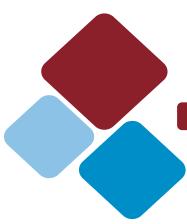


NATIONAL TEXTILE UNIVERSITY KARACHI CAMPUS



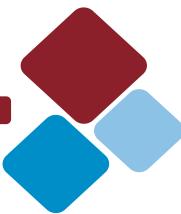
Undergraduate
Prospectus

2020-21



شروع اللہ کے نام سے جو بڑا مہربان نہایت رحم والا ہے

In the name of Allah
The Most Beneficent, The Most Merciful



MESSAGE FROM THE **RECTOR**

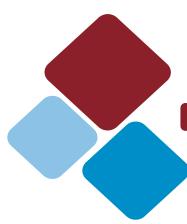


Role of University is immensely important increasing new knowledge and inventing new technologies for the benefit of humankind as well as in equipping students with suitable knowledge, skills and behavior that not only make them excel in their occupations but also in their general life, ultimately leading to the development of a peaceful and prosperous world. The purpose of education is to help mankind in the pursuit of selfactualization, in addition to the fulfillment of physiological, social and self-esteem needs. Good education includes not only the vocational development but also the cognitive, spiritual, emotional and social development of people.

National Textile University is one of the most rapidly rising University in Pakistan. Our teaching philosophy at NTU is student-oriented and our focus is to develop professional competence as well as good character in our graduates. The educational objectives of our programs not only include suitable knowledge and skills components but also the inculcation of desirable behavioral attributes in the students, such as: self-motivation, initiative and drive, passion for achieving goals, creativity, flexibility and adaptability, self-confidence, dependability, trustworthiness, fairness, empathy, politeness, integrity, conscientiousness, etc.

We offer plenty of curricular and extracurricular opportunities to enable our students to recognize and actualize their intellectual potentials and help them in acquiring key employability skills, such as effective communication, information management, critical thinking and problem solving. I am looking forward to your joining NTU to explore endless opportunities for your personal development and professional growth. I pray for your bright future and success in every walk of life

Dr. Tanveer Hussain
Rector



MESSAGE FROM THE CAMPUS DIRECTOR



I am honored to have this opportunity to welcome you as the Director of National Textile University, Karachi Campus. We are going through an exciting period of development and change under the leadership of Prof. Dr. Tanveer Hussain, Rector, National Textile University, Faisalabad.

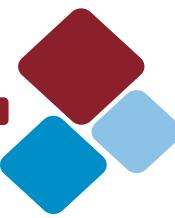
We strongly believe that given the guidance and resources students will thrive in taking charge of their own development. As a higher education provider, we ensure in providing the best learning opportunities for students in their academics supported by highly qualified and experienced faculty, well equipped laboratories with state of

the art equipment, availability of reference books along with latest professional journals and magazines covering the wider curriculum. At National Textile University we strive for overall student development and this target can only be achieved by pursuit of academic excellence supported by co-curricular activities. We offer a comprehensive range of co-curricular activities including sports, societies, internships, entrepreneurial schemes and volunteering for social services - as they are not only beneficial for student development but also highly valued by employers.

I am looking forward to welcome you at our Karachi Campus in an environment which encourage student to explore their hidden potential and develop themselves as excellent professional, a confident individual and an important human being who will create a positive difference in world.

I wish you a great learning experience.

Prof. Dr. Khalid Pasha
Director



OFFICERS OF CAMPUS



Mr. Shahid Ali Channa

Deputy Director
Admission & Examinations



Mr. Muhammad Ayaz

Deputy Director
QEC



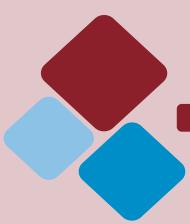
Mr. Muhammad Tanvir Baig

Deputy Director
Finance & Accounts



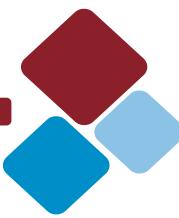
Mr. Salahuddin Khan

Registrar Office



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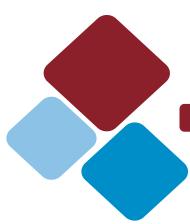
UNIVERSITY INTRODUCTION



The idea of establishing a Textile Institute of world fame was conceived by a group of visionary Industrialists in 1954. To realize this idea the Government of Punjab joined hands with the leading textile industrialists to form an Institute of Textile Technology in Faisalabad. Later, in 1965, the Institute was granted affiliation by the University of Engineering & Technology, Lahore, and it was renamed as "National College of Textile Engineering". The first batch of graduate engineers was passed out in 1966. In 1973 the administrative control of the Institute was transferred to Federal Government and it was renamed as " National College of Textile Engineering".

In 1992, the college received a comprehensive assistance worth 650 million yen from the Japanese Government, through JICA program, in the form of latest machinery and equipment for all the departments of the Institution. The Federal Cabinet on November 15th, 2002 has upgraded the college as National Textile University. The President of Pakistan is the Chancellor of the University.

Ever since its inception National Textile University has been the premier Institute of textile education in the country, meeting the technical and managerial human resource needs of almost entire textile industry of Pakistan. It always retained a close relationship with the industry and industrialists.



KARACHI CAMPUS



The Karachi Campus of National Textile University (NTU) spans over an area of more than five acres in the hub of main industrial area of the City. It was established in 2017. It is HEC recognized Government University.

Textile Industry in Pakistan is one of the most important sectors of our economic activity and has great socio-economic significance being the largest employment provider.

NTU Karachi Campus is established to fulfill both technical and man power need of the Industry, there are three purpose built buildings with a covered area of 120,000sq.ft including a 250 person capacity auditorium. The Campus is easily accessible through public transport.



Aims and Objectives

- The aim is to develop the Textile Industry and Human Resources of Pakistan and make Pakistan an active player in the world economy.
- NTU is committed to information revolution in every aspect of its activities. NTU will continue to strengthen its profile as a high standard University.
- NTU aims to collaborate with industry; produce high quality research and provide excellent educational services within the field of its mission.
- NTU is committed to launching and establishing facilities for postgraduate studies in textile and allied fields

NTU Core Philosophy

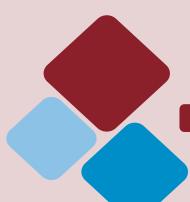
- NTU upholds TRUTH, LAW and JUSTICE in all kinds of situations and in all spheres of its activities.
- NTU is committed to decisions based solely of MERIT. This criterion applies to all aspects of its operation from selection and evaluation of its faculty, staff and students. All programs of the university strictly adhere to this core philosophy.
- NTU programs are designed so that every activity enhances student learning, individual development, ability to think analytically and problem solving approach.
- NTU considers character building to be an integral aspect of its programs, as learning without personal integrity will be of little value to an individual and society. Through out their studies, students are encouraged to develop a sense of creativity, independent critical analysis and research techniques.

Mission

The Mission of National Textile University is to contribute towards sustainable social economic development of society and welfare of humanity through pursuit of excellence in education, research and innovation in areas of National importance, with special emphasis on textile and clothing.

Vision

National Textile University aspires to have a transformative impact on the social-economic development of the country in general and textile & clothing industry in particular, with outstanding education, research and eco-friendly innovation.



Advisor Students Office/ Office of Student's Affairs

The Advisor Students Office/Office of Student's Affairs has been established to provide prospective and current students of the University with necessary information in order to make them well informed about campus life. This is done through information advisory services and the constant contact with the students.

The office performs a variety of roles for the student's community and its graduates and provides assistance in solving their day to day campus issues. The detail of the supporting services is as under:



General Services

1. Coordination and supervision of student Discipline, Coaching, Student Sports, Hostel/ Accommodation and other co-curricular activities.
2. To represent student point of view on campus issues.
3. Preparation and distribution of student event calendar, student bulletins, magazines, etc.

Scholarship Schemes

The Advisor Students Office also performs the functions of Students Financial Aid Office (SFAO) and provides the students a central point of obtaining the information of different scholarships/ Financial Aid Schemes. The office currently handling the following scholarships

1. HEC Need Based Scholarship Scheme
2. University Merit Scholarship
3. Prime Minister Ehsaas scholarship Programme
4. Punjab Educational Endowment Programme
5. Alumnize Scholarship Programme
6. And all Federal Grants

4. To coordinate and promote all kinds of internal or external base healthy activities.
5. To handle the matters of student bodies/ organizations/ Societies and helping them in arranging their functions/ extra-curricular activities.
6. On Campus Student Recruitment Drives/- Job Placement.

LIFE AT NTU-KC



STUDENTS SPORTS

Sports have a universal appeal and a common language spoken all across the globe. It is said "A Healthy body is a promise of healthy mind", and combination of both can do wonders for students. Besides academics, sports are one of the important co-curricular activities, included in all educational institution as a part of the curriculum. Sports attribute positively to the academic performance of our learners.

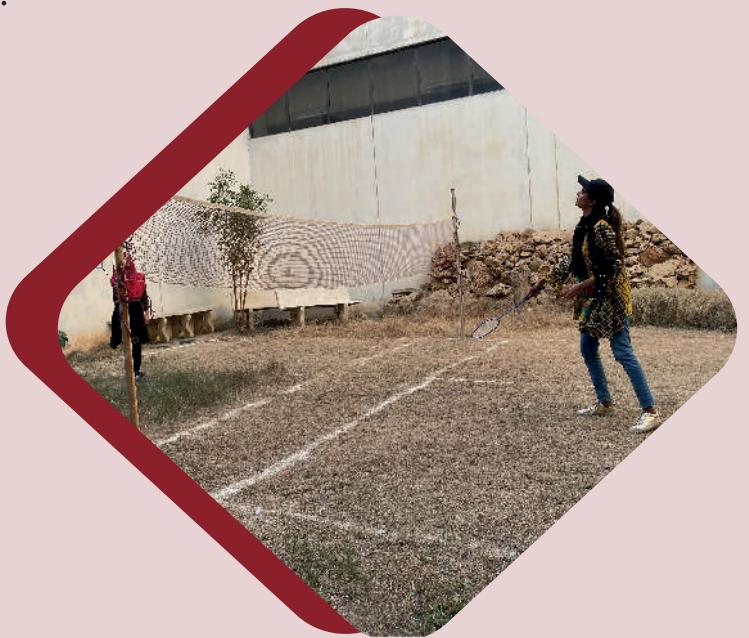
National Textile University gives special emphasis to arrange indoor/outdoor sports activities for the students (Male & Female) to enhance their Physical & Mental growth. For this purpose, Student Advisor Office is continuously improving its sports infrastructure within campus to facilitate students in strengthening sports activities.

Sports Officer, Physical Trainee Officer (PTI) are available for guidance / training of students as well as managing any type of sports activity.

Sports Facilities

A jogging track alongside the cricket ground for regular users.

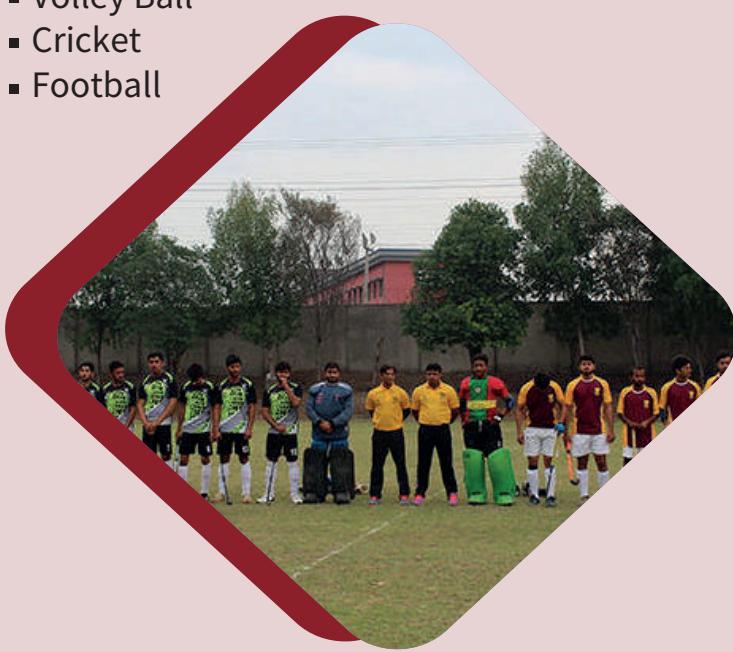
- Athletics
- Badminton
- Table Tennis
- Hockey
- Volley Ball
- Cricket
- Football



Sports Activities

Continuous sports' activities

- Intra-departmental Sports Competitions
- Inter Department Sports Competitions



LIBRARY

Libraries aim to encourage and support both academic and research activities of university students, researchers, faculty members and university staff. These provide a full range of services that include book loans, online information searching, reference services. These libraries are managed by qualified and experienced staff who are dedicated to provide quality services to its users.



DIGITAL LIBRARY

The Virtual Library contains categorized links to websites of textile and general media, product sourcing and trade associations, research centers and institutes, universities and colleges, trade directories, computer and technology for textiles, electronic resources and databases and open access journals and resources. Campus-wide access to a large number of electronic resources is available through HEC Digital Library.



SMART CAMPUS

A smart campus offer students seamless access to online information, learning and teaching tools enabling them to produce the work required of them, and software allowing them to stay connected to and collaborate with each other and the university. NTU has a vision to be a Smart Campus that demonstrates how innovative digital and tech-enabled solutions can support better learning and living experiences, the discovery of new knowledge, and the sustainability of resources.



ACADEMIC RULES





1. Semester Duration

There shall be two semester of 18 weeks each in a year. i.e.

Spring Semester Jan-May

Fall Semester Aug-Dec

The semester break up shall be as follows:
16 weeks teaching 2 weeks for examinations, declaration of results.

The semester break and summer session shall be observed in the University as promulgated by the University.

2. General

2.1 The medium of instruction as well as of examination shall be English for all the subjects except Islamic Studies and Pakistan Studies, for which medium shall be either Urdu or English.

2.2 Non-Muslim student may be allowed to take Ethical Studies course in lieu of Islamic Studies.

3. Semester Schedule

| | |
|---|-----------------------|
| Registration and Orientation | 1 Day |
| Classes | 8 Weeks |
| Mid-Semester Examination | 9 th Week |
| Classes | 8 Weeks |
| Final Examination | 18 th Week |
| Semester Break | 2 Weeks |
| Internship/Makeup Course/Industrial Visits during Summer Vacation | |

Gazetted Holidays as per Govt. Announcement.

4. Program Duration

4.1 Students shall be required to complete four-year undergraduate degree programs in minimum of 8 regular semesters (4 Years) and maximum of 12 regular semester (6 Years).

4.2 At the expiry of 12th semester from the date of enrollment, students shall not be allowed to appear in any subsequent University Examination.

5. Degree Requirements

All four years undergraduate degree programs consist of 130-140 credit hours of approved courses depending upon the requirements of a particular discipline.

6. Graduation Rule

The Degree shall be awarded to those students who would satisfy the following conditions:

6.1 Successful completion of total number of courses approved by the Board of Studies. There should be not be an 'F' Grade in any course.

6.2 Maintain a minimum CGPA of 2.0 during the entire period of his/her studies in the University

6.3 Achieve a minimum of 'C' Grade in Project/Thesis work.(Refer to thesis/project rules)

6.4 Passing the comprehensive viva vice examination.

6.5 Fulfill other requirements outlined in the academic and disciplinary rules & regulations.

7. Course Registration

7.1 Students shall be required to register for the courses before start of each semester on the prescribed registration form.

7.2 Course/s registration shall be allowed as announced by the University.

7.3 Any change of the course/s shall be allowed only within the first week from the date of commencement of the semester.

8. Maximum/Minimum Course Load in a Semester

8.1 The maximum course load for an undergraduate student in a regular (Fall & Spring) semester shall be 18 credit hours (6 courses).

8.2 The minimum course load for an undergraduate student in a regular semester shall be 9 credit hours (3 courses)

8.3 Students can take up to 6 credit hours (2 courses) during summer semester (F, D, D+)

9. Adding/Withdrawing Course

9.1 A student with the consent of concerned Director/HOD, may be allowed to withdraw a course/s within 10 weeks of the commencement of semester.

9.2 Student shall be awarded grade 'W' for the respective course/s if withdrawn within the 10 weeks of the commencement of semester with the prior permission from the University.



9.3 Course/s withdrawn within 10 weeks shall be recorded on the transcript with a grade 'W'.

9.4 Non attendance will not constitute an official withdrawal.

Add/Drop of Course/s

A student may add/drop course/s with the consent of concerned Director/HOD within 4th Week of the commencement of semester

10. Attendance Requirement

10.1 Students are required to adhere to the University academic calendar and attend regularly all lectures, laboratory sessions, seminars, discussions, library sessions and field work as may be specified for each course in a semester.

10.2 Students shall be required to maintain minimum of 75% of class attendance in each course, otherwise the student shall not be allowed to appear in the final exam of that course. There shall be no relaxation whatsoever for any reason

10.3 Failure to meet the attendance requirements shall render the student ineligible for the appearing in the final examination of the concerned course and he/she shall be awarded an 'F' grade in that particular course

11. Examination, Grading & Evaluation

11.1 There shall be 2 examinations: Mid Semester and Final Exam for each course during each semester, same criteria shall be followed in the Summer Semester.

11.2 The performance of a student shall be evaluated through a continuous testing procedure spread over the entire period of his/her studies.

11.3 The weightage of the exams and quizzes/assignments shall be as under:

In each semester, students may be required to appear in quizzes, tests, mid-exam, final examination, presentations(individual/group), group discussions and submit projects/assignments/lab reports etc.

Appearance in the final examination is mandatory.

These assessment marks (to be determined by the teacher concerned) will have different weightage contributing towards the overall assessment in percent

marks. This weightage may be determined on the basis of following guidelines:

| Nature of Examination | Weightage(%) |
|---|--------------|
| Class Participation/ Assignments/Quizzes/Projects | 30 |
| Mid Examination | 30 |
| Final Examination | 40 |
| Total | 100 |

11.4 In order to complete/pass a course, a student shall be required to obtain minimum 'D' grade each in Theory and Practical work separately.

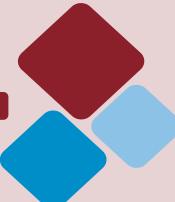
11.5 The teacher may give as a part of the course requirement, home assignments, quiz, and projects etc.

11.6 The number of activities mentioned in 11.5 shall depend on the credit hour weightage of the course. One credit hour shall entail minimum of two class activities. e.g. Three credit hour courses shall have minimum of 6 activities (quizzes/assignments or any other assessment activity).

11.7 Practical course is considered as a separate course of one credit hour equivalent to two/three Lab. contact hours. Practical courses shall be evaluated separately out of 100 marks.

11.8 Final Exam is mandatory, irrespective of the total marks obtained in the quiz/ assignments and mid semester exam.





12. Marks and Grading Criteria

Student's performance is evaluated by following grading criteria. Course grade (letter grades) are awarded to students based on the relative performance in the course as shown in the table.

| Marks% | Grade Point | Letter Grade | Remarks |
|--------------|-------------|--------------|------------------|
| 90 and above | 4.00 | A+ | Exceptional |
| 85-89.9 | 4.00 | A | Outstanding |
| 80-84.9 | 3.66 | A- | Excellent |
| 75-79.9 | 3.33 | B+ | Very Good |
| 71-74.9 | 3.00 | B | Good |
| 68-70.9 | 2.66 | B- | Above Average |
| 64-67.9 | 2.33 | C+ | Average |
| 61-63.9 | 2.00 | C | Satisfactory |
| 58-60.9 | 1.66 | C- | Pass |
| 54-57.9 | 1.33 | D+ | Low Pass |
| 50-53.9 | 1.00 | D | Marginal Pass |
| Below 50 | 0.00 | F | Fail |
| | | I | Incomplete |
| | | W | Course Withdrawn |

13. Merit Scholarship

Student obtaining GPA of 3.50 or above in any semester will be awarded merit scholarship.



14. Probation & Expulsion Rules

14.1 In order to continue in good academic standing a student must achieve a Cumulative Grade Point Average (CGPA) of at least 2.00 on scale of 4.00 during the entire period of his/her studies.

14.2 If a student's GPA drops below 2.00 in the first semester he/she shall be on 1st probation in the next semester. He/she shall be required to makeup CGPA of 2.00 or more in the next semester.

14.3 If a student GPA drops below 1.00 in the first semester, he/she shall be expelled from the university. Three credit hour courses shall have minimum of 6 activities (quizzes/assignments or any other assessment activity).

14.4 If a student is unable to maintain the CGPA of 2.00 in the second semester, he may be promoted to the next semester and would be on final probation. If a student fails to maintain the CGPA of 2.00 in that semester, he/she shall be expelled from the University and cannot be readmitted.

14.5 If a student fails to pass certain courses, yet manages to maintain CGPA of 2.00 or above he/she may be allowed to repeat and clear the courses when such courses are offered.

14.6 A student on probation shall only be allowed to take maximum of 12 credit hours load in the next regular semester.

14.7 A student is allowed only two academic probations in program after which he/she shall be expelled from the University.



15. Repetition/Improvement of Grades

15.1 Students generally may not be allowed to repeat courses for improvement of their grades except probationer students with 'D' and 'D+' grades only.

15.2 In case a student repeats the course which has already been taken, the old grade will be substituted with the new grade (for CGPA calculation), but in case a student takes a new course in lieu of the course in which he/she failed, both the grades will reflect on his/her Transcript, i.e. old course grade and new course grade.

15.3 A student can be allowed to repeat a maximum of six courses (18 credit hours) to improve his/her grade. (Projects, seminars, and special cases only)

16. Incomplete Course

16.1 An 'I' grade is given to a student in a project/seminar, if he/ she does not complete course requirements within the prescribed time-limit, and the supervisory committee is satisfied that it was because of circumstances beyond his/her control (special case), and that only a minor component of the course is outstanding.

16.2 Incomplete grade 'I' shall not be considered in GPA/CGPA calculations. However, it is responsibility of the student to complete the remaining work of 'I' grade course not later than 3rd week of the next semester.

17. Summer Semester

Summer semester is not a regular semester. It provides opportunity to students who have failed in course/s and those who wish to improve their CGPA to qualify the next semester:

17.1 During any summer semester normally, a student may enroll a course/s with 'F', 'D' and 'D+' grade up to a maximum of 6 credit hours.

17.2 A student may be enrolled only if the particular course/s is offered with minimum class formation of 5 students in each course.

18. Comprehensive Viva Voce

The comprehensive viva voce is mandatory requirement for the award of undergraduate degree. This viva voce is scheduled at the end of the final semester in which the student is completing his course work, in order to judge the understanding, articulation as well as application of the knowledge gained by the student. The idea is to see that students are able to digest what is being taught in four full years and see their relevance not only in the practical field but also their inter relationship.

19. Make Up Examination

19.1 If a student fails to appear in the Mid or Final Exam due to unavoidable circumstances i.e. death of blood Relations (mother, father, brother or sister), Personal severe accident, severe illness (hospitalization) (onus of proof entirely on the student), but otherwise complies

with other course requirements such as attendance, completion of assessment activities, then on the recommendations of the course teacher and the student advisor;

19.2 Mid semester or Final exam may be rearranged by University, only after the approval and determination of the modalities of the case.

19.3 Any such exam if allowed shall be held within the 3rd week of that semester's final exam of which the student is defaulter.

20. Semester Freeze Rule

20.1 A student may freeze a semester with prior permission and approval from the university within the first week of the commencement of a semester and only his/her 75% tuition fee will be refunded. 25% of tuition fee will be charged as service charges. Students freezing semester after the first week will not get any dues refunded.

20.2 If a student freezes a semester, he/she will be admitted in the same semester.

20.3 No freezing in the first semester is allowed.

20.4 A student freezing a semester has to complete his/her program in a maximum of 12 regular semesters (6 years). His/her registration will not be cancelled.

20.5 If a student drops a semester without prior approval of the university, his/her admission shall stand cancelled.



21. Cancellation of Admission

If a student fails to attend any lecture during the first four weeks of the commencement of the semester as per announced schedule, his/her admission shall stand cancelled automatically without any notice.

22. Cheating/Unfair Means

NTU maintains a very strict policy on academic improprieties. Any student found cheating or using unfair means in the ex quizzes and assignments will be dealt severely which may lead to expulsion from the university. (Please consult disciplinary/misconduct rules).

23. Student Grievances

A committee comprising all HOD's will redress the grievances of the students about any course instructor or grades. A student must approach the Director for a grievance on grade within 5 days of the receipt of the grade.

The Director shall forward the grade grievance to the committee and it will be binding on the committee for hearing both sides (student and the instructor), and will give a final decision within 5 days or before the start of registration for the new semester which comes early. The decision of the committee will be final.

24. Course File

Course file will be maintained for every course by the course teacher. It will have a complete record of everything that happened during the semester. The course file will contain:

- Course Specifications
- Weekly Teaching Schedule
- Academic Calendar
- Time Table
- Office Hours for Students
- List of Studies
- Class Activity Report with Class Attendance
- Copy of all Quizzes / Assignments
- Copy of Question Papers (Mid and Final Exams)
- Award List (Quizzes/Assignments/Mid Exam/Final Exam)
- Difficulties/problems faced during classroom/course Delivery

The course file of each subject will be made available to Student in the office of the HOD and also in the library.

Department of

TEXTILE &

CLOTHING

- BS TEXTILE ENGINEERING
- BS TEXTILE MANAGEMENT & MARKETING
- BACHELOR IN FASHION DESIGN

DEPARTMENT OF TEXTILE & CLOTHING

Introduction

Textile industry in Pakistan is one of the most important sectors of our economic activity and has great socioeconomic significance being the largest employment provider. The Department of Textile & Clothing is established to fulfill both the technical and man power needs of the industry.

Department of Textile and Clothing has a purpose-built building with a covered area of approximately seventy thousand (70,000) square feet. Building is equipped with necessary resources to carry out the needs of textile engineering courses and other practical demonstration requirements. The building comprises of lecture rooms, conference room and industrial size textile spinning plant, textile physical laboratories, textile chemical laboratories, library and other allied facilities. The Department has a pilot polyester fiber plant which is only one of its kind in the country.

Programs Offered

The four-year (eight semesters) programs are offered

- BS in Textile Engineering
- BS in Textile Management and Marketing
- Bachelor of Fashion Design

Programs are designed to develop the technical force with all the capabilities required to handle the complex engineering problems in processing and garments industry.

Laboratory Facilities

- Chemical testing laboratory
- Physical testing laboratory
- Eco-Textile laboratory
- Synthetic fiber Development laboratory
- Yarn Manufacturing Laboratory
- Fabric Manufacturing Laboratory
- Garment Manufacturing Laboratories
- Electrical & Electronics Laboratory
- Computer Laboratory
- CAD Laboratory
- Physics Laboratory
- Engineering Mechanics Laboratory
- Workshop Processes Laboratories
- Digital Pattern Making Laboratory
- Sculpture studio
- Drawing Studio



BS IN TEXTILE ENGINEERING

Mission Statement

The mission of Textile Engineering Program is to provide state-of-the-art academic and research environment that nurtures critical thinking and education of innovators and leaders to serve textile industry and society at large.

Brief Introduction

Textile Industry in Pakistan is one of the most important sector of our economic activity and has great socio-economic significance being the largest employment provider. The Department of Textile & Clothing is established to fulfill both the technical and manpower needs of the industry.

Department of Textile Engineering has a purpose-built building with the covered area of approximately Seventy Thousand(70,000) Square Feet. Building is equipped with necessary resources to carry out the needs of textile engineering courses and other practical demonstration requirements. The building comprises of lecture rooms, conference rooms and industrial size textile spinning plant, textile physical laboratories, textile chemical laboratories, library & other allied facilities. The Department has a pilot polyester fiber plant which is only one of its kind in the country.

The Program

The four-year (Eight Semesters) BS in Textile Engineering, BS in Textile Management & Marketing and Bachelor of Fashion Design programs are offered by the department. Programs are designed to develop the technical force with all the capabilities required to handle the complex engineering problems in processing and garments industry.

Career Prospects

The graduates of Department of Textile & Clothing find excellent job opportunities in the textile and related sectors within Pakistan and abroad. The graduates normally start their career as process engineer, researcher, production and planning manager/supervisor, technical sales and quality control. Commercial buying houses also offer lucrative jobs to textile graduates as they have a better understanding of textile fibers, techniques & material.

Program Educational Objectives(PEO)

1. Apply fundamental principles of science and engineering that underlie textile engineering for solution of relevant engineering problems for textile industry.
2. Achieve professional success by practicing behaviour, sustainability and diversity with effective communication in individual team.
3. Adopt innovative approaches and pursue career growth undertaking professional training and/or studies in engineering sciences and management.



Program Learning Outcomes (PLOs)

By the time of graduation, we inculcate the following outcomes into our students

| Attributes | Program Learning Outcomes (PLOs) |
|--|--|
| Knowledge base for Engineering | Ability to apply knowledge of mathematics, natural sciences, engineering fundamentals and textile engineering specialization to the solution of complex textile engineering problems. |
| Problem Analysis Skills | Ability to identify, formulate, research literature and analyze complex textile engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences. |
| Solution Design Skills | Ability to design solutions for complex textile engineering problems and design systems, products, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations. |
| Investigation & Experimentation Skills | Ability to conduct investigations of complex textile 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. |
| Use of Engineering & IT tools | Ability to create, select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to complex textile engineering problems, with an understanding of the limitations. |
| Social Responsibility | Ability to apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice and solutions to complex textile engineering problems. |
| Environment & Sustainability | Ability to understand and evaluate the sustainability and impact of professional engineering work in the solution of complex textile engineering problems. |
| Professional Ethics | Ability to apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice. |
| Individual & Teamwork | Ability to function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings. |
| Communication Skills | Ability to communicate effectively on complex textile 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, and give and receive clear instructions. |
| Quality & Engineering Management | Ability to 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 textile projects and in multidisciplinary environments. |
| Lifelong Learning | Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. |

BS IN TEXTILE ENGINEERING

1st Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------|-------------------------------------|-----------|----------|--------------|
| MA-1001 | Calculus | 3 | 0 | 3 |
| PH-1001 | Physics-I | 2 | 1 | 3 |
| CS-1071 | Introduction to Computing | 2 | 1 | 3 |
| ENG-1091 | Functional English | 3 | 0 | 3 |
| HU-1091 | Islamic Studies/Ethics | 2 | 0 | 2 |
| TE-1111 | Introduction to Textile Engineering | 2 | 0 | 2 |
| | TOTAL | 14 | 2 | 16 |

2nd Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------|-------------------------------------|-----------|----------|--------------|
| CH-1001 | Chemistry-I | 2 | 1 | 3 |
| MA-1002 | Engineering Math-I | 3 | 0 | 3 |
| ENG-1092 | Communication & Presentation Skills | 3 | 0 | 3 |
| SS-1094 | Social Intelligence & Soft Skills | 3 | 0 | 3 |
| TE-1112 | Textile Raw Materials | 3 | 0 | 3 |
| ME-1121 | Engineering Drawings | 0 | 1 | 1 |
| | TOTAL | 14 | 2 | 16 |

3rd Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|---------|--------------------------------------|-----------|----------|--------------|
| MA-2001 | Engineering Math-II | 3 | 0 | 3 |
| ME-2121 | Instrumentation & Control | 2 | 1 | 3 |
| TE-2111 | Introduction to Yarn Manufacturing | 2 | 1 | 3 |
| TE-2112 | Introduction to Fabric Manufacturing | 2 | 1 | 3 |
| TE-3115 | Colour Science | 2 | 0 | 2 |
| CH-2001 | Chemistry-II | 2 | 1 | 3 |
| | TOTAL | 13 | 4 | 17 |

4th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|---------|---|-----------|----------|--------------|
| PH-2001 | Physics-II | 2 | 1 | 3 |
| TE-3112 | Fibre Science | 2 | 1 | 3 |
| TE-2113 | Introduction to Textile Chemical Processing | 2 | 1 | 3 |
| ME-2122 | Mechanical Engineering Fundamentals | 2 | 1 | 3 |
| TE-2114 | Introduction to Garment Manufacturing | 2 | 1 | 3 |
| PE-2102 | Polymer Engineering Fundamentals | 3 | 0 | 3 |
| | TOTAL | 13 | 5 | 18 |

BS IN TEXTILE ENGINEERING

5th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------|---------------------------------|-----------|----------|--------------|
| GM-3041 | Garment Sizing & Pattern Making | 3 | 1 | 4 |
| CS-3071 | Computer Programming | 2 | 1 | 3 |
| ENG-3091 | Technical Writing | 3 | 0 | 3 |
| TE-3113 | Mechanics of fibrous Structures | 2 | 1 | 3 |
| GM-3042 | Advance in Apparel Production | 2 | 1 | 2 |
| HU-1092 | Pak Studies | 2 | 0 | 2 |
| | TOTAL | 14 | 4 | 18 |

6th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------|---|-----------|----------|--------------|
| EE-3001 | Electrical & Electronics Systems | 2 | 1 | 3 |
| GM-3043 | Industrial Engineering in Garment Manufacturing | 2 | 1 | 3 |
| TE-3114 | High Performance Fibres | 2 | 0 | 2 |
| TE-3111 | Textile Engineering Utilities & Services | 3 | 0 | 3 |
| GM-3044 | Industrial Cutting & Sewing | 3 | 1 | 4 |
| MGT-4084 | Operations Management/Procurement Management | 3 | 0 | 3 |
| | TOTAL | 15 | 3 | 18 |

7th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|-----------|--|-----------|----------|--------------|
| GM-4041 | Garment Production Machinery | 3 | 1 | 4 |
| SS-4095 | Personality Development/Character Building | 3 | 0 | 3 |
| GM-4042 | Senior Design Project-I | 0 | 3 | 3 |
| GM-4043 | Garment Testing & Quality Management | 3 | 1 | 4 |
| STAT-4001 | Statistical Methods in Engineering | 3 | 0 | 3 |
| | TOTAL | 12 | 5 | 17 |

8th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------|--|-----------|----------|--------------|
| MGT-4089 | Quality Management Systems / Entrepreneurship | 3 | 0 | 3 |
| GM-4044 | Apparel Merchandising & Sourcing | 3 | 0 | 3 |
| GM-4045 | Senior Design Project-II | 0 | 3 | 3 |
| CS-4071 | Computer Applications in Engineering Design | 2 | 1 | 3 |
| TE-4111 | Environmental & Social Compliances in Textiles | 3 | 0 | 3 |
| | TOTAL | 11 | 4 | 15 |

| | | | |
|--|---|---|------------|
| Industrial Internship (4 weeks, 6 days/week, 8 hours/day during summer holidays) | 0 | 1 | 1 |
| Total Credits for BS in Textile Engineering (Garment Manufacturing) | | | 136 |

TEXTILE MANAGEMENT & MARKETING



DEPARTMENT OF TEXTILE MANAGEMENT & MARKETING

Vision Statement

Our vision is to be a national leader in management education and research with a special focus on the textile sector of Pakistan.

Mission Statement

Our mission is to deliver life-changing educational experiences that bring out the best in every student. We do this within a spiritually rich, intellectually stimulating and industry-oriented environment, aiming at developing character, nurturing business acumen, fostering entrepreneurial spirit and grooming leadership traits to meet the challenges and opportunities of the twenty-first century.

Brief Introduction

Department of Management Sciences offers two undergraduate level business degree programs. These programs are professionally designed and their curriculums are rationally tailored according to the requirements of business organizations at national and international level. The department aims to produce individuals with good leadership skills with a blend of knowledge related to management, marketing and textiles. Teaching faculty at Department of Management Sciences is fully committed to provide exciting, challenging and rewarding experiences to students during their studies, and to make every possible effort to help them in reaching their full potential.

Career Prospects

National Textile University enjoys excellent reputation in corporate sector for extraordinary performance of its Graduates. This is why our graduates have more job opportunities for securing good jobs as compared to other local

business schools. Both degree programs offered by Department of Management Sciences provide wide range of career opportunities for its graduates. While BBA program prepares students to pursue their careers in the fields of marketing, finance and human resource management, BS in Textile Management and Marketing is a specialized program that prepares our graduates to work at different managerial levels in marketing, merchandizing and production planning departments in textile sector. Success of our graduates speaks volumes about the quality of education at Department of Management Sciences.



BS in Textile Management and Marketing

- Program Goals

Goal 1: Core Business Education

We aim to develop theoretical and practical understanding among students about core business curriculum so that the students can effectively use this knowledge in contemporary business world.

Goal 2: Effective Oral and Written Communication

We aim to develop effective writing and oral communication skills in our students so that they can use their abilities to communicate accurately and precisely at workplace with clarity, and deliver effective presentations by using state of the art technology.

Goal 3: Analytical Thinking and Decision Making Skills

We aim to develop analytical thinking skills among our students so that they learn to break down complex problems to make effective decisions in contemporary workplace environment.

Goal 4: Ethical Consideration in Decision Making

We aim to develop awareness among our students about social and ethical considerations so that they take into account moral consequences in decision making.

Goal 5: Fostering Leadership and Entrepreneurial Spirit

We aim to nurture our students' leadership and entrepreneurial skills so that they can use these skills in today's teamwork oriented and multicultural workplace settings to effectively and efficiently reach organizational goals through their subordinates or employees.

Goal 6: Textile Management & Marketing

We aim to prepare our students to work exceptionally well in different Managerial positions in Pakistan Textile Industry ranging from production planning to marketing.

Program Learning Objectives

After completion of the degree program, students will be able to:

- 1.1 Understand and apply theoretical knowledge to solve business problem sate of the art technology.
- 1.2 Demonstrate ability to argue for a particular course of action after comparing strategies and plans.
- 1.3 Possess ability to independently complete assigned responsibilities.
- 2.1 Understand appropriate use of technology to communicate effectively at workplace.
- 2.2 Learn to assess relevance of ideas, and develop ability to justify one's position with reason.



- 2.3 Demonstrate effective oral and written communication skills in business situations.
- 3.1 Develop ability to organize and analyze complex data for effective decision-making.
- 3.2 Argue and justify the most appropriate ways to solve business problems.
- 3.3 Show competence in effectively identifying a problem and suggesting a solution.
- 4.1 Understand different frameworks used for ethical decision-making.
- 4.2 Understand common ethical problems faced by managers.
- 4.3 Understand consequences of corporation decision-making on all stakeholders.
- 4.4 Compare different frameworks for ethical decision making in order to choose the most appropriate framework to make decisions effectively in socially responsible ways.
- 4.5 Demonstrate Ability to use ethical knowledge in decision making.
- 5.1 Understand different approaches towards managing employees.
- 5.2 Develop ability to identify a suitable business opportunity and understand important factors to consider before starting business.
- 5.3 Compare different theories of leadership, and demonstrate ability to select and argue the most appropriate style.
- 5.4 Demonstrate ability to achieve goals through coworkers in contemporary workplace settings.
- 6.1 Understand production, marketing and management related issues to Textile Sector of Pakistan
- 6.2 Understand current global practices of Textile Sector of Pakistan and their appropriateness.
- 6.3 Demonstrate ability to work in different managerial positions ranging from production planning to Textile Marketing in Textile Sector of Pakistan.



BS IN TEXTILE MANAGEMENT & MARKETING

1st Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|-----------|----------------------------|-----------|----------|--------------|
| HU-1091 | Islamic Studies/Ethics | 3 | 0 | 3 |
| MGT-1081 | Principles of Management | 3 | 0 | 3 |
| CS-1071 | Introduction to Computing | 2 | 1 | 3 |
| ENG-1093 | English-I | 3 | 0 | 3 |
| ECON-1081 | Micro Economics | 3 | 0 | 3 |
| ACCT-1081 | Fundamentals of Accounting | 3 | 0 | 3 |
| | TOTAL | 17 | 1 | 18 |

2nd Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|-----------|--------------------------|-----------|----------|--------------|
| MA-1003 | Business Mathematics-I | 3 | 0 | 3 |
| STAT-1001 | Business Statistics | 3 | 0 | 3 |
| HU-1092 | Pakistan Studies | 3 | 0 | 3 |
| MKT-1081 | Principles of Marketing | 3 | 0 | 3 |
| ENG-1094 | English-II | 3 | 0 | 3 |
| TE-1113 | Introduction to Textiles | 3 | 0 | 3 |
| | TOTAL | 18 | 0 | 18 |

3rd Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|-----------|----------------------------|-----------|----------|--------------|
| MA-1004 | Business Mathematics-II | 3 | 0 | 3 |
| STAT-2002 | Statistical Inferences | 3 | 0 | 3 |
| BUS-2083 | Oral Communication | 3 | 0 | 3 |
| MKT-2082 | Marketing Management | 3 | 0 | 3 |
| ACCT-2082 | Financial Accounting | 3 | 0 | 3 |
| SS-1093 | Introduction to Psychology | 3 | 0 | 3 |
| | TOTAL | 18 | 0 | 18 |

4th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|-----------|---------------------------|-----------|----------|--------------|
| ECON-2082 | Macro Economics | 3 | 0 | 3 |
| BUS-2084 | Business Communication | 3 | 0 | 3 |
| MKT-2083 | Consumer Behavior | 3 | 0 | 3 |
| BUS-2085 | Business Research Methods | 3 | 0 | 3 |
| FIN-2081 | Business Finance | 3 | 0 | 3 |
| SS-2092 | Introduction to Sociology | 3 | 0 | 3 |
| | TOTAL | 18 | 0 | 18 |

5th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|-----------|--------------------------------|-----------|----------|--------------|
| TE-1112 | Textile Raw Materials | 3 | 0 | 3 |
| ECON-3083 | Economy of Pakistan | 3 | 0 | 3 |
| CS-3074 | Management Information Systems | 3 | 0 | 3 |
| MGT-3082 | Organizational Behavior | 3 | 0 | 3 |
| HU-3096 | Foreign Language | 3 | 0 | 3 |
| | TOTAL | 15 | 0 | 15 |

6th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------|---|-----------|----------|--------------|
| HRM-3081 | Introduction to Human Resource Management | 3 | 0 | 3 |
| TE-2111 | Introduction to Yarn Manufacturing | 2 | 1 | 3 |
| TE-2111 | Introduction to Fabric Manufacturing | 2 | 1 | 3 |
| BUS-3086 | International Relations & Current Affairs | 3 | 0 | 3 |
| FIN-3082 | Financial Management | 3 | 0 | 3 |
| | TOTAL | 13 | 2 | 15 |

7th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------|---|-----------|----------|--------------|
| TE-2113 | Introduction to Textile Chemical Processing | 2 | 1 | 3 |
| TE-2114 | Introduction to Garment Manufacturing | 2 | 1 | 3 |
| TE-4112 | Product Costing in Textile & Apparel Industry | 3 | 0 | 3 |
| MGT-4085 | Entrepreneurship | 3 | 0 | 3 |
| MGT-4084 | Operations Management | 3 | 0 | 3 |
| | TOTAL | 13 | 2 | 15 |

8th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------|-------------------------------------|-----------|----------|--------------|
| MKT-4084 | Export Marketing | 3 | 0 | 3 |
| MGT-4086 | Strategic Management | 3 | 0 | 3 |
| BUS-4087 | Business Ethics | 3 | 0 | 3 |
| TE-4113 | Textile Testing and Quality Control | 3 | 0 | 3 |
| BUS-4088 | Final year Project | 3 | 0 | 3 |
| | TOTAL | 15 | 0 | 15 |

| | | | |
|--|------------|---|---|
| 6-Week summer internship after sixth semester | 0 | 1 | 1 |
| Total Credits for BS in Textile Management & Marketing | 133 | | |



FASHION DESIGN

DEPARTMENT OF FASHION DESIGN

Mission Statement

Department of Design is committed to inculcate students with vision, knowledge and skill, enabling them to provide creative solutions to Textile & Fashion World, coherent with rapidly changing technology and indigenous roots of Design.

Introduction

The four year degree programs in Fashion & Textile Design are based on a comprehensive and interdisciplinary approach that investigates the conceptual and theoretical foundation of design process and methodology. The course emphasizes on the research based approach to Design. Methods of instruction include lectures, seminars with extensive studio work and emphasis on team work in design projects. Education in the department of design provides the students a skill that will prepare them to follow successfully their future career paths in the relevant fields

Facilities

Department of Design is located in a purpose built building facilitated with many dedicated studio spaces, as well as specialized work areas. Department has a variety of facilities such as Sewing and Weaving Lab, 3D Art Workshop, Drawing Studio, Draping Lab and several design studios, equipped with state of the art equipment for fabric cutting, industrial sewing, mannequins for draping and digital photo equipments. Students can also access ICT and computing facilities in a dedicated lab to develop contextual digital and photographic work for their projects. For advance Technological development in design, Department collaborates

with Textile Engineering Department which creates an exclusive design education bundled with technology.

Career Paths

Owing to well designed curriculum of Textile & Fashion Design. The students could pursue a wide range of career such as Textile Designer, Fashion Designer, Surface Designer, Stylist, CAD/CAM Designer, Technical Designer, Freelance Artist, Textile Artist, Graphic Artist, Product Specialist and above all some of the graduates can pursue to setup their own design business and studios.

Degree offered by Fashion Design Program

- Bachelor of Fashion Design



Program Offered by Department of Fashion Design

Bachelor of Fashion Design

Programme Objectives

1. To yield quality graduates in the field of Textile and Fashion Design, who have strong theoretical base augmented with hands on practical work.
2. To generate human resource for design industry, equipped with tools of intense knowledge of technology and command on creative processes specifically related to fabric and textile sectors.
3. To develop in students the understanding about the importance of diversity, pace and change in fashion business.
4. To teach students about the moral and ethical values of society and their implications in context of textile and fashion business.
5. To develop in students the ability to identify, interpret the source of design, adopting technological developments and production of their concepts in material forms.
6. To produce graduates who have entrepreneurial skills so that they can be self employed and contributes to the economy of nations.



Programme Outcomes

After the completion of formal education, graduates:

1. will have the ability of work as, but not limited to fashion designer, stylist, Illustrator, costume designer, textile designer, patternmaker etc.
2. will be able to conduct research independently in order to analyse cultural and aesthetic trends and to use the outcomes/information for development of contemporary design concepts.
3. will be able to produce original designs for textile and fashion market, after critically evaluating visual, ethical and cultural information of the era.
4. can apply the critical thinking to fashion and textile design processes while considering varied perspective and using skills of drawing, painting, weaving, knitting, colour forecasting and applications.
5. students will be able to use ICT and computing skills to complements their design skills and develop digital designs for fashion and textile industries.
6. students will have the ability to work in interdisciplinary tasks individually as well as in teams, and they will be able to play their role as a good citizen with in the boundaries of ethics.



BACHELOR OF FASHION DESIGN

1st Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------|------------------------------------|-----------|----------|--------------|
| ENG-1091 | Functional English | 3 | 0 | 3 |
| FA-1091 | Basic Drawing-I | 0 | 2 | 2 |
| CS-1072 | Digital Communication-I | 1 | 1 | 2 |
| DES-1091 | Fundamentals of Design | 2 | 1 | 3 |
| DES-1092 | History of Visual Arts & Culture-I | 2 | 0 | 2 |
| DES-1093 | Mathematics for Designers | 2 | 0 | 2 |
| FA-1092 | Sculpture-I | 0 | 2 | 2 |
| | TOTAL | 10 | 6 | 16 |

2nd Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------|---------------------------------------|-----------|----------|--------------|
| ENG-1092 | Communication & Presentation Skills-I | 3 | 0 | 3 |
| HU-1092 | Pakistan Studies | 2 | 0 | 2 |
| FA-1093 | Basic Drawing-II | 0 | 2 | 2 |
| CS-1073 | Digital Communication-II | 2 | 1 | 2 |
| DES-1094 | Design Developments | 2 | 1 | 3 |
| DES-1095 | History of Visual Arts and Culture-II | 2 | 0 | 2 |
| DES-1096 | Drafting | 1 | 1 | 2 |
| FA-1094 | Sculpture-II | 0 | 2 | 2 |
| | TOTAL | 11 | 7 | 18 |

3rd Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------|-----------------------------------|-----------|----------|--------------|
| TT-2067 | Textile Basics & fibers | 2 | 0 | 2 |
| FD-2091 | Flat Patterns | 1 | 1 | 2 |
| FA-2091 | Anatomy & Portrait Drawing | 0 | 2 | 2 |
| DRP-2091 | Draping-I | 0 | 2 | 2 |
| SEW-2091 | Sewing-I | 1 | 1 | 2 |
| BUS-2083 | Oral Communication | 3 | 0 | 3 |
| FD-2092 | Digital Fashion Design-I | 1 | 1 | 2 |
| FD-2093 | Developments in Fashion Costume-I | 2 | 0 | 2 |
| | TOTAL | 10 | 7 | 17 |

4th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------|-----------------------------------|-----------|----------|--------------|
| YM-2068 | Yarn Manufacturing | 2 | 0 | 2 |
| FD-2094 | Pattern and Grading-I | 1 | 1 | 2 |
| SEW-2092 | Sewing-II | 1 | 1 | 2 |
| DRP-2092 | Draping-II | 0 | 2 | 2 |
| FD-2095 | Digital Fashion Design-II | 1 | 1 | 2 |
| FD-2096 | Fashion Design Studio-I | 0 | 1 | 1 |
| FD-2097 | Development in Fashion Costume-II | 2 | 0 | 2 |
| TD-2099 | Textile(Weave)Design | 1 | 1 | 2 |
| FD-2098 | Color Science for Designers | 2 | 0 | 2 |
| | TOTAL | 10 | 7 | 17 |

5th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------|--------------------------|----------|----------|--------------|
| ENG-3091 | Technical Writing | 2 | 0 | 2 |
| FD-3091 | Pattern & Grading-II | 1 | 1 | 2 |
| SEW-3091 | Sewing-III | 1 | 1 | 2 |
| DRP-3091 | Draping-III | 0 | 2 | 2 |
| FD-3092 | Advance Digital Design-I | 0 | 2 | 2 |
| FD-3093 | Fashion Design Studio-II | 0 | 1 | 1 |
| TP-3082 | Textile Processing | 2 | 0 | 2 |
| TD-3099 | Textile(Print) Design | 1 | 1 | 2 |
| TD-3092 | Knit Design & Technology | 1 | 1 | 2 |
| | TOTAL | 8 | 9 | 17 |

6th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------|--|----------|----------|--------------|
| FD-3094 | Pattern & Grading-III | 1 | 1 | 2 |
| FD-3095 | Fashion Design Studio-III | 0 | 1 | 1 |
| SEW-3092 | Sewing-IV | 1 | 1 | 2 |
| FD-3096 | Advance Digital Design-II | 0 | 2 | 2 |
| DRP-3092 | Draping-IV | 0 | 2 | 2 |
| TMM-354 | Fashion Business | 3 | 0 | 3 |
| FD-3098 | Advanced Fashion Costume & Forecasting | 2 | 0 | 2 |
| FD-3097 | Photography | 1 | 1 | 2 |
| | TOTAL | 8 | 8 | 16 |

7th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------|---------------------------------------|----------|----------|--------------|
| HU-3097 | Research Methodology & Dissertation | 3 | 0 | 3 |
| FD-4091 | Advanced Computer Aided Patterns | 1 | 1 | 2 |
| FD-4092 | Advance Fashion Design | 1 | 1 | 2 |
| SEW-4091 | Sewing-V | 1 | 1 | 2 |
| DRP-4091 | Draping-V | 0 | 2 | 2 |
| TD-4099 | Embroidery & Embellishment Techniques | 1 | 1 | 2 |
| SS-2092 | Introduction to Sociology | 0 | 0 | 2 |
| | TOTAL | 9 | 6 | 15 |

8th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|---------|--|----------|-----------|--------------|
| FD-4093 | Final Collection (Illustration, Pattern) | 0 | 6 | 6 |
| FD-4094 | Final Collection (Draping, Sewing, Accessory Design) | 0 | 6 | 6 |
| HU-1091 | Islamic Studies/Ethics | 2 | 0 | 2 |
| HU-3096 | Foreign Language | 2 | 0 | 2 |
| | TOTAL | 4 | 12 | 16 |

| | | | |
|--|---|---|-----|
| Internship during summer holidays | 0 | 1 | 1 |
| Total Credits for Bachelor of Fashion Design | | | 133 |

Faculty Members in Department of Textile & Clothing

Engr. Muhammad Qamar Khan

Assistant Professor / Chairman
Doctor of Engineering in Textiles,
Shinshu University Japan



Prof. Dr. Khalid Pasha

Ph.D Textiles
University of Manchester UK



Dr. Arsalan Ahmed

Assistant Professor
Ph.D in Textile Advanced Materials
Zhejiang Sci-Tech University, China



Dr. Danish Hassan

Assistant Professor
Ph.D in Mathematics
Federal Urdu University of Arts, Sciences
& Technology Karachi(FUUAST Karachi)



Mr. M. Ayaz Shaikh

Assistant Professor
MS Textile & Polymer Sciences
Pakistan



Engr. Mohsin Ali

Lecturer / Coordinator
(Textile Engineering)
M.E
NED



Engr. Umair Alam

Lecturer / Coordinator
(Textile Management & Marketing)
MEM Textile
NED UET Karachi



Faculty Members in Department of Textile & Clothing

Mr. Danial Mubarak

Lecturer / Coordinator (Fashion & Design)
MS Fashion & Marketing
PIFD Lahore



Ms. Shahida Hameed

Lecturer
MS Physics
MZU Multan



Engr. Zarka Shehzadi

Lecturer
MS Textile Engineering
NTU Fsd



Engr. Nabi Bux

Lecturer
ME Textile
MUET Jamshoro



Engr. Haleema Shahid

Lecturer
MS Textile Engineering
NTU Fsd



Ms. Saliha Javid

Lecturer
MBA
Bahria University Karachi



Engr. Shoaib Masood

Lecturer
MBA
IQRA University Karachi



Faculty Members in Department of Textile & Clothing

Mr. Akbar Ali

Lecturer
Fine Arts NCA(National College of Arts)



Mr. Sajawal Ur Rehman

Lecturer
MS Computer Science
COMSATS University Lahore



Engr. Abdul Salam

Lab Engineer Textile Engineering
MS Advanced Material Engineering
NTU Faisalabad



Engr. Tufail Hassan

Lab Engineer
MS Textile Engineering
NTU Fsd



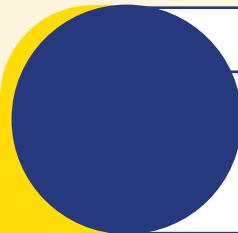
Engr. Nafees Hassan

Lab Engineer
MS Textile Engineering (In Progress)



Mr. Faisal Rehman Khan

Lecturer
M.Phil English





Department of

POLYMER ENGINEERING

DEPARTMENT OF POLYMER ENGINEERING

Mission Statement

The mission of Polymer Engineering Program is to provide an environment that nurtures critical thinking and education of innovators and leaders to serve society as a center of learning in engineering of materials such as Plastics, Rubbers, Composites, etc.

History

(formerly known as Plastics Technology Centre) was established by Government of Pakistan at Karachi in 1986. The Centre was initially supported by UNIDO/UNDP by providing machinery & technical experts, later on Government of Japan through JICA up-graded the processing and testing facilities.

Brief Introduction

The Program

The discipline of Polymer Engineering involves studying relationships that exist between structure and properties of polymeric material. An understanding of structure-properties correlations develops a better understanding in designing & fabrication of plastic products.

The four-year (eight semester) program comprises of lectures and practicals designed to fulfill requirements of the plastics industry. Industrial Internship are a mandatory degree completion requirement, along with Final-Year Design Project which are usually industry based, provide an opportunity & develop skill in students to apply engineering principles learned during the Program. Seminars conducted by subject experts provide an exposure to latest technology trends in the field of polymers.

Besides academic program, short courses, seminars and testing services are offered to the industry.

The Department aims to develop technical know-how and professional competence in people involved in the manufacture of plastic products through better utilization of manpower, material and machinery. The industrial scale processing machines gives our students a hands-on exposure to real-life production operations and issues involved in mass production operations.

The Department can truly boast as a premiere facility in offering education and industrial services to the plastics processing & consumer industry across Pakistan.



Career Prospects

The Polymer Engineering graduates have a bright prospects in fibers & textiles, plastics and rubber processing, composites, packaging materials, coatings, paints, adhesives and sealants, In addition to that R&D of textile fibers, textile auxiliaries, medical textiles, pharmaceuticals, technical textiles, etc. Students are trained in such a way that they can adopt any field of polymers and related areas.

Facilities

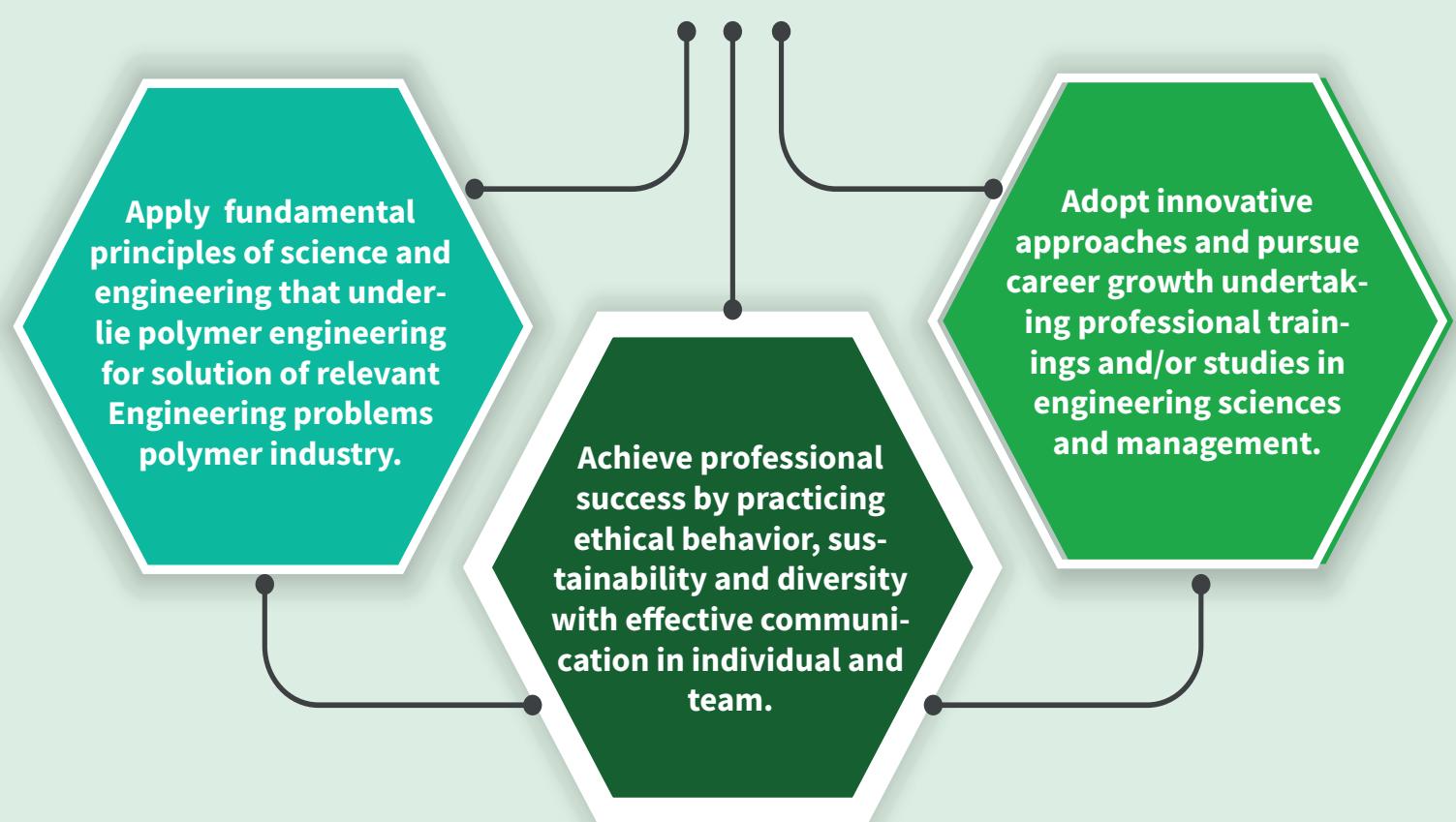
The Polymer Engineering Department is housed in two purpose-built blocks comprising of a total covered area is 60,000 sq.ft. Testing & Processing laboratories are located in both of the blocks. A state of the art auditorium with a seating capacity of 250 persons is available to conduct seminars and student activities

Laboratory Facilities

- Polymer Physical Testing Laboratory
- Polymer Mechanical Testing Laboratory
- Polymer Science & Chemistry Laboratory
- Polymer Analytical Testing Laboratory
- Polymer Processing Laboratory (I & II)
- Instrumentation & Control Laboratory
- Electrical & Electronics Laboratory
- Computer Laboratory
- CAD Laboratory
- Physics Laboratory
- Engineering Mechanics Laboratory
- Workshop Processes Laboratories



BS Polymer Engineering Program Educational Objectives (PEOs)



Program Learning Outcomes (PLOs)

By the time of graduation, we inculcate the following outcomes into our students

| Attributes | Program Learning Outcomes (PLOs) |
|---------------------------------|--|
| Engineering Knowledge | An ability to apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems. |
| Problem Analysis | An ability to identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences. |
| 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. |
| Investigation | An ability to investigate complex engineering problems in a methodical way including literature survey, design and conduct of experiments, analysis and interpretation of experimental data, and synthesis of information to derive valid conclusions. |
| Modern Tool Usage | An ability to create, select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling, to complex engineering activities, with an understanding of the limitations. |
| The Engineer and Society | An ability to apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice and solution to complex engineering problems. |
| Environment and Sustainability | An ability to understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development |
| Ethics | Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice. |
| Individual and Team Work | An ability to work effectively, as an individual or in a team, on multifaceted and /or multi disciplinary settings. |
| Communication | An ability to communicate effectively, orally as well as in writing, 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, make effective presentations, and give and receive clear instructions. |
| Project Management | An ability to demonstrate management skills and apply engineering principles to one's own work, as a member and/or leader in a team, to manage projects in a multi disciplinary environment. |
| Lifelong Learning | An ability to recognize importance of, and pursue lifelong learning in the broader context of innovation and technological developments |

BS POLYMER ENGINEERING

1st Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------|-------------------------------------|-----------|----------|--------------|
| PE-1101 | Introduction to Polymer Engineering | 3 | 0 | 3 |
| ENG-1091 | Functional English | 3 | 0 | 3 |
| MA-1001 | Calculus | 3 | 0 | 3 |
| HU-1091 | Islamic Studies/Ethics | 2 | 0 | 2 |
| PH-1001 | Physics-I | 2 | 1 | 3 |
| HU-1092 | Pak Studies | 2 | 0 | 2 |
| | TOTAL | 15 | 1 | 16 |

2nd Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------|-------------------------------------|-----------|----------|--------------|
| PE-1102 | Structure & Properties of Polymers | 3 | 0 | 3 |
| CH-1001 | Chemistry- I | 2 | 1 | 3 |
| CS-1071 | Introduction to Computing | 2 | 1 | 3 |
| ME-1121 | Engineering Drawing | 0 | 1 | 1 |
| SS-1094 | Social Intelligence & Soft Skills | 3 | 0 | 3 |
| ENG-1092 | Communication & Presentation Skills | 3 | 0 | 3 |
| | TOTAL | 13 | 3 | 16 |

3rd Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|-----------|------------------------------------|-----------|----------|--------------|
| PE-2106 | Polymer Synthesis | 2 | 1 | 3 |
| MA-1002 | Engineering Math-I | 3 | 0 | 3 |
| PE-2102 | Engineering Thermodynamics | 2 | 0 | 2 |
| PE-2104 | Unit Operations | 2 | 1 | 3 |
| STAT-4001 | Statistical Methods in Engineering | 3 | 0 | 3 |
| CH-2001 | Chemistry-II | 2 | 1 | 3 |
| | TOTAL | 14 | 3 | 17 |

4th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|---------|-------------------------------------|-----------|----------|--------------|
| ME-2122 | Mechanical Engineering Fundamentals | 2 | 1 | 3 |
| PE-2103 | Heat and Mass Transfer | 3 | 0 | 3 |
| PH-2101 | Physics-II | 2 | 1 | 3 |
| PE-2101 | Advanced Polymers | 3 | 0 | 3 |
| PE-2107 | Paints and Coatings | 3 | 0 | 3 |
| CS-3071 | Computer Programming | 2 | 1 | 3 |
| | TOTAL | 15 | 3 | 18 |

5th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|-----------------------|---|-----------|----------|--------------|
| PE-3101 | Polymer Additives & their Compounding | 2 | 0 | 2 |
| MA-2001 | Engineering Math-II | 3 | 0 | 3 |
| PE-3102 / PE-31010 | Polymer Reaction Engineering / Reinforcements in Composite Materials | 3 | 0 | 3 |
| PE-4103 | Polymer Processing | 3 | 1 | 4 |
| EE-3001 | Electrical & Electronic Systems | 2 | 1 | 3 |
| PE-3104 | Polymer Rheology | 3 | 0 | 3 |
| | TOTAL | 16 | 2 | 18 |

6th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|-----------------------|--|-----------|----------|--------------|
| HU-3091 | Technical Writing | 3 | 0 | 3 |
| PE-3109 | Additive Manufacturing | 3 | 0 | 3 |
| PE-2105 / PE-31011 | Energy Engineering / Composite Design and Manufacturing | 2 | 0 | 2 |
| CS-3073 | CAD for Polymer Engineering | 2 | 1 | 3 |
| PE-3107 | Elastomer Technology | 3 | 0 | 3 |
| PE-3108 | Polymer Composites | 3 | 0 | 3 |
| | TOTAL | 16 | 1 | 17 |

7th Semester

| Code | Course Title | Theory | Lab | Credit Hours |
|----------------------|---|-----------|----------|--------------|
| PE-4101 | Senior Design Project-I | 0 | 3 | 3 |
| PE-4102 | Polymer Characterization Techniques | 3 | 1 | 4 |
| MGT-4084 | Operations Management / Procurement Management | 3 | 0 | 3 |
| PE-3103 | Mould & Machine Design | 2 | 1 | 3 |
| SS-4095 | Personality Development & Character Building | 3 | 0 | 3 |
| PE-4104 / PE-4109 | Synthetic Fibre Engineering / Mechanics of Composite Materials | 2 | 0 | 2 |
| | TOTAL | 13 | 5 | 18 |

8th Semester

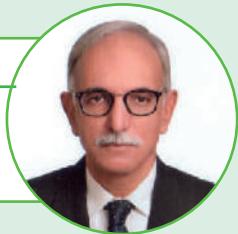
| Code | Course Title | Theory | Lab | Credit Hours |
|----------|---|-----------|----------|--------------|
| PE-4110 | Senior Design Project-II | 0 | 3 | 3 |
| PE-4105 | Recycling of Polymers | 2 | 0 | 2 |
| PE-4106 | Process Control & Instrumentation | 2 | 1 | 3 |
| MGT-4089 | Quality Management Systems / Entrepreneurship | 3 | 0 | 3 |
| PE-4107 | Environmental Health & Safety Engineering | 2 | 0 | 2 |
| PE-4108 | Polymer Plant Design | 2 | 0 | 2 |
| | TOTAL | 11 | 4 | 15 |

| | | | |
|---|-----|---|---|
| Industrial Internship (at least 6 weeks during summer holidays) | 0 | 1 | 1 |
| Total Credits for BS Polymer Engineering | 135 | | |

Faculty Members in Department of Polymer Engineering

Engr. Arshad Faruqui

Associate Professor / Chairman
ME Chemical (Polymer)
USA



Dr. S. Saqib Shams CEng. MIMechE

Assistant Professor
Ph.D in Polymer Chemistry & Physics
Chinese Academy of Sciences



Engr. Mubeen Ahmed

Lecturer
MS Chemical Engineering
UET Lahore



Engr. Faizan Aslam

Lecturer
MS Polymers
Germany



Engr. Muhammad Umair Zia

Lab Engineer
BE Polymers
Hamdard University, Karachi



Mr. Tariq Jamal

Associate Professor
M.Sc Chemistry
Karachi University



Dr. Akbar Khan

Assistant Professor
Ph.D in Polymer Chemistry
Zhejiang University China



Engr. Muhammad Umair Israr

Lecturer
MS Polymers
Scotland UK



Engr. Fawad Hassan

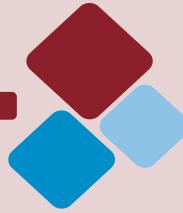
Lab Engineer
BE Polymer
NTU Fsd



HOW TO APPLY



Eligibility Criteria for Admission



BS Textile Engineering

BS Polymer Engineering

Eligibility Criteria

The applicants must have one of the following qualifications with overall score of at least 60%.

- a. F.Sc. (Pre-Engineering)
- b. Three A-Levels (Physics, Chemistry and Mathematics) and Eight O-Levels.

Admission Criteria

Admissions to the Engineering Programs of the University are decided on the basis of

- | | |
|------------------------------------|-----------------|
| Marks of F.Sc. Pre- Engg. (Part-I) | (65% weightage) |
| Marks of Matriculation | (35% weightage) |

Note:

Above mentioned Admission Criteria may be revised for this year intake Fall-2020 as per the directions of PEC and it will be communicated through NTU website.

Candidate may apply for provisional admission if they have completed one of the above mentioned qualifications but waiting for their results.



Bachelor in Fashion Design

Eligibility Criteria

Intermediate (FA, F.Sc, I.Com, ICS) or equivalent with minimum 45% marks.

Admission Criteria

- | | |
|--------------------------------|-----------------|
| Marks of Intermediate (Part-I) | (65% weightage) |
| Marks of Matriculation | (35% weightage) |

Note: Please note that passing of University Drawing Test is compulsory for the admission of Design Program.



BS Textile Management & Marketing

Eligibility Criteria

Intermediate (FA, F.Sc, I.Com, ICS) or equivalent with minimum 45% marks.

Admission Criteria

- | | |
|--------------------------------|------------------|
| Marks of Intermediate (Part-I) | (100% weightage) |
|--------------------------------|------------------|





Fee Structure for Undergraduate Programs

| Programs | Total one time dues at Admission (Rupees) | Tution Fee per semester (Rupees) | Total Other Charges per semester (Rupees) | Total Dues of 1st semester (Rupees) | Dues from 2nd to 7th per semester (Rupees) | Total Dues of 8th semester with Degree Fee(Rupees) |
|-----------------------------------|---|----------------------------------|---|-------------------------------------|--|--|
| BS Textile Engineering | 32,350 | 30,000 | 12,000 | 74,350 | 42,000 | 47,000 |
| BS Polymer Engineering | 32,350 | 30,000 | 12,000 | 74,350 | 42,000 | 47,000 |
| BS Textile Management & Marketing | 32,350 | 30,000 | 12,000 | 74,350 | 42,000 | 47,000 |
| Bachelor of Fashion Design | 32,350 | 30,00 | 18,000 | 80,350 | 48,000 | 53,000 |

Details of one time Admission Dues & Other Charges

| Others Charges (Included in above mentioned 1st Semester Dues) | Rupees |
|---|----------|
| Admission Fee (Once at the time of Admission) | 20,000/- |
| Certificate Verification Fee (Once at the time of Admission) | 2,000/- |
| Processing Fee (Once at the time of Admission) | 5,000/- |
| University Security (Refundable) | 5,000/- |
| Red Crescent Donation (Once at the time of Admission) | 50/- |
| University Card Fee (Once at the time of Admission) | 300/- |
| Library Fee (Per semester) | 3,000/- |
| Examination Fee (Per semester) | 3,000/- |
| Medical Fee (Per semester) | - |
| Transport Fee (Per semester) | 3,000/- |
| Student Activity Fund (Per semester) | 2,000/- |
| Endowment Fund (Per semester) | 1,000/- |
| Annual Exhibition Fee (Per semester) (Only For Fashion Design) | 6,000/- |
| Degree Fee (Once in the last Semester) | 5,000/- |

Note: 1/3rd of the Tuition Fee along with Examination fee will be charged in summer semester.

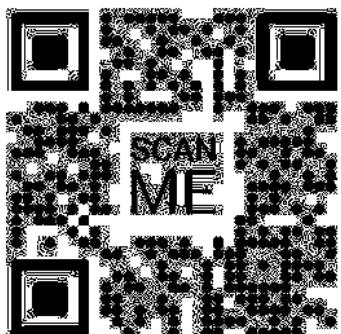
How To Apply



**TO APPLY
ONLINE**

GO TO
www.ntu.edu.pk/kc

TO APPLY ONLINE



*The Admission Office,
National Textile University(Karachi Campus)
2/1- Sector 30 Korangi Industrial Area
Karachi Pakistan*

Phone: 021-35063024 & 35064112

Fax: 021-35060373

Cell: 0331-2613776

The completed application form with required supporting documents should reach the Admission Office at National Textile University on or before the notified closing date. Applicants are advised to ensure that the application is complete in all respect with required documents. Which are

1. One recent passport size photograph with light blue background.
2. One attested copy of each of Matriculation, F.Sc. or Equivalent result cards.
3. The candidates waiting for their results will have to submit their marks sheet immediately after the declaration of results. If the candidate fails to meet the basic eligibility criteria his/her candidature will be cancelled.
4. Attested copy of National Identity Card or B-Form.



Refund Policy

Students who desire to leave will be refunded the dues as per existing refund policy of HEC, Islamabad according to the following rules:

1. If any student applies for the refund of university dues paid by him/her up to 7th day of commencement of classes, he/she will be refunded full (100%) deposited dues except the admission fee of Rs. 20,000/- & Processing fee Rs. 5,000/- (Subject to clearance from all the departments).
2. If any student applies for the refund of deposited university dues from 8th to 15th day of commencement of classes, then he/she will be refunded security deposited and half (50%) fee (Subject to clearance from all the departments).
3. If any student applies for the refund of paid university dues from 16th day of the commencement of classes, only his/ her amount of security will be refunded (Subject to clearance from all the departments).

Note: Percentage of fee shall be applicable on all components of fee, except for security and admission charges.

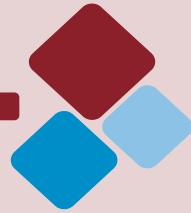
Timeline shall be calculated continuously covering both weekdays and weekend.

University Merit Scholarships

In order to create a competitive academic environment the University management has introduced a new scheme of Merit Scholarships based on the following parameters:-

1. University merit scholarships would be granted on the basis of single semester result. The minimum requirement for the grant of Merit Scholarship will be 3.50 GPA.
2. First position holder of each section of a semester will be granted full exemption from the tuition fee for his/her next semester.
3. Second position holder of each section of a semester will be granted 75% exemption from the tuition fee in his/her next semester.
4. Third position holder of each section of a semester will be exempted from 50% tuition fee in his/her next semester.
5. In case two or more students having same GPA, then decision will be made on percentage marks of the students. If the percentage marks are also found equal of two or more students then both or more students will be eligible for the grant of university merit scholarships.





Contact Numbers

Director Office

Tel: 021-35066390

Registrar Office

Tel: 021-99333896

Department of Textile & Clothing

Tel: 021-99333892

Department of Polymer Engineering

Tel: 021-99333898



For Information please contact
The Admission Office

NATIONAL TEXTILE UNIVERSITY

2/1 Sector 30, Korangi Industrial Area
Karachi Pakistan

Tel: 021-35063024 & 35064112

Fax: 021-35060373

info@ntu.edu.pk

www.ntu.edu.pk/kc/

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