that future educator must possess. The scheme of study undertaken has been designed according to the specified guidelines of HEC. Established in 2019, the Department of Education is located within the premises of Mirpur University of Science and Technology (MUST) Pallandri Campus, situated in Pallandri (AJ&K). For the past five years, the Department of Education has remained at the forefront of excellence, earning its reputation as a leading force within the Campus. Its primary aim is to develop an educational program that equips the younger generation with the requisite knowledge, skills, and attitudes to contribute effectively and adeptly to society and the environment.

Vision

To be a beacon of educational excellence, our vision is to create a transformative and student-centered department. We aspire to cultivate a dynamic learning environment that fosters intellectual curiosity, critical thinking, and a passion for lifelong learning. Through innovative pedagogy and research-driven

practices, we aim to empower our students to become compassionate leaders, trailblazers, and advocates for positive societal change.

Mission

To facilitate the process of learning through provision of quality education as a main tool and ensure development of effective communication skills with the ability to think objectively and develop a mind with curiosity coupled with sense of innovation and creativity. Inculcate human values and character traits in the students to make them competitive in the challenging field of cognitive science.

Objectives

- To facilitate students in the learning process to develop them professionally equipped.
- To develop the research culture among the students to be competitive.
- To emphasize inclusive aspects of education as a mean to reform society.
- To incorporate human and scientific approach towards teaching profession.





Scheme of Study B. Ed. Elementary

Admission Requirements

1. FA/F.Sc / A level or equivalent with minimum 2nd Div with no 3rd div in the academic career
2. FA/F.Sc / A level with school subjects.
3. The admission will be subjected to the provision of the character certificate from the last degree institution

1 st Semester			
Course Code	Course Title	Category	CH
ENG-1103	Functional English	GE	3(3+0)
QTR-1127	Exploring Quantitative Skills	GE	3(3+0)
ISL-0012	Islamic Studies	GE	2(2+0)
SOC-0021	Introduction to Sociology	GE	2(2+0)
EDU-1101	Child Development	MC	3(3+0)
EDU-1102	General Methods of Teaching	MC	3(3+0)
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	1
Total Credit Hours			17
2 nd Semester			
Course Code	Course Title	Category	CH
QTR-1228	Tools for Quantitative Reasoning	GE	3(3+0)
ENG-1207	Introduction to Expository Writing	GE	3(3+0)

URU-1222	Urdu	GE	2(2+0)
ARA-0001	Arabic	Com	3(3+0)
EDU-1201	Classroom Management	MC	3(3+0)
EDU-1202	Methods of Teaching Islamic Studies	MC	3(3+0)
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	S/U
Total Credit Hours			17
3 rd Semester			
Course Code	Course Title	Category	CH
ETRE-0008	Introduction to Entrepreneurship	GE	2(2+0)
ICT-2126	Application of Information and Communication Technologies	GE	3(2+1)
EDU-2101	Teaching Literacy Skills	MC	3(3+0)
EDU-2102	Teaching of Urdu	MC	3(3+0)
EDU-2103	Classroom Assessment	MC	3(3+0)
EDU-2104	Teaching of Mathematics	MC	3(3+0)
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	S/U
Total Credit Hours			17
4 th Semester			
Course Code	Course Title	Category	CH



SGC-2225	The Science of Global Challenges	GE	3(2+1)
CCE-2230	Civic and Community Engagement	GE	2(2+0)
ICP-2229	Ideology and Constitution of Pakistan	GE	2(2+0)
EDU-2201	Teaching of English	MC	3(3+0)
EDU-2202	Teaching Practice	MC	3(0+3)
EDU-2203	Teaching of Social Studies	MC	3(3+0)
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	S/U
Total Credit Hours			16

Notes: Exit will be available, and students will be given ADE subject to the university policy.

GE: General Education (30 Credit Hours)

MC: Major Courses (Minimum 33 Credit Hours in first four semesters)

Compulsory: Arabic and Holy Ouran with Translation. Tajveed and Tafseer (04 Credit Hours).

5 th Semester			
Course Code	Course Title	Category	CH
IR-3110	Introduction to International Relations	IDC	3(3+0)
EDU-3101	Curriculum Development	MC	3(3+0)
EDU-3102	Foundations of Education	MC	3(3+0)
EDU-3103	Educational Psychology	MC	3(3+0)

EDU-3104	Islamic System of Education	MC	3(3+0)
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	S/U

Total Credit Hours **15**

6 th Semester			
Course Code	Course Title	Category	CH
MC-3214	Introduction to Media Literacy	IDC	3(3+0)
EDU-3201	Contemporary Issues and Trends in Education	MC	3(3+0)
EDU-3202	Comparative Education	MC	3(3+0)
EDU-3203	Introduction to Guidance and Counseling	MC	3(3+0)
EDU-3204	Educational Technologies	MC	3(3+0)
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	S/U

Total Credit Hours **15**

7 th Semester			
Course Code	Course Title	Category	CH
ACC-4101	Arts Craft & Calligraphy	IDC	3(3+0)
EDU-4101	Educational Management and Leadership	MC	3(3+0)
EDU-4102	Research Methods in Education	MC	3(3+0)



EDU-4103	Long Term Teaching Practice/ Internship	MC	6
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	S/U

Total Credit Hours **15**

8th Semester

Course Code	Course Title	Category	CH
FM-4201	Financial Management	IDC	3(3+0)
EDU-4201	Inclusive Education	MC	3(3+0)
EDU-4202	School Management	MC	3(3+0)
EDU-4203	Test Development and Evaluation	MC	3(3+0)
EDU-4204	Capstone Project	MC	3(0+3)
HQT-0001	Holy Ouran with Translation. Tajveed and Tafseer	COM	S/U

Total Credit Hours **15**

Summary

General Education (GE)	30 Credit Hours
Major Courses (MC)	81
Inter Disciplinary Courses (IDC)	12 Credit Hours
Compulsory Courses	
1. Arabic	03
2. Holy Ouran with Translation. Tajweed and Tafseer	01
Total Credit Hours	127



Students' Message

As a recent graduate from the Education Department at MUST Campus Pallandri, I can confidently say that this department has been instrumental in shaping me into a confident, knowledgeable, and well-rounded individual. The positive environment, coupled with the support of highly knowledgeable and compassionate teachers, has nurtured my growth in both academic and personal aspects. The department offers high-quality education and numerous opportunities for career development while also emphasizing moral values and critical thinking. I am proud to have been part of a department that truly prioritizes the holistic development of its students.

Shamsa Kanwal (Session 2020-2024)



MUST Campus Pallandri is fast moving towards high-quality education. The Education Department is an outstanding department in the Campus, where high-quality education is provided. Alongside academic excellence, department also focuses on the moral development of students. Additionally, various activities are conducted to build confidence and critical thinking skills among students. Therefore, I confidently assert that the Education Department is an excellent department.

Mujtaba Javed (Session 2020-2024)





Faculty Profile

Mr. Munawwar Hussain Qureshi

PhD in Progress
Lecturer/Campus
Coordinator
munawwar.edu@must.edu.pk

Ms. Sana Aftab

M.Phil. in Education
Lecturer/Department
Coordinator sanaaftab.edu@must.edu.pk

Dr. Naila Ajmal

PhD in Islamic Studies
Senior Research Officer
naila.iis@must.edu.pk

Ms. Sara Younas

M.Phil. in Education
Lecturer (Visiting)
sarahkhan901@gmail.com

Mr. Fareed Nisar

M.Phil. in Applied
Linguistics
Lecturer (Visiting)
fareedsudhuzai@gmail.com



28 October 2023



Cultural Day 14 December 2023



Art, Craft and calligraphy 06 March 2021



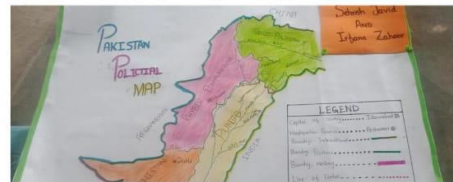
Project of Art and craft 08 March 2021



Black Day 16 December 2022



June 2023



Teaching of social Studies(project 2022)

Participation of Education Department in various activities at MUST Campus



Black Day (16 December 2022)



Teachers Day Celebration (2021)



Seminar organization team member (21 September 2023)



Flood Relief Camp (October 2022)



Blood donation Camp (2022)



**DEPARTMENT OF
TOURISM AND HOSPITALITY**



BS Tourism and Hospitality Management

The BS (4 Years) in Tourism and Hospitality Management Programme is designed to prepare students to assume responsibilities in the field of management, marketing and planning through a blend of coursework, placements and projects. This Bachelor's Degree Programme will no doubt help students to enhance their interpersonal skills and provide them with a strong background and marketable skills necessary to build a successful career in the Tourism and Hospitality field. The importance of tourism as a contributor to the national economy has led us to develop a Programme that is geared towards addressing and understanding the needs of this sector. We aim at providing high quality education to those wishing to pursue a career in the Tourism & Hospitality industry.

Program Mission

The School of Tourism & Hospitality Studies is dedicated to imparting quality higher education & training in the field of Tourism & Hospitality Management, to prepare globally competitive managers & professionals for Tourism & Hospitality industry.

Program Educational Objectives (PEOs)

1. To plan a progressive education training scheme and to impart, through training, both practical and theoretical knowledge of every phase of Tourism & Hospitality Management.
2. To set a high standard of knowledge and practice so that the status of the industry may be raised and catering popularized by offering attractive and progressive careers.

3. To develop a scientific attitude to management techniques and skills.
4. To inculcate habits of courtesy, discipline and hard work in the trainees and pride in the efficient accomplishment of tasks entrusted to them.
5. To impart an understanding of human nature so that the manpower can be directed to the best advantage for the Tourism & Hospitality Management.
6. To stimulate and inspire the trainee managers so that they develop an all-round personality and treat learning as a 'growth process.'
7. To impart, by example and education, devotion to Duty, Honesty, Integrity, Dignity of Labor and a willingness to serve others happily and cheerfully.
8. To provide a platform for exchanging ideas and information, to help the students establish habits of seeking knowledge as well as keeping abreast with the latest development in the field by extensive use of the library, attending seminars, discussion groups, etc.
9. To maintain a close liaison between teachers and students so that each student is given a full chance for development and growth

Program Learning Objectives (PLOs)

1. Students will demonstrate broad knowledge of and proficiency in the core functional and support areas of hospitality business.
2. Students will demonstrate specific competence in a variety of operational aspects within the hospitality industry.

3. Students will demonstrate effective written and oral communication skills.
4. Students will incorporate an understanding of ethical, social, and legal issues in reaching business-related decisions.
5. Students will creatively and critically apply their knowledge and technological skills in identifying and solving problems.
6. Students will have acquired the desire to engage in life-long learning, as demonstrated by ongoing personal and professional development.



A qualification in Tourism and Hospitality is your key to working in various areas across many sectors. You could consider working in positions such as:

- Restaurant Manager
- Café Manager

- Food and Beverage Manager
- Hotel Manager
- Conference and Event Manager
- Human Resource Manager
- Marketing Manager
- Resort Manager

Admission Criterion:

Higher secondary school certificate/ equivalent securing at least 45% marks are eligible to apply.

Selection Criterion:

Selection is made on the basis entry test and on the basis of previous qualification.

Scholarships Offered:

- | | |
|---------------------------|-----------------------------|
| 1. Need based scholarship | 4. Scottish Scholarship |
| 2. HBL foundation | 5. MUST scholarship |
| 3. Scholarship | 6. Merit based scholarship. |

Degree Requirements:

Student with 2.5 CGPA is eligible for degree.

Duration:

It is a 4 years degree program with 8 semesters.



Scheme of Study: BS Program

First Semester		
Course Code	Course Title	CH
BTH-111	Principles Of Management	3
BTH-112	English-I	3
BTH-113	Mathematics	3
BTH-114	Cultural History of Kashmir & Pakistan	3
BTH-115	Introduction to Tourism & Hospitality	3
BTH-116	Pakistan Studies	3
Total Credit Hours		18
Second Semester		
Course Code	Course Title	CH
BTH-121	English-II	3
BTH-122	Introduction to Computer	3
BTH-123	Introduction to Archaeology	3
BTH-124	Introduction to Psychology	3
BTH-125	Pak AJK Tourism Destination	3
BTH-126	Islamic Studies	3
Total Credit Hours		18
Third Semester		
Course Code	Course Title	CH
BTH-231	Fundamentals Of Statistics	3
BTH-232	HRM In Hospitality Industry	3
BTH-233	English-III Technical writing & Presentation skills	3
BTH-234	Sustainable Tourism	3

BTH-235	Cultural Tourism	3
BTH-236	Int. To Sociology	3
Total Credit Hours		18
Fourth Semester		
Course Code	Course Title	CH
BTH-241	Tourism Marketing	3
BTH-242	Hospitality Management Accounting	3
BTH-243	English-IV	3
BTH-244	Training and development	3
BTH-245	Public Relations	3
Total Credit Hours		15
Fifth Semester		
Course Code	Course Title	CH
BTH-351	Tourism Management	3
BTH-352	Hospitality Financial Management	3
BTH-353	Cost and inventory management	3
BTH-354	International Relations & Tourism	3
BTH-355	Tourism Marketing	3
Total Credit Hours		15
Sixth Semester		
Course Code	Course Title	CH
BTH-361	Principles of Accounting	3
BTH-362	Religious Tourism	3
BTH-363	Customer Relationship Management	3
BTH-364	Leadership in hospitality industry	3
BTH-365	Advertising & Promotion	3
Total Credit Hours		15



Seventh Semester

Course Code	Course Title	CH
BTH-471	Tourism Research Methods	3
BTH-472	Seminars in tourism and hospitality	3
BTH-473	Change management	3
BTH-474	Entrepreneurship	3
BTH-475	Internship	3
Total Credit Hours		15

Eighth Semester

Course Code	Course Title	CH
BTH-481	Digital marketing	3
BTH-482	Case studies in tourism	3
BTH-483	Advance Research Methods	3
BTH-484	Hospitality Project Design	6
Total Credit Hours		15

Field Visit of Tourism and Hospitality Management Department





MUST Pallandri Campus is committed to the highest standards of educational and other provision for its students and encourages students to provide the Institute with thoughtful and constructive feedback. MUST Pallandri Campus is a safe, professional and friendly learning environment. University has high quality teaching assessment and management of learning. Regular and reliable feedback on student progress, achievements and mechanisms for students to pursue grievances. Overall, responses from both the quantitative and qualitative data indicated moderate to high levels of satisfaction with the quality of teaching, instruction, and learning and student engagement.

MUST Pallandri Campus is a wonderful and magnificent institute. All the lecturers are helpful always. They are always a massive help and always help us further our ideas. It is interesting and I feel progressed further than I thought possible. With the help of the study skills I feel confident to take my career in a new direction. The university allowed me all the access I needed, and the small scale of the university provided a family atmosphere. I learn a lot from taking this Tourism and Hospitality course component. The goals of the course component are clear. Topics and assignments are relevant to my professional development. The Tourism and Hospitality course component is stimulating. It also contributed to my spiritual growth. Class participation is a meaningful part of the course component. The workload of this course component is realistic.



Asim Tariq (2021-25)
7th Semester



Arbab Jawead (2021-25)
7th Semester

DEPARTMENT OF INTERNATIONAL RELATIONS

Vision

Building on the existing strong foundation of academic excellence, knowledge and understanding, Department of International Relations will advance into the highest tier of the country's leading department, thereby expanding the scope of its reach and the strength of its world-wide impact.

Programs Offered

BS International Relations



BS IR (4 years)

The Department of International Relations is ought to be a diverse, inclusive scholarly community dedicated to bringing the benefits of its research, scholarship and creative activity, and educational excellence to global and local communities in ways that impact and positively change the world. We view the three traditional pillars of the public higher education mission; research, education, and service, as interdependent endeavors that continually enrich and inform each other. Ground breaking research, transformative educational experiences, and deeply engaged service to its communities will define the Department of International Relations' mission as a premier, research-intensive Department.

Objectives

1. The core objectives of the Department of International Relations are to enlighten students with the emerging trends in the discipline of International Relations.
2. To encompass the diverse issues in the Region, International Political Economy, Current World Politics, International Security and Foreign Affairs.
3. Students will demonstrate effective written and oral communication skills.
4. Moreover, to construct an intelligible perspective that enables students to contribute successfully in the future.

Eligibility Criteria

1. FA/F.Sc/A level or equivalent with minimum 2nd Div. With out 3rd division in the academic career
2. FA/F.Sc/A level with school subjects.



Faculty Members (IR)

Name

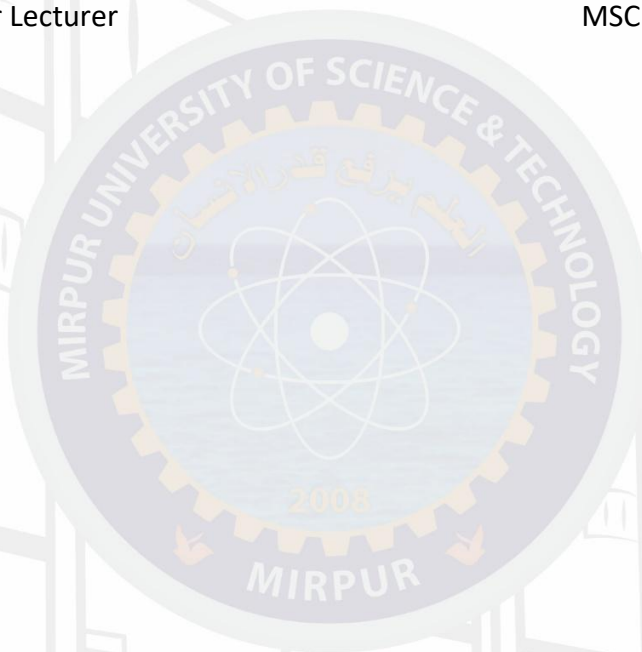
Mr. Javaid Iqbal
Mr. Basit Ishaq
Ms. Saman Khan
Mr. Zahid Hussain Shah

Designation

Lecturer
Lecturer
Junior Lecturer
Junior Lecturer

Qualification

Ph.D. (IR)
M.Phil. (IR)
BS (IR)
MSC (IR)





BS International Relations

Sem	Course Code	Course Title	CH
First	HQT-0001	Holy Quran: Translation, Tajweed, and Tafseer	S/U
	ENG-1103	Functional English**	3
	ICT-1126	Application of Information and Communication Technologies (ICT)**	3 (2+1)
	POS-1101	Introduction to Political Science	3
	BIR-1101	Introduction to International Relations	3
	BIR-1102	Evolution of State	3
	TOTAL		15
	Second	HQT-0001	Holy Quran: Translation, Tajweed, and Tafseer
ENG-1207		Expository English**	3
ISL-1212		Islamic Studies**	2
ICP-1229		Ideology and Constitution of Pakistan**	2
BIR-1203		International Relations Since 1648 –1945	3
BIR-1204		Approaches and Theories of International Relations	3
BIR-12--		General-I	3
TOTAL			16

Third	HQT-0001	Holy Quran: Translation, Tajweed, and Tafseer	S/U
	QTR-2327	Quantitative Reasoning-I**	3
	CCE-2330	Civics and Community Engagement**	2
	ART-2310	Arabic	2
	BIR- 2305	Regional and International Organizations	3
	BIR-2306	International Relations Since 1945–2000	3
	BIR-23--	General- II	3
TOTAL		16	
Fourth	HQT-0001	Holy Quran: Translation, Tajweed, and Tafseer	S/U
	QTR-2428	Quantitative Reasoning –II**	3
	EDS-2424	Everyday Science	3+0
	ETRE-2413	Entrepreneurship**	2
	BIR-2407	International Relations in New Millennium	3
	BIR-2408	Foreign Policy Analysis	3
	BIR-24--	General-III	3
TOTAL		17	
Fifth	HQT-0001	Holy Quran: Translation, Tajweed, and Tafseer	S/U
	BIR-3509	Strategic Studies	3
	BIR-3510	Globalization and International Relations	3
	BIR-3511	Research Methodology	3



PROSPECTUS 2024-25

	BIR-3512	Geo Political Structure of the World	3
	BIR-35--	General-IV	3
	TOTAL		15
Sixth	HQT-0001	Holy Quran: Translation, Tajweed, and Tafseer	S/U
	BIR-3613	Foreign Policy of Pakistan	3
	BIR-3614	Public International Law	3
	BIR-3615	International Security	3
	BIR-3616	International Politics of Human Rights	3
	BIR-3617	International Political Economy	3
	TOTAL		15
Seventh	HQT-0001	Holy Quran: Translation, Tajweed, and Tafseer	S/U
	BIR-4718	Comparative Foreign Policies of US, Russia, and China	3
	BIR-4719	Peace Studies	3
	BIR-4720	Diplomacy	3
	BIR-4721	Capstone Project-I****	3
	BIR-4722	Elective- I	3
	TOTAL		15
Eight	HQT-0001	Holy Quran: Translation, Tajweed, and Tafseer	S/U
	BIR- 4823	Comparative politics	3
	BIR- 4824	Conflict management and resolution	3

	BIR- 4825	Arms Control, Disarmament, and Nuclear Proliferation	3
	BIR-4826	Dynamics of Kashmir Conflict	3
	BIR-4827	Elective -II Or	3
	BIR-4828	Capstone project-II***	
	TOTAL		15
Summer	BIR- --29	Internship****	3

GRAND TOTAL	12 +1(NC) +4 + 28 = 45 Courses	127 Cr. Hrs
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FEE AND FUND STRUCTURE FOR FACULTY OF ENGINEERING AND TECHNOLOGY





Fee and Funds structure for Graduate, MS, PhD

B.Sc. Engineering 4-Years (Electrical, Mechanical, Computer System, Software, Power).									
Sr. #	Particulars	Semesters (Rs.)							
		1st	2nd	3rd	4th	5th	6th	7th	8th
(i)	One-Time Charges (Security Rs. 7,865 Refundable)	20,020	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	50,645	50,645	50,510	50,510	56,650	56,650	66,475	71,500
Total (for Subsidized Students)		70,665	50,645	50,510	50,510	56,650	56,650	66,475	71,500
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	70,740	70,740	73,955	73,955	77,310	77,310	80,225	80,225
Total (for Non-Subsidized Students)		141,405	121,385	124,465	124,465	133,960	133,960	146,700	151,725
B.Sc. Engineering 4 Years (Civil)									
Sr. #	Particulars	Semesters (Rs.)							
		1st	2nd	3rd	4th	5th	6th	7th	8th
(i)	One-Time Charges (Security Rs. 7,865 Refundable)	20,020	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	54,580	54,580	54,450	54,450	61,380	61,380	71,190	76,195



Total (for Subsidized Students)		74,600	54,580	54,450	54,450	61,380	61,380	71,190	76,195
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	70,740	70,740	73,955	73,955	77,310	77,310	80,225	80,225
Total (for Non-Subsidized Students)		145,340	125,320	128,405	128,405	138,690	138,690	151,415	156,420

B.S. Technology 4-Years (Electrical, Civil or Equivalent).

Sr. #	Particulars	Semesters (Rs.)							
		1st	2nd	3rd	4th	5th	6th	7th	8th
(i)	One-Time Charges (Security Rs. 7,865 Refundable)	20,020	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	38,190	38,190	42,900	42,900	48,190	48,190	56,845	61,135
Total (for Subsidized Students)		58,210	38,190	42,900	42,900	48,190	48,190	56,845	61,135

Fee and Funds structure for Graduate, MS, PhD

M.S./ M. Sc. (for All Engineering Programs) 2-Years

Sr. #	Particulars	Semesters (Rs.)			
		1st	2nd	3rd	4th
(i)	One-Time Charges (Security Rs.7,865 Refundable)	24,310	-	-	-
(ii)	Semester Dues/Tuition Fee	62,490	62,490	77,220	82,230
Total (for Subsidized Students)		86,800	62,490	77,220	82,230



Ph. D.								
Sr. #	Particulars	Semesters (Rs.)						
		1st	2nd	3rd	4th	5th	6th	
(i)	One-Time Charges (Security Rs.3,935 Refundable)	24,310	-	-	-	-	-	After the completion of Course work, for Research Work, an amount of Rs. 35,750/- per semester will be paid till the completion of the degree of each scholar
(ii)	Semester Dues/Tuition Fee	60,630	60,630	66,210	66,210	84,095	89,100	
Total (for Subsidized Students)		84,940	60,630	66,210	66,210	84,095	89,100	



FEE AND FUND STRUCTURE FOR FACULTY OF NATURE AND APPLIED SCIENCES





Fee and Funds structure for Under Graduate

B.S. (CS&IT) 4-Years									
Sr. #	Particulars	Semesters (Rs.)							
		1st	2nd	3rd	4th	5th	6th	7th	8th
(i)	One-Time Charges (Security Rs. 8,580 Refundable)	21,840	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	38,130	38,130	42,235	42,235	48,080	48,080	57,085	62,545
Total (for Subsidized Students)		59,970	38,130	42,235	42,235	48,080	48,080	57,085	62,545
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	43,820	43,820	48,295	48,295	52,670	52,670	56,965	56,965
Total (for Non-Subsidized Students)		103,790	81,950	90,530	90,530	100,750	100,750	114,050	119,510
B.S. (Mathematics, Chemistry, Physics & Equivalent) 4-Years									
Sr. #	Particulars	Semesters (Rs.)							
		1st	2nd	3rd	4th	5th	6th	7th	8th
(i)	One-Time Charges (Security Rs. 7,865 Refundable)	20,020	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	30,315	30,315	34,150	34,150	38,880	38,880	47,610	52,615
Total (for Subsidized Students)		50,335	30,315	34,150	34,150	38,880	38,880	47,610	52,615
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	40,185	40,185	44,270	44,270	48,280	48,280	52,220	52,220
Total (for Non-Subsidized Students)		90,520	70,500	78,420	78,420	87,160	87,160	99,830	104,835



B.S. Biotechnology (4-Years)

Sr. #	Particulars	Semesters (Rs.)							
		1st	2nd	3rd	4th	5th	6th	7th	8th
(i)	One-Time Charges (Security Rs. 8,580 Refundable)	21,840	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	33,075	33,075	31,045	31,045	35,345	35,345	43,280	47,830
Total (for Subsidized Students)		54,915	33,075	31,045	31,045	35,345	35,345	43,280	47,830
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	43,835	43,835	48,295	48,295	52,670	52,670	56,965	56,965
Total (for Non-Subsidized Students)		98,750	76,910	79,340	79,340	88,015	88,015	100,245	104,795

B.S. (Zoology) 4-Years

Sr. #	Particulars	Semesters (Rs.)							
		1st	2nd	3rd	4th	5th	6th	7th	8th
(i)	One-Time Charges (Security Rs. 7,865 Refundable)	20,020	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	31,500	31,500	35,330	35,330	40,300	40,300	49,030	54,030
Total (for Subsidized Students)		51,520	31,500	35,330	35,330	40,300	40,300	49,030	54,030
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	40,185	40,185	44,270	44,270	48,280	48,280	52,220	52,220
Total (for Non-Subsidized Students)		91,705	71,685	79,600	79,600	88,580	88,580	101,250	106,250



Fee and Funds structure for Under Graduate (Bridging Semester)

Bridging Semester/BS 5th (Chemistry, Physics, Math & Equivalent)					
Sr. #	Particulars	Semesters (Rs.)			
		1st	2nd	3rd	4th
(i)	One-Time Charges (Security Rs. 7,865 Refundable)	20,020	-	-	-
(ii)	Semester Dues/Tuition Fee	38,880	38,880	47,610	52,615
Total (for Subsidized Students)		58,900	38,880	47,610	52,615
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	48,280	48,280	52,220	52,220
Total (for Non-Subsidized Students)		107,180	87,160	99,830	104,835
Bridging Semester/ BS 5th Zoology)					
Sr. #	Particulars	Semesters (Rs.)			
		1st	2nd	3rd	4th
(i)	One-Time Charges (Security Rs. 7,865 Refundable)	20,020	-	-	-
(ii)	Semester Dues/Tuition Fee	40,300	40,300	49,030	54,030
Total (for Subsidized Students)		60,320	40,300	49,030	54,030
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	48,280	48,280	52,220	52,220
Total (for Non-Subsidized Students)		108,600	88,580	101,250	106,250



Fee and Funds structure for Graduate, MS, PhD

M.Phil (Sciences)								
Sr. #	Particulars	Semesters (Rs.)						
		1st	2nd	3rd	4th			
(i)	One-Time Charges (Security Rs.7,865 Refundable)	24,310						
(ii)	Semester Dues/Tuition Fee	56,050	56,050	70,070	75,070			
Total (for Subsidized Students)		80,360	56,050	70,070	75,070			
Ph. D.								
Sr. #	Particulars	Semesters (Rs.)						
		1st	2nd	3rd	4th	5th	6th	
(i)	One-Time Charges (Security Rs.3,935 Refundable)	24,310	-	-	-	-	-	After the completion of Course work, for Research Work, an amount of Rs. 35,750/- per semester will be paid till the completion of the degree of each scholar
(ii)	Semester Dues/Tuition Fee	60,630	60,630	66,210	66,210	84,095	89,100	
Total (for Subsidized Students)		84,940	60,630	66,210	66,210	84,095	89,100	



FEE AND FUND STRUCTURE FOR FACULTY OF SOCIAL SCIENCES AND HUMANITIES





Fee and Funds structure for Under Graduate

B.S (Economics, Islamic Studies, International Relation, Sociology, Media and Communication Studies & Equivalent)									
Sr. #	Particulars	Semesters (Rs.)							
		1st	2nd	3rd	4th	5th	6th	7th	8th
(i)	One-Time Charges (Security Rs. 3,935 Refundable)	16,090	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	29,370	29,370	33,050	33,050	37,395	37,395	44,380	49,385
Total (for Subsidized Students)		45,460	29,370	33,050	33,050	37,395	37,395	44,380	49,385
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	24,140	24,140	27,350	27,350	32,015	32,015	33,695	33,695
Total (for Non-Subsidized Students)		69,600	53,510	60,400	60,400	69,410	69,410	78,075	83,080
B.S English (4-Years)									
Sr. #	Particulars	Semesters (Rs.)							
		1st	2nd	3rd	4th	5th	6th	7th	8th
(i)	One-Time Charges (Security Rs. 4,290 Refundable)	17,550	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	32,040	32,040	36,055	36,055	40,795	40,795	48,415	53,875
Total (for Subsidized Students)		49,590	32,040	36,055	36,055	40,795	40,795	48,415	53,875
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	26,335	26,335	29,840	29,840	34,925	34,925	36,755	36,755
Total (for Non-Subsidized Students)		75,925	58,375	65,895	65,895	75,720	75,720	85,170	90,630



B.S Home Economics, Fashion and Design, & Fine Arts (4-Years)

Sr. #	Particulars	Semesters (Rs.)							
		1st	2nd	3rd	4th	5th	6th	7th	8th
(i)	One-Time Charges (Security Rs. 7,865 Refundable)	20,020	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	24,890	24,890	27,545	27,545	30,790	30,790	35,970	40,975
Total (for Subsidized Students)		44,910	24,890	27,545	27,545	30,790	30,790	35,970	40,975
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	22,975	22,975	26,040	26,040	29,100	29,100	32,165	32,165
Total (for Non-Subsidized Students)		67,885	47,865	53,585	53,585	59,890	59,890	68,135	73,140

B.S Education/ B.Ed. Elementary (4-years)

Sr. #	Particulars	Semesters (Rs.)							
		1st	2nd	3rd	4th	5th	6th	7th	8th
(i)	One-Time Charges (Security Rs. 3,935 Refundable)	16,090	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	25,170	25,170	28,385	28,385	32,175	32,175	38,290	42,850
Total (for Subsidized Students)		41,260	25,170	28,385	28,385	32,175	32,175	38,290	42,850
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	18,380	18,380	19,910	19,910	21,445	21,445	24,510	24,510
Total (for Non-Subsidized Students)		59,640	43,550	48,295	48,295	53,620	53,620	62,800	67,360



B.A. LLB (5-years)											
Sr. #	Particulars	Semesters (Rs.)									
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
(i)	One-Time Charges (Security Rs. 4,290 Refundable)	17,550	-	-	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	32,990	32,990	37,000	37,000	41,815	41,815	46,830	46,830	51,925	57,385
Total (for Subsidized Students)		50,540	32,990	37,000	37,000	41,815	41,815	46,830	46,830	51,925	57,385
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	22,040	22,040	22,835	22,835	24,580	24,580	28,085	28,085	31,585	31,585
Total (for Non-Subsidized Students)		72,580	55,030	59,835	59,835	66,395	66,395	74,915	74,915	83,510	88,970

Fee and Funds structure for Under Graduate (Bridging Semester)

Bridging Semester/ BS 5th (Islamic Studies & Equivalent)					
Sr. #	Particulars	Semesters (Rs.)			
		1st	2nd	3rd	4th
(i)	One-Time Charges (Security Rs. 3,935 Refundable)	16,090	-	-	-
(ii)	Semester Dues/Tuition Fee	37,395	37,395	44,380	49,385
Total (for Subsidized Students)		53,485	37,395	44,380	49,385



(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	32,015	32,015	33,695	33,695
Total (for Non-Subsidized Students)		85,500	69,410	78,075	83,080
Bridging Semester/ BS 5th (English)					
Sr. #	Particulars	Semesters (Rs.)			
		1st	2nd	3rd	4th
(i)	One-Time Charges (Security Rs.4,290 Refundable)	17,550	-	-	-
(ii)	Semester Dues/Tuition Fee	40,795	40,795	48,415	53,875
Total (for Subsidized Students)		58,345	40,795	48,415	53,875
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	34,925	34,925	36,755	36,755
Total (for Non-Subsidized Students)		93,270	75,720	85,170	90,630
Bridging Semester/ BS 5th (Education)					
Sr. #	Particulars	Semesters (Rs.)			
		1st	2nd	3rd	4th
(i)	One-Time Charges (Security Rs. 3,935 Refundable)	16,090	-	-	-
(ii)	Semester Dues/Tuition Fee	32,175	32,175	38,290	42,850
Total (for Subsidized Students)		48,265	32,175	38,290	42,850
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	21,445	21,445	24,510	24,510
Total (for Non-Subsidized Students)		69,710	53,620	62,800	67,360



Fee and Funds structure for Graduate, MS

B.Ed. Secondary (1.5-years)						
Sr. #	Particulars	Semesters (Rs.)				
		1st	2nd	3rd		
(i)	One-Time Charges(Security Rs. 3,935 Refundable)	16,090	-	-		
(ii)	Semester Dues/Tuition Fee	25,170	25,170	32,675		
Total (for Subsidized Students)		41,260	25,170	32,675		
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	18,375	18,375	19,905		
Total (for Non-Subsidized Students)		59,635	43,545	52,580		
B.Ed. Elementary (2.5-years)						
Sr. #	Particulars	Semesters (Rs.)				
		1st	2nd	3rd	4th	5th
(i)	One-Time Charges (Security Rs. 3,935 Refundable)	16,090	-	-	-	-
(ii)	Semester Dues/Tuition Fee	25,165	25,165	28,380	28,380	38,610
Total (for Subsidized Students)		41,255	25,165	28,380	28,380	38,610
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	18,380	18,380	19,910	19,910	21,450
Total (for Non-Subsidized Students)		59,635	43,545	48,290	48,290	60,060



M.Phil. Islamic Studies, English & Equivalent

Sr. #	Particulars	Semesters (Rs.)			
		1st	2nd	3rd	4th
(i)	One-Time Charges (Security Rs.3,935 Refundable)	20,380			
(ii)	Semester Dues/Tuition Fee	54,920	54,920	68,070	73,070
Total (for Subsidized Students)		75,300	54,920	68,070	73,070



FEE AND FUND STRUCTURE FOR FACULTY OF MUST BUSINESS SCHOOL





Fee and Funds structure for Undergraduate

B.B.A (4-Years)									
Sr. #	Particulars	Semesters (Rs.)							
		1st	2nd	3rd	4th	5th	6th	7th	8th
(i)	One-Time Charges (Security Rs. 3,935 Refundable)	16,095	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	42,110	42,110	46,660	46,660	51,940	51,940	58,920	63,930
Total (for Subsidized Students)		58,205	42,110	46,660	46,660	51,940	51,940	58,920	63,930
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	32,165	32,165	35,370	35,370	38,585	38,585	40,185	40,185
Total (for Non-Subsidized Students)		90,370	74,275	82,030	82,030	90,525	90,525	99,105	104,115

B.S Accounting & Finance, Banking & Finance, Commerce and Equivalent (4-Years)									
Sr. #	Particulars	Semesters (Rs.)							
		1st	2nd	3rd	4th	5th	6th	7th	8th
(i)	One-Time Charges (Security Rs. 3,935 Refundable)	16,090	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	29,370	29,370	33,050	33,050	37,390	37,390	42,405	47,410
Total (for Subsidized Students)		45,460	29,370	33,050	33,050	37,390	37,390	42,405	47,410



(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	24,140	24,140	26,550	26,550	28,950	28,950	32,165	32,165
Total (for Non-Subsidized Students)		69,600	53,510	59,600	59,600	66,340	66,340	74,570	79,575

Fee and Funds structure for Under Graduate (Bridging Semester)

Bridging Semester/ BS 5th Business Administration (BBA)					
Sr. #	Particulars	Semesters (Rs.)			
		1st	2nd	3rd	4th
(i)	One-Time Charges (Security Rs. 3,935 Refundable)	16,095	-	-	-
(ii)	Semester Dues/Tuition Fee	51,940	51,940	58,920	63,930
Total (for Subsidized Students)		68,035	51,940	58,920	63,930
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	38,585	38,585	40,185	40,185
Total (for Non-Subsidized Students)		106,620	90,525	99,105	104,115
Bridging Semester/ BS 5th Commerce & Equivalent					
Sr. #	Particulars	Semesters (Rs.)			
		1st	2nd	3rd	4th
(i)	One-Time Charges (Security Rs. 3,935 Refundable)	16,090	-	-	-
(ii)	Semester Dues/Tuition Fee	37,390	37,390	42,405	47,410
Total (for Subsidized Students)		53,480	37,390	42,405	47,410



(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	28,950	28,950	32,165	32,165
Total (for Non-Subsidized Students)		82,430	66,340	74,570	79,575

Fee and Funds structure for Graduate, MS

M. B. A (2-years Executive)					
Sr. #	Particulars	Semesters (Rs.)			
		1st	2nd	3rd	4th
(i)	One-Time Charges (Security Rs.3,935 Refundable)	16,095			
(ii)	Semester Dues/Tuition Fee	50,680	50,680	57,675	62,680
Total (for Subsidized Students)		66,775	50,680	57,675	62,680
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	33,695	33,695	35,370	35,370
Total (for Non-Subsidized Students)		100,470	84,375	93,045	98,050
M. B. A (1.5-years)					
Sr. #	Particulars	Semesters (Rs.)			
		1st	2nd	3rd	
(i)	One-Time Charges (Security Rs.3,935 Refundable)	16,095			
(ii)	Semester Dues/Tuition Fee	50,680	50,680	62,680	
Total (for Subsidized Students)		66,775	50,680	62,680	



(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	33,695	33,695	35,365
Total (for Non-Subsidized Students)		100,470	84,375	98,045

MS Management Sciences & Equivalent					
Sr. #	Particulars	Semesters (Rs.)			
		1st	2nd	3rd	4th
(i)	One-Time Charges (Security Rs.3,935 Refundable)	20,380	-	-	-
(ii)	Semester Dues/Tuition Fee	55,640	55,640	68,800	73,810
Total (for Subsidized Students)		76,020	55,640	68,800	73,810



FEE AND FUND STRUCTURE FOR FACULTY OF HEALTH AND MEDICAL SCIENCES





B.S. Human Nutrition & Dietetics (BHN)									
Sr. #	Particulars	Semesters (Rs.)							
		1st	2nd	3rd	4th	5th	6th	7th	8th
(i)	One-Time Charges (Security Rs. 8,580 Refundable)	21,840	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	33,070	33,070	37,250	37,250	42,415	42,415	54,515	57,395
Total (for Subsidized Students)		54,910	33,070	37,250	37,250	42,415	42,415	54,515	57,395
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	42,960	42,960	46,945	46,945	51,560	51,560	55,990	55,990
Total (for Non-Subsidized Students)		97,870	76,030	84,195	84,195	93,975	93,975	110,505	113,385

BS-Medical Lab Technology (MLT)									
Sr. #	Particulars	Semesters (Rs.)							
		1st	2nd	3rd	4th	5th	6th	7th	8th
(i)	One-Time Charges (Security Rs. 9,295 Refundable)	23,660	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	37,960	37,960	39,320	39,320	44,815	44,815	59,050	64,970
Total (for Subsidized Students)		61,620	37,960	39,320	39,320	44,815	44,815	59,050	64,970
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	35,800	35,800	39,115	39,115	42,965	42,965	46,675	46,675
Total (for Non-Subsidized Students)		97,420	73,760	78,435	78,435	87,780	87,780	105,725	111,645



BS-Microbiology										
Sr. #	Particulars	Semesters (Rs.)								
		1st	2nd	3rd	4th	5th	6th	7th	8th	
(i)	One-Time Charges (Security Rs. 8,580 Refundable)	21,840	-	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	35,040	35,040	39,320	39,320	44,815	44,815	54,510	59,970	
Total (for Subsidized Students)		56,880	35,040	39,320	39,320	44,815	44,815	54,510	59,970	
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	42,960	42,960	46,940	46,940	51,560	51,560	56,010	46,010	
Total (for Non-Subsidized Students)		99,840	78,000	86,260	86,260	96,375	96,375	110,520	105,980	

Doctor of Physical Therapy (DPT)											
Sr. #	Particulars	Semesters (Rs.)									
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
(i)	One-Time Charges (Security Rs. 7,150 Refundable)	18,200	-	-	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	56,800	56,800	62,935	62,935	76,815	76,815	91,535	91,535	96,540	101,090
Total (for Subsidized Students)		75,000	56,800	62,935	62,935	76,815	76,815	91,535	91,535	96,540	101,090



PROSPECTUS 2024-25

(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	37,790	37,790	40,840	40,840	45,085	45,085	49,065	49,065	51,710	51,710
Total (for Non-Subsidized Students)		112,790	94,590	103,775	103,775	121,900	121,900	140,600	140,600	148,250	152,800

Doctor of Pharmacy (D-Pharm)											
Sr. #	Particulars	Semesters (Rs.)									
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
(i)	One-Time Charges (Security Rs. 7,150 Refundable)	18,200	-	-	-	-	-	-	-	-	-
(ii)	Semester Dues/Tuition Fee	63,950	63,950	70,085	70,085	85,395	85,395	98,685	98,685	107,980	112,530
Total (for Subsidized Students)		82,150	63,950	70,085	70,085	85,395	85,395	98,685	98,685	107,980	112,530
(iii)	Non-Subsidized/ Regular Students will pay additional Tuition Fee	39,780	39,780	43,760	43,760	47,735	47,735	51,715	51,715	55,690	55,690
Total (for Non-Subsidized Students)		121,930	103,730	113,845	113,845	133,130	133,130	150,400	150,400	163,670	168,220



DIRECTORATES



Registrar

Prof. Dr. Khizar-ul-Haq

Contact: 05827-961037

E-mail: registrar@must.edu.pk

Core Functions Performed by office of the Registrar:

- 1) There shall be a Registrar of the University to be appointed by the Senate on the recommendation of the Vice-Chancellor, on such terms and conditions as may be prescribed.
- 2) The experience as well as the professional and academic qualifications necessary for appointment to the post of the Registrar shall be as may be prescribed.
- 3) The Registrar shall be a full-time officer of the University and shall,
 - a. be the administrative head of the secretariat of the University and be responsible for the provision of secretariat support to the Authorities of the University;
 - b. be the custodian of the common seal and the academic records of the University;
 - c. maintain a register of registered graduates in the prescribed manner;
 - d. supervise the process of election, appointment or nomination of members to the various authorities and other bodies in the prescribed manner; *and*
 - e. perform such other duties as may be prescribed.
- 4) The term of office of the Registrar shall be a renewable each after a period of three years:
Provided that the Senate may, on the advice of the Vice Chancellor, terminate the appointment of the Registrar on grounds of inefficiency or misconduct in accordance with prescribed procedure.



Treasurer/Chief Financial Officer

Prof. Dr. Muhammad Khalique

Tel.: 5827-961035

E-mail: treasurer@must.edu.pk

Core Functions Performed by Treasurer:

- 1) There shall be a Treasurer of the University to be appointed by the Senate on the recommendation of the Vice Chancellor, on such terms and conditions as may be prescribed.
- 2) The experience and the professional and academic qualifications necessary for appointment to the post of the Treasurer shall be as may be prescribed.
- 3) The Treasurer shall be the chief financial officer of the University and shall,-
 - a. Manage the assets, liabilities, receipts, expenditures, funds and investments of the University;
 - b. Prepare the annual and revised budget estimates of the University and present them to the Syndicate or a committee thereof for approval and incorporation in the budget to be presented to the Senate;
 - c. Ensure that the funds of the University are expended on the purposes for which they are provided;
 - d. Have the accounts of the University audited annually so as to be available for submission to the Senate within six months of the close of the financial year, and
 - e. Perform such other duties as may be prescribed.
- 4) The term of office of the Treasurer shall be a renewable each after a period of three years:
Provided that the Senate may, on the advice of the Vice Chancellor, terminate the appointment of the Treasurer on grounds of inefficiency or misconduct in accordance with prescribed procedure.



Controller of Examinations

Mr. Kamran Hameed

Phone: 05827-961038

E-mail: controller@must.edu.pk

Office of the Controller of Examinations is one of the most important Departments at Mirpur University of Science and Technology (MUST), Mirpur AJK.

Core Functions Performed by the Office of the Controller of Examinations:

- 1) All matters concerned with the conduction of examinations.
- 2) Preparation of final result notification(s) and display grade reports to students on CMS.
- 3) Arrangements for the timely issuance/provision of the examination materials, instructing the supervisory staff and holding their meetings as and when required.
- 4) Postponement or cancellation of examination, in part or in whole, in the event of malpractices or if the circumstances so warrant after approval of the Vice Chancellor.
- 5) Appointments of unfair means committee with the prior approval of the Vice Chancellor in relation to examination
- 6) matters for carrying out investigation and convene meeting and issue notices thereof.
- 7) Bringing into the notice of the Vice Chancellor all cases of infringement of rules of examinations with full report for disposal.
- 8) Maintaining over all examinations record of the students.
- 9) Ensuring and maintain strict secrecy of all information regarding the examinations.
- 10) Issuance of transcripts to Under-Graduate and Post- Graduate students. Keep record of student's results and ensure departmental secrecy.
- 11) Exercising such other powers and perform such other duties as may be prescribed or assigned to him, by the Vice Chancellor.
- 12) Issuance of degrees to Under-Graduate and Post-Graduate students.



DIRECTOR STUDENTS' AFFAIRS



Dr. Muhammad Altaf

Tel: +92-5827-961045

Fax: +92-5827-961045

Email: dsa@must.edu.pk

The directorate students 'affairs serve as a liaison between students, faculty and administration. The primary function of the Directorate is to organize extra-curricular activities for students and to nurture their intellectual, literary and artistic capabilities that usually remain untapped in a typical classroom environment. The Directorate also works to promote respect amongst students for dignified and disciplined.

Behaviour so that they become responsible and respectable members of the honoured community of scientists, engineers, architects, and planners. The student's affairs office provides assistance to the students in all possible way. It leads, directs and administers overall functions of student counselling, hostel residence, student societies and discipline. The important function of student affairs office is to enhance the quality of student life both in and outside the campus

Facilities

Transport

A large fleet of vehicles are available to provide morning/evening commuting facilities to the main point in the Mirpur City. Transport

facility is also available for students studying at Bhimber Campus. Besides pick and drop facility, transport is also provided to students for their study and recreational trips on recommendations of respective Deans of the Faculties.

Cafeteria and Shopping Complex

Aesthetically designed cafeteria and shopping complex have been constructed in the central wings of the campus. Shopping complex will offer the following services:

- Stationery Shop
- Book Shop
- Photoshop
- Cellular Shop
- Washer ma

Medical/First Aid Facilities:

Dispensary for students to provide them first aid is available in the main campus. In addition to Dispensary a fully equipped ambulance to handle any emergency round the clock is also available for evacuation to the nearest hospital.



Counselling and Career Advisory:

Counselling and career advisory provides primary mental health services to all MUST students, and Faculties. MUST is the only university in the AJ&K offering this counselling services to discuss their personal and academic concerns with competent counsellors, without any hesitations.

- Azad Jammu & Kashmir Government is very generous in sanctioning Zakat scholarships. Majority of students is getting full benefit of this facility.

Guardian Council

MUST is an organization which is not only teaching and tutoring students but also reshaping their minds to become sophisticated and responsible representatives of our society. We believe that work and integrity are not to be compromised. We ourselves determine our level of excellence. A guardian council in each department has been established to have complete information about following attributes of the students:

- Economic Situation
- Health Factor
- Psychological Problems
- Studies Report
- Interaction with other students
- Participation in Class

Students Societies

Students are offered ample opportunities to acquire and polish various social and professional skills. For this purpose, vibrant societies exist at MUST.

Under the supervision of Director Students' Affairs such as:

- Society of Computer Science & Information Technology (SOCIT)
- American Society of Mechanical Engineering MUST (ASME MUST)
- Society of Civil Engineering MUST (SCEM)
- Society of Electrical Technology (SET)
- MUST ORION
- MUST Computing Society (MCS)
- Society of Power Engineering (SOPE)
- Society of Sciences (SOS)
- ASHREE MUST
- MUST Arts & Décor Society (MADS)
- MUST Debating Society
- DHANAK Magazine Society MUST
- MUST Literary Society (MLS)
- Society for Women Engineers (SWE)
- AAINA Arts and Dramatic Society
- Youth Parliament MUST Chapter
- Irfan Shaheed Blood Donation Society
- Seerat Society MUST
- State Youth Assembly MUST Chapter
- ARFA KAREEM Computing Society
- Society of LAW (SOL)
- Student Development Circle (SDC)
- Girls Scholar Society Environmental Protection Society
- Student Welfare Society
- Disaster and Crisis Management Society
- Sports Society



ALI AHMED SHAH CENTRAL LIBRARY



Chief Librarian

Dr. Syed Zakir Hussain Bukhari

Tel.: +92 5827961053

E-mail: chief librarian@must.edu.pk

I welcome you on behalf of the Ali Ahmed Shah Central Library, the hub of research, a place for lifelong learning, discovery and innovation. Offering access to a multitude of resources, the Ahmed Shah Central Library aspires to provide high quality services to the educational community of MUST Mirpur. The top priorities of the central library is to development of learning spaces and extension of physical facilities, progression in services, and development of collections vital for learning and research. The real aim is to create Central Library services that are convenient and efficient for students and academic staff. The bottom line is to enrich students learning experience and enable research and scholarship in both formats(traditional and electronic).The Library staff is competent and always be there to provide timely response to your academic and research information needs. We want to help you meet your research and learning goals, and trust that the resources, facilities and services we provide will prove helpful to you. I urge you to visit and use the library and hope that you will consider it your educational partner and source of quality learning during your time at MUST University.

Introduction

With the inception of the UAJK in 1980, the College of Engineering and Technology, the College of Home Economics, Institute of Islamic Studies and Central Library were established. Central Library has the 23000 collections of books. The library has a rich and diverse collection of materials, especially in terms of the breadth and depth of coverage. The collection is ideally suited to encourage and support both scholarly pursuits and practical research activities. The Ali Ahmed Shah Library has a variety of material including Computer Science, Engineering, Mathematics, Management Sciences, and Earth Science, Social Sciences, General books, Fictions, Pakistan Study and Reference books. About 10 serial publications and 6 newspapers are on the subscription list. The Ali Ahmed Shah Central Library also offers the Book Bank services to the users and having a collection of 3400 books. Campus wide access to more than 22,000 electronic journals and more than 40,000 e-books is available through the HECs National Digital Library Program. Central Library has a new state of art building, having a sitting capacity of 400 students at time, and offers



automatic accessibility of resources with RFID system which is unique feature in the AJK. The library has also been equipped with all the latest Information Communication Technologies (ICTs) such as computers, multimedia, digital cameras, photocopier and high-speed internet connectivity to facilitate the faculty and students.

Vision Statement

- The Central Library, as the primary information provider to the university community, will provide leadership in information policy development, information technology application and information research.
- The Ali Ahmed Shah Central Library will maintain an excellent collection that is notable for the depth and breadth of its holdings.
- The Central Library will enhance access to knowledge, promote scholarly communication and provide information to the academic community in support of research and instructional programs.
- Library user's fraternity will benefit from inclusive and outstanding instruction, outreach and public services including access to user-friendly information systems.
- The campus community will recognize library staff for their expertise, technological competence, solid traditional library skills and as leaders in information management.
- The Central Library's physical facilities will accommodate and protect exiting collection and archives and provide room for

long term planned growth, securing space that is conducive to study, research and exploration of new technologies.

Mission

- The mission of the University Library is to support academic and scholarly needs of our users, in their core academic and research requirements through utilizing the best possible resources and extend this service to the community beyond the Mirpur University of Science and Technology, as far as possible.

Objectives

- To involve in regional, state and national efforts of library cooperation, thereby ensuring that students, faculty and staff have access to the broader universe of information.
- To provide high quality materials both print and electronic, that supports the curriculum and research.
- To support students, faculty and staff in identifying, locating, retrieving and interpreting information in all of its formats.
- To provide training of information literacy to students to become self-reliant information seekers and lifelong learners
- To offer services to off-campus and distance learning students that are comparable to services offered to on-campus students.
- To provide right information to right user in right format at right time.

Services

Services include two types of services; technical services and reader services in almost every type of library.

Technical Services



Technical services are very important in any type of the library. These services are helpful in searching and retrieving the book from the library. Technical service includes:

Acquisition

Acquisition department of library works for acquiring the material by students, faculty and staff of MUST. It deals with all types of content requested for library to meet the academic and research needs of MUST students, faculty and staff.

Accessioning and Classification

The Ali Ahmed Shah Central Library executes the technical services including acquisition of material, accessioning of materials, adopted the DDC 23rd edition, allotment of subject heading via Sears List of Subject Headings and entering books in CMS.

Future Program

- Creation of new Reference Section
- Deployment of E-library collection of MUST
- MUST Library Mobile App
- Establishment of discussion rooms for students and faculty
- Implementation of RFID Tag and RFID Gate.
- Implementation of KOHA software Deployment of computerize issuance to the students, faculty, and staff





ADVANCED STUDIES & RESEARCH BOARD (ASRB)



Director

Engr. Dr. Anzar Mahmood

Tel: +92-5827-961116

Email: director.asrb@must.edu.pk

Responsibilities

Office of the Advanced Studies & Research Board (AS&RB) is performing the following Functions and duties at the Mirpur University of Science & Technology (MUST):

- Monitor the academic and research progress of graduate students.
- Maintain and update the files of graduate students.
- Maintain and update academic regulations for graduate programs.
- Scrutinize the synopses of theses, coursework programs, and supervisors for M.Phil.
- Scholars and supervisory committees of PhD students manage their approval through the board.
- Scrutinize the theses of postgraduate students to ensure their proper format as laid down by the university.
- Streamline the latest developments within post-graduate degree programs of the university.
- Keep liaison with other universities, research organizations and the HEC for updates.
- Prepare agenda and conduct meetings of AS&RB.
- Execute the policies and decisions of AS&RB.
- Scrutinize all incentive cases for Publication and Theses Supervision of faculty members.
- Monitoring and holding of the University Graduate Admission Test (UGAT) as per the latest HEC Policies. For details, please visit MUST, UGAT portal at <https://ugat.must.edu.pk>



NETWORK AND TELECOMMUNICATION CENTER (NTC)



Director

Imtiaz Ahmad Bhat

Tel: +92-5827-960096

Email: director.ntc@must.edu.pk

Recognizing the critical role of technological advancement, the Network and Telecommunication Centre (NTC) was established as a dedicated department in June 2010. The creation of the NTC was intended to significantly improve and expand network and telecommunication services for the university. Located at MUST, Mirpur, the NTC is composed of a team of highly skilled and professional members who are responsible for delivering IT, computing, corporate training, and consultancy services. These services extend beyond the MUST campus to also benefit public and private organizations.

Mission Statement

Our mission is to provide innovative, reliable, and integrated IT solutions and support. We are dedicated to meeting the needs of users at MUST, Mirpur, by delivering ethical, dependable, and high-quality solutions that offer strategic value.

Areas of Activity/Services

In today's technology-driven world, network and telecommunication services are essential for the smooth operation

of any organization. These services enable both local and global connectivity and communication. NTC offers a wide range of facilities and services, including:

- Network design, installation, performance monitoring, troubleshooting, and maintenance
- Development, deployment, and maintenance of the MUST ERP system
- Creation and management of an in-house developed admission management system
- Development and maintenance of the SEET and UGAT Portals
- Installation, troubleshooting, and maintenance of Telecom Exchange systems
- System installation, activation, troubleshooting, and maintenance
- Design, development, and maintenance of the university website
- In-house software development
- Provision of internet services



- Training and technical support for the Online Learning Management System for faculty at MUST, Mirpur, as well as affiliated colleges
- Fiber connectivity between the Jerri-Kas campus and the data center at the city campus
- Technical support for event management at MUST, Mirpur
- In-house printing system for staff and student ID cards

HEC Special Projects with NTC Coordination

1. **Pakistan Educational Research Network (PERN)**

PERN is a national research and education network in Pakistan that connects premier educational and research institutions across the country. It fosters collaborative research, knowledge sharing, resource sharing, and distance learning by utilizing intranet and internet resources. The current bandwidth of PERN has been increased from 160 Mbps to 365 Mbps to meet the requirements of all departments. This network also supports the Virtual Education Project of Pakistan (VEPP), offering courses taught by renowned professors from around the globe.

2. **Digital Library Access**

The HEC National Digital Library (DL) program provides researchers within public and private universities in Pakistan, as well as non-profit research and development organizations, with access to international scholarly literature through online platforms. This program includes access to high-quality, peer-reviewed journals, databases, articles, and e-books across various disciplines. Over 75,000 electronic resources are available through the Digital Library Program. The NTC team at

MUST coordinates with the chief librarian to ensure seamless access to these digital resources for all faculty members and students.

3. **CISCO Academy/Short Courses**

MUST is a registered CISCO Academy offering courses such as CCNA, CCNA Security, and CCNP. Certified instructors teach and train students using the latest curriculum provided by Cisco, with hands-on practice on network devices.

4. **Microsoft Testing Centre/Academy**

MUST is a registered Microsoft Academy and Certified Testing Center for the Microsoft Office Specialist (MOS) program. A significant number of MOS tests have been conducted at MUST, Mirpur.

5. **HEC Smart Universities Project including SMART Classroom**

The NTC team has implemented the HEC Smart University Wi-Fi and Surveillance Solution at MUST, Mirpur, which includes:

- 24/7 wireless connectivity
- User-based internet access via Active Directory Service
- SMART Classroom established in Central Library Building and MIT Building Jharikass

Strengthening of Existing Facilities/Milestones Achieved

- PERN bandwidth enhanced from 160 Mbps to 365 Mbps in city campus
- 10 Mbps Backup link from SCO
- 100 Mbps from Sky telecom in JariKass Campus.



- 100% campus-wide wireless (Wi-Fi) internet access
- Ruckus Wi-Fi internet solution installed at the Bhimber campus
- Internet connectivity provided in the girls' hostel at Bhimber campus
- Academic procedures automated through the implementation of a Campus Management System (CMS)
- Development and deployment of an online admission system
- In-house printing system for staff and student ID cards
- Development and launch of an alumni website including the registration of alumni.
- Helpdesk facility for complaint management and ticketing
- Automation of HR and payroll processes at MUST
- Support for Turnitin Services to Faculty and Students
- Service card printing for the Department of Inland Revenue (Excise & Taxation Department) AJK
- Website management and hosting for the Nomination Board (Higher Education, Muzaffarabad)
- MOU with DHQ Mirpur for Hospital Information Management System and consultancy
- Technical support and consultancy provided to Bhimber University

Public-Private Projects and Civic Engagements

- Provided turnkey solution for driving license printing for Mirpur, Bhimber, and Kotli
- Technical support and consultancy provided to the Board of Intermediate and Secondary Education (BISE) Mirpur AJ&K NTC
- ERP (Enterprise Resource Planning) development and deployment for KORT
- Software/application co-location and technical support for HealthCare4All (NGO)
- Technical support provided to the President Secretariat, Muzaffarabad (AK)
- Card printing services for Mirpur Chamber of Commerce & Industries

OFFICES OF RESEARCH, INNOVATION & COMMERCIALIZATION (ORIC)



Director

Prof. Dr. Faisal Riaz

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Introduction

HEC aims to develop and sustain a dynamic and internationally competitive research sector in Pakistan that makes a major contribution to economic prosperity, national well-being and the expansion of knowledge. Promotion of Research is one of the core strategic aims of HEC. Through the initiatives launched by HEC the quality & research output emanating from the universities and institutions in country have shown tremendous improvements. In pursuit of this end HEC has started working to organize the research activities under one umbrella by establishing the Office of Research, Innovation and Commercialization (ORIC). In pursuance of the direction of HEC the university took the policy decision to establish this important office by issuing a notification No. Registrar/6328-68/2011 dated: 01-06-2011.

The minimum criteria for the establishment of ORIC have been completed in April 2013 with the aim of linking university research directly with educational, social and economic priorities of MUST and its broader community.

Objectives/Mission

The mission of ORIC is to develop, expand, chance and manage the university's research programs and to link research activities

directly to the educational, social and economic process of the university and its broader community. The office is also responsible for assuring that the quality of research reflect the highest international standards and advances the stature of the university, among the world's best research institutions.

In pursuit of this mission, the Office of Research has the responsibility of guaranteeing that all research programs and policies reflect the core values of academic freedom, professional integrity and ethical conduct and full compliance with all policies, legal requirements and operational standards of the university.

Facilities

Offices of Research, Innovation & Commercialization (ORIC) is divided into the following categories to facilitate MUST.

Research Operations

ORIC is promoting development of public-private partnerships:-

- Identify research grant opportunities for faculty to apply.
- Facilitate faculty to apply for research grants.
- Research administration, budgeting and auditing.
- Accounting and human resources management.
- Maintenance of facilities and equipment.



- Implementation of research contracts and human resources.
- Legal, administrative and financial management support of research grants

Research Development

ORIC is developing programs and activities that will:-

- Increase funding for research from all public and private sources.
- University internal funding for small projects.
- Establish and maintain excellent relationships with donors and stakeholders.
- Oversee proposal development and submission.
- Support commercialization, licensing, etc. of university research products.

University – Industrial Linkages

ORIC is developing links with several industries of AJK & Pakistan.

- To support the university research initiatives.
- Link the university's research community with the needs and priorities of the corporate sector.
- Develop opportunities for applied research and explore opportunities for technology transfer.
- Commercialization of university research.
- To follow-up of commercialization process of research products.

Contact Office of Research, Innovation and Commercialization (ORIC) for assistance and guidance on the following research related activities;

- Funding Opportunities
- Presentation of Research Work
- Organizing a Seminar, Workshop and Seminar etc.
- Patenting the Research Work
- Industrial Linkages, Commercialization of Research.

Potential Donors (National and International):

- Higher Education Commission (www.hec.gov.pk)
- Pakistan Science Foundation (www.psf.gov.pk)
- National ICT R&D Fund (<http://www.ictrdf.org.pk>)
- Pak-US Joint Academic & Research Program (<http://publisher.hec.gov.pk/www.hec.gov.pk/pakus-rd>)
- TWAS-COMSTECH Joint Research Grants (<http://twas.ictp.it/prog/grants/>)
- Human Frontier Science Program (www.hfsp.org)
- International Foundation for Science (<http://www.ifs.se>)
- Australian Agency for International Development (AusAID) (<http://www.aisaid.gov.au>)
- East WEST center (www.eastwestcenter.org)
- European Research Council (ERC) (<http://erc.europa.eu>)
- EU Funding and Grants (http://ec.europa.eu/index_en.htm)
- International Development Research Center (<http://www.idrc.ca>)
- Japan International Cooperation Agency (JICA) (<http://www.jica.go.jp>)
- Sigma Xi – The Scientific Research Society



QUALITY ENHANCEMENT CELL



Director

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Impact of Quality Assurance in the University

Quality is the bench-mark through which an institution can guarantee with confidence and certainty that the standards of its educational provision are being maintained and enhanced. The Quality Enhancement Cell (QEC) has been working in the university since the establishment of the university. The Quality of the degree programs is ascertained through the set criteria and measurable standards. Mirpur University of Science and Technology (MUST), Mirpur is moving ahead on the path of tremendous progress in the higher learning sector using human and financial resources. In order to facilitate access and enhance the quality programs, self-assessment system is implemented in the University. The process is directed at rising and elevating the quality of education compatible to the international standards. The Mirpur University of Science and Technology (MUST), Mirpur is a student focused University with quality consciousness. All the stake-holders including students, teachers and staff are committed to achieve academic excellence.

Mirpur University of Science and Technology (MUST) is committed to implement e-learning programs in accordance to the provision

provided by HEC COVID-19 guidance with pledge of quality assurance. QEC is dedicated to providing all education seekers an equal opportunity to access quality education from tertiary to higher education level through online learning. QEC is focused to develop a standard mechanism of online learning, for providing affordable and flexible educational opportunities that may open doors for all learners to broaden their horizon.

QEC Vision

"Quality Education for Societal and National Development through Innovation, Facilitation and Accountability"

QEC Mission

"To Focus on Modern Trends of Globalization in Teaching, Learning and Research for Sustainable Academic Development through Auto-corrected Procedure for Quality Improvement in the MUST" Mirpur University of Science and Technology (MUST) Retains W-Category in the HEC's University Quality Guide 2018 Mirpur University of Science and Technology (MUST), Mirpur retains W-Category (85- 100%) by securing 88.40% in the Pakistan's most widely read university ranking. This league table is made up of seven indicators including Quality Assurance, Teaching and



Research, Student-staff ratios, SAR report completion, Civic Engagements, Awareness Seminars/ Workshops and Membership of International Bodies around the globe. The result is the latest HEC-QAA league table success for MUST. It is worthwhile to mention here that this is the fourth Consecutive year MUST has featured in the W-Category in this guide, which ranks Universities across Pakistan.

Membership of Networks of Quality Assurance

QEC-MUST is actively participating in its role to enhance the quality of education at a higher level. In this regard, QEC has membership of national and international networks. Currently, Director QEC is an Executive member of Pakistan’s largest network of quality assurance in higher education named PNQAHE.

Membership of Network

Name of Agency	Location	Membership Status
AQPN	China	Under process
INQAAHE	Netherland Hague	Active
AQAAIW	Malaysia	Under process
Tallories Network	USA	Active
PNQAHE	Pakistan	Active

Accreditation of Programs from Relevant Councils

Name of Degree Programs	Faculty Name	Accreditation Council/ Body
B.Sc. Electrical Engineering	Engineering	Pakistan Engineering Council (PEC)
B.Sc. Civil Engineering	Engineering	Pakistan Engineering Council (PEC)

B.Sc. Mechanical Engineering	Engineering	Pakistan Engineering Council (PEC)
B.Sc. Software Engineering	Engineering	Pakistan Engineering Council (PEC)
B.Sc. Computer Systems Engineering	Engineering	Pakistan Engineering Council (PEC)
B.Sc. Electrical Engineering	Engineering	Pakistan Engineering Council (PEC)
Bachelor/ Master of Business Administration	Arts	National Business Education Accreditation Council (NBEAC)
Law	Arts	Pakistan Bar Council (PBC) Azad Kashmir Bar Council
Computer Science & Information Technology	Science	National Computing Education Accreditation Council (NCEAC)
AKSON College of Pharmacy Education	Health & Medical Sciences	Pakistan Pharmacy Council (PCP)
Computer Science & Information Technology	Arts	National Accreditation Council for Teaching Education



STUDENTS ASSISTANCE CENTRE (SAC)



Director

Engr. Dr. Naveed Akram

Tel.: +92-5827-961080

E-mail: scholarships@must.edu.pk

Establishment

Student Financial Aid Office (SFAO) was established in compliance with Higher Education Commissions (HEC) directives in February, 2013 and the Senate of the University has approved its establishment in its 4th meeting vide notification no. F.2/senate (4-M) i-47/6346-86/2013 dated: 30-07-2013. Due to statutory requirements of the University, the title of Student Financial Aid Office (SFAO) was renamed Student Assistance Centre (SAC) vide order no. R/5208-58/18 dated: 12-03-2018.

Mission

The SAC is primarily established to facilitate and uplift the underprivileged students who intend to achieve academic excellence, but lack of financial resources is one of the greatest roadblocks to follow their dreams. SAC coordinates grants of scholarships received from various national / foreign scholarship awarding agencies for MUST students enrolled in various disciplines and study programs. SAC provides guidance through advisory and counselling services to the students who are in need of scholarships for pursuance of their studies and research programs.

Key Roles

- Execute / implement and operate the financial assistance Scheme(s)/ programs of the Government / HEC / MUST and other donors.
- Establish regular communication flow between the MUST and the students/parents. Co-ordinate with all stake holders regarding the financial assistance /aid programs.
- Establish essential manual and automated processes to award financial assistance in a timely manner to Award financial assistance/Scholarships to qualified students, according to institutional and Govt. requirements.
- Create awareness; build relationships with the society for humanitarian support to higher education. Provide individual student/parent assistance in completing necessary applications and managing personal resources as they are needed to augment financial assistance in covering educational expenses.

Scholarship Opportunities

Following Scholarships are being offered as per donors and MUST policies.

1. **MUST-Merit based Scholarships**



Top 3- position holders or 5% students of each semester/ class are awarded by this scholarship @ **Rs.6,000/- per semester**. More than **300- students** are annually benefited against this program.

2. MUST-Need Based Scholarships

50-scholarships are awarded from the academic year 2014 to the **impoverished and needy newly admitted students** of subsidized category in undergraduate programs. The scholarship is awarded according to the principles and procedures laid down by the HEC for Need Based Scholarship programs. The component of the scholarship is fixed @ **Rs. 9,000/- per semester** or as determined by the University from time to time according to the availability of funds. This scholarship is granted for one academic year only maintaining CGPA 2.50.

3. Students-Guardians Insurance Scheme

The University shall **waive-off tuition fee** and grant **Rs.5,000/- per month as stipend** to such students whose parents/ guardians passes away (dies) during the educational period of the student provided the student apply for this financial assistance maintaining CGPA 2.50.

4. HEC Need Based Scholarships

70-80 scholarships are being awarded annually to the **impoverished and extremely needy new students admitted under subsidized category** for full duration of undergraduate study program. The component of scholarship is (i) **refund of tuition fee** and (ii) **Rs. 6000/- per month** as stipend. The detail of this scholarship is available at HEC website link <http://www.hec.gov.pk/InsideHEC/Divisions/HRD/Scholarships/NBS/HNBS/Pages/Introduction Objectives.aspx>

5. Pakistan Scottish Scholarship Scheme for Young Women

Pak-Scottish Scholarships are awarded to the **young women pursuing postgraduate level studies** and belongs to disadvantaged backgrounds by the Scottish Government through British Council, Islamabad. The detail is available at website www.britishcouncil.pk/scholarships

6. EHSAAS Under-Graduate Scholarship Project

Ehsaas Under-Graduate Scholarship Project is launched by the Prime Minister of Pakistan for the Students who are admitted under Subsidized Category in BS degree programs. The Scholarship was launched in **October 2019** for the first time. Under this program (Phase-I & Phase-II) currently 788 students have been awarded scholarship. The components of this scholarship are **Rs. 4,000/- stipend** per month and **tuition fee** waiver for whole degree program. Only newly admitted students of first semester can apply for this scholarship program. For more details please visit www.ehsaas.hec.gov.pk

7. HBL Foundation Scholarship Scheme

70-80 scholarships are being awarded from the academic year 2015 to the **financially challenged and low-income students** according to the rules & regulations notified by the University. The component of scholarship is stipend @ **Rs. 10,000/ to 16,000/-** per semester for an academic year. The application form and detail of scholarship is available at University Websites www.must.edu.pk & <http://sac.must.edu.pk> / HBL University Branch.

8. Laraib Energy Ltd. Scholarship

14- Scholarships are being awarded from the academic year 2018 to the financially challenged and low-income students of Faculty of Engineering and Technology. The component of scholarship is stipend @ **Rs. 35,000/-** for an academic year. The application form



and detail of scholarships is available at University Websites www.must.edu.pk & <http://sac.must.edu.pk>

9. Institution of Engineers Pakistan-Saudi Arabian Centre (IEP-SAC)

08- Scholarships are being awarded from the academic year **2018** to the financially challenged and low-income students of Faculty of Engineering. The component of scholarship is stipend @ **Rs. 12,500/-** per semester. The application form and details of scholarship is available at University Websites www.must.edu.pk & <http://sac.must.edu.pk>

10. National Endowment Scholarships for Talent (NEST)

17- Scholarships are being awarded from the academic year **2018** to the financially challenged and low-income students of Faculty of Sciences. The component of scholarship is Tuition Fee of two semesters. The application form and detail of scholarship is available at University Websites www.must.edu.pk & <http://sac.must.edu.pk>

11. Punjab Education Endowment Fund (PEEF)

65- Master Level scholarships are being offered by the Punjab Educational Endowment Fund for the students enrolled in any Master Level program after their BS degree in MUST. The component of this scholarship is payment of tuition fee and hostel charges to awardees @ Rs.120,000/-to 160,000/-during whole course of study. The application form and detail of scholarship is available at University Websites www.must.edu.pk & <http://sac.must.edu.pk/PEEF> website www.peef.org.pk

12. Haji Muhammad Bashir Scholarship

Haji Muhammad Bashir, a private donor has granted an amount of Rs. 50,000/- for the students of MUST to be selected from waiting

list of HBL Foundation Scholarship Scheme. 01-student of regular category from each faculty is being awarded this scholarship @ Rs. 16,666/- for an academic year.

13. Pakistan Engineering Council, Islamabad Scholarships

Pakistan Engineering Council (PEC) offers scholarships to the engineering students of MUST. For details of scholarship visit University Websites www.must.edu.pk & <http://sac.must.edu.pk> and PEC website www.pec.org.pk

14. Numbers of other Regular Stipends/ Scholarships

The following organization/ trusts and NGOs are directly offering different amount of stipends/ scholarships to the University students regularly. The students are advised to visit the websites/ offices of such organizations and apply directly through concerned HOD's for scholarship.

- a. Pakistan Bait-ul-Mall
- b. Fouji Foundation
- c. Teachers Foundation grant for the children's of Teachers only
- d. Benevolent Fund grant for the children's of Government and University employees.
- e. Zakat Fund grant of AJK- Pakistan Government
- f. AJ&K Council Scholarship Scheme.
- g. AJ&K State Talent Scholarship Scheme
- h. AJ&K Educational Endowment Found Scheme
- i. Gilgit Baltistan council Scholarship Scheme
- j. Institute of Electrical Engineers, Pakistan scholarship
- k. ASHAI Trust Scholarships
- l. Carmudi Scholarship

PROVOST HOSTELS



Dr. Kalim Ul Haq Tariq

Tel & Fax: 05827-961116

Email: provost@must.edu.pk

MUST provide accommodation in well-furnished hostels having all important facilities required for students. Accommodation in hostels is a privilege and cannot be claimed as a matter of right. Residential accommodation is an equal and merit based opportunity. Proper boarding, lodging and mess facilities are available to the residents. All University Hostels are under the direct supervision of the Provost who is assisted by Wardens, Assistant and Hostel Supervisors of each hostel. The Provost serves as overall in-charge of all hostels and sets policy guidelines for the hostel administration.

Name of Hostel	Seats
Iqbal Hostel (City Campus)	201
Abu-Bakar Hostel (City Campus)	171
Quaid-e-Azam Hostel (City Campus)	72
Maryam Girls Hostel (Home Economics Campus)	150
Umer Bin Khitab Boys Hotel (Jarikas Campus)	
Khadija-Tul-Kubra girls' hostel (Jarikas Campus)	

Hostel Allotment Policy

1. The allotments will be made purely on academic merit for the period of one year. Furthermore, the allocation of seats will not be decided on Departmental or Regional basis and cannot be challengeable at any forum.
2. The student whose name will be displayed in first merit list for Hostel allotments, are bound to deposit their Hostel dues within three working days for the confirmation of their allotments otherwise the allotment will be transferred to the next applicant in the merit list.
3. In the Hostel allotments, priority will be given to 1st year students belonging to far long areas.
4. The senior students of the University who are involved in any unlawful activities or any disciplinary action is taken against them, will not be considered for Hostel allotments.



5. Provision of incorrect data may cause rejection of the application.
6. The Hostel residents are not allowed to exchange or sublet their rooms.
7. The Hostel residents are bound to take care of all infrastructures and equipment of the Hostels and are responsible to hand over their rooms in good condition at the time of clearance.
8. The students from the Departments situated at Jarikas can only apply for allotments at the Jarkas' Hostels.
9. The allotments of those residents will be canceled immediately if He/ She is involved in breaching the University / Hostel rules at any stage.

Hostels Rules and Regulations

To maintain conducive learning environment in the university hostels, the Competent Authority has directed for implementation of each of the following disciplinary measures which are defined in the university calendar or practiced by the national and international organizations:

1. According to the university calendar (Volume-II), Hostel accommodation is not a right, but facility provided by the university. It is solely the prerogative of the university to offer accommodation in the hostel.
2. All the students who belong to those areas where the University transport is provided will not be eligible to avail themselves of the hostels facility.

3. The students are responsible to provide a character certificate which is issued by the concerned department before the submission of allotment application.
4. There shall be a complete ban on smoking within hostels' premises ("Prohibition of Smoking and Protection of Non-Smoker's Health Ordinance, 2002").
5. Residents are not allowed to arrange any event, meeting, or celebration within the hostels' premises without prior approval. The residents may seek approval from the concerned warden to conduct any event or meeting in any hall without compromising hostel disciplines, classroom activities, and the glorification of the University. The administrative control of every event shall be the responsibility of the Chief Security officer and the Provost hostels.
6. All types of Regional unions/ Political unions/ Religious unions/ associations/ organizations are banned in the university hostels. Such groups are also not allowed to use social or print media for any event/ news/ activity that can affect National Cyber Security Policy 2021 and results into the defamation of the university.
7. Any resident, if found involved in rigging, protest, boycott of classes or any other unlike student activity, strict disciplinary actions shall be taken against him as mentioned in University Calendar (Volume-II) and the affidavit submitted by students at the time of admission.
8. Residents are not allowed to bring any external person(s) (sibling(s), friend(s) etc.) within the university hostels' premises without the prior permission from the Chief Security Officer and the Provost hostels. Violation of this rule will render the boarder liable for expulsion from the hostel in addition to any penalty which the warden and the provost may deem fit.



9. It is mandatory for all residents to keep the resident’s card in the premises of the university hostels all the time. No resident is allowed to enter the hostels without a resident card.

10. Residents are expected to develop the habit of self-discipline. Nothing can make social life truly pleasant except genuine courtesy and mutual consideration.

11. Residents are not allowed to keep with them musical instruments, heaters, stoves, and air conditioners. Any resident found with such appliances have to pay, which the warden and the provost may deem fit.

12. Complaints against the misbehavior of supporting staff may be made to the wardens concerned. Residents are not allowed to use abusive language and physical force against them by themselves.

13. All notices about hostels’ policy will be pasted on notice boards and shall be considered as read by the residents. Failure to read a notice shall not be accepted as an excuse for non-compliance with such notices.

14. No advertisement will be made by residents without any prior approval from the concerned warden or the Provost hostels.

15. Residents will have to vacate the university hostels accommodation within one week of the completion of terminal exams. A resident who fails to fulfill the degree requirements within the minimum prescribed time duration, shall not be allowed to reside in the university hostels.

16. Residents shall pay for any damage which is done by them to the furniture and all other facilities provided by the Provost office.

17. Hostels mess shall be managed by the mess committee under the supervision of hostel warden and hostel supervisor. The mess committee will consist of three to five students those are elected

on a monthly or quarterly basis. A committee member may lose his right of membership if his conduct is found un-satisfactory with the residents. The mess committee is responsible to follow all the rules which are defined by the concerned warden and supervisor.

18. Strict disciplinary action shall be taken against the resident(s) if found involved directly or indirectly in violation of any of the above measures. Any violation in this regard shall be reported to the concerned Departmental Disciplinary Committee/University Disciplinary Committee (where required). The Provost Hostels is responsible to ensure the implementation of these measures with the coordination of all wardens and the Chief Security Officer.

Hostel Mess

1. Each hostel resident will automatically be considered as a member of the hostel mess.
2. The hostel mess will be monitored by a Mess Committee comprising of Resident students of the hostel appointed by the Warden and Supervisor with the approval of the Provost. The hostel mess shall remain open during the time prescribed for each meal.
3. All the members of the mess shall have their meals in the Dining Hall of the hostel. No meals shall be served in their rooms.
4. Smoking is strictly prohibited in the hostel mess and premises.

Fee Structure for Hostels

Sr. No.	Session	Fee (Per Semester)
04	2024	32890/-



DIRECTORATE OF SPORTS



Director

Mr. Abid Hussain

Tel: +92-5827-961057

E-mail: directos.sports@must.edu.pk

Director Sports who is assisted by a Director Physical Education (Female) is responsible for providing all the sports facilities to students. The Directorate is strongly committed to providing the finest environment possible for performing sports activities and providing all students with opportunity to participate in the sports of their interest. University life is not all work and no play. Sports activities help the students to make new friends. Competitive Sports at the University enjoy a successful profile. The dynamic sports Programs have been prepared with a view to providing the skills and knowledge needed for effective participation in sports activities. The Directorate offers a wide range of competitive, individual and team sports to suit all tastes and interests. The Directorate provides the facilities to take part in different sports activities in the evening on daily basis. The Sports activities carried out throughout the academic year include:

Athletics, Badminton, Football, Hand Ball, Cricket, Volleyball, Hockey, Basketball, Table Tennis, Roving, Tekking,

Mountaineering, Hike and Kabaddi. The Department also organizes/manages the participation of the University teams in All-Pakistan inter-University sports championships in different provinces of Pakistan as well as Azad Kashmir. The students are encouraged to participate in sports of their liking throughout the year. During the academic year sports week has been arranged.



DISCLAIMER

This Prospectus is intended for the guidance of persons applying for admission to the MUST. All reasonable care has been taken to ensure that the information published in this prospectus is correct. However, the University provides no guarantee that the information is accurate nor it can be held responsible for any errors or omissions. The Prospectus is not deliberated to be and should not be regarded as a legal binding between the university and applicant/any person. The use and interpretation of information contained herein is to be done by the university only. The University reserves the right to change the information any time in its absolute discretion.