NTU

INNOVATE AND LEAD

NATIONAL TEXTILE UNIVERSITY

UNDERGRADUATE PROSPECTUS-2023

041-9230081-90
www.ntu.edu.pk

In the name of Allah, the most beneficent, the most merciful

Prof. Dr. Tanveer Hussain

WELCOME
MESSAGE FROM
RECTOR

Role of University is immensely important in creating 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.

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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 (then Lyallpur) and provided sixty-two acres of state owned land free of cost. Kohinoor Industries, Colony Textile Mills, Dawood Foundation and Lyallpur Cotton Mills provided funds to the tune of Rs.2.5 millions, which were utilized for the construction of building and provision of other infrastructure.

The Government of U.K. provided the bulk of equipment and machinery, along with the services of experts under Colombo Plan. Field Marshall Muhammad Ayub Khan, the then President of Pakistan, laid the foundation stone of the Institute, on the 12th of October 1959.

A Board of Trustees, with the Minister of Industries as chairman and nominees of the donor companies as members was constituted to manage the affairs of the Institute. In order to meet the recurring expenses of the Institute a Cess was levied by the government on the Textile industry of Pakistan. 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.

MISSION

The Mission of National Textile University is to contribute towards sustainable socioeconomic 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 socio-economic development of the country in general and textile & clothing industry in particular, with outstanding education, research and ecofriendly innovation.

CORE **VALUES**

National Textile University's core values are as given below:

Integrity: Conducting ourselves with honesty, transparency, fairness and the highest Ethical standards in all aspects of our activities.

Merit: Maintaining rigorous procedures for undergraduate and graduate admissions & award of grades; and for faculty & staff hiring, promotions and tenure decisions.

Innovation: Fostering ingenuity, creativity and development of new ideas for the benefit of industry and society.

Excellence: Endeavoring to achieve the highest standards of scholarship, teaching, research and institutional effectiveness.

OUR **CULTURE**

Progressive: Striving for continual improvement in academic quality and research excellence.

Ambitious: Striving to become amongst the top National universities along with good international standing in teaching and research.

Collaborative: Striving for synergistic partnerships within university departments, with other universities and with industry.

ADVISOR STUDENTS
STUDENT'S AFFAIRS OFFICE

Advisor Students Office/Office of Student's Affairs provides a broad range of services and support to NTU students, including leadership development, residential programs, public service, career exploration and community engagement through 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

Development and implementation of various activities and services that focus on the non-academic aspects of the student's life in the university such as the acquisition of values and skills for a lifelong learning.

Coordination and supervision of student Discipline, Coaching, Student Sports, Hostel/ Accommodation and other Co-curricular activities.

To represent student point of view on campus issues.

Student's Co-curricular event/activity calendar, student bulletins, magazines, etc.

To handle the matters of student bodies / organizations/ Societies and helping them in arranging their functions/ extra-curricular activities.

On Campus Student Recruitment Drives/Job Placement.

Students Societies

Technical Societies

- NTU Society of Textile Spinners
- NTU Society of Textile Weavers
- NTU Society of Textile Knitters
- NTU Society of Textile Chemists
- NTU Society of Garment Manufacturers
- NTU Society of Textile Apparel & Merchandizing
- NTU Society of Polymer Engineers
- NTU Society of Textile Technologist
- NTU Society of Textile Designers
- NTU Society of Fashion Designers
- NTU Society of Visual Arts
- NTU Society of Entrepreneur
- NTU Society of Executive
- NTU Society of Textile Management & Marketing
- NTU Society of Computer Science
- NTU Society of Software Engineering
- NTU Society of Information Technology
- NTU Society Engineers Scholars
- NTU Society of CS Scholars
- NTU Society of Mathematician
- NTU Clothing Society
- NTU Society of Physicist
- NTU Society of Business Research & Development
- NTU Society of Interpersonal & Communication Skills

Extracurricular Societies

- NTU Literary Society
- NTU Debating Club
- NTU Sports Society
- NTU Wings Society
- NTU Iqbal Society
- NTU Road Safety Club Society
- NTU Character Building Society
- NTU Health & Blood Donation Society
- NTU Media Club & Photography Society
- NTU Society of Nature & Environmental Sustainability
- NTU Quran Society
- NTU Community Services
- NTU Kavish Magazine Society
- NTU Arts & Culture Society
- SET Counselling Club
- NTU Internship Program

Student 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.

Two full time Sports Officers, Physical Trainee Officer (PTI) and a gym trainer are available for guidance / training of students as well as managing any type of sports activity.

Sports Facilities

- Athletics
- Bed Minton
- Table Tennis
- Hockey
- Volley Ball
- Boys Gym Club
- Cricket Football
- Girls Gym Club
- Indoor Hostel Games
- Squash Court
- A jogging track alongside the cricket ground for regular users

Sports Activities

- Continuous sports' activities
- Intra-departmental Sports Competitions
- Inter Department Sports Competitions
- HEC Games Participation
- Friendly Matches with other universities
- Sports Clubs of Cricket, Hockey and Badminton

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:

- HEC Need Based Scholarship Scheme
- University Merit Scholarship
- Industry Scholarship (on availability)
- PEEF Master Level Scholarship
- PEEF Undergraduate Level Scholarships
- Alumni Scholarships
- MORA Scholarships
- Faisalabad Development Trust Scholarships
- Killa Gift Fund
- National Bank of Pakistan (Interest Free Loan)
- Ihsan Trust, Karachi Qarz-e-Hasna
- NEST (National Endowment Fund for Talent) for MS & PhD
- NEST (National Endowment Fund for Talent) for Arts & Culture Programs
- CHT Scholarship Program
- Interloop Scholarship Award for BS Thesis/Internship in Turkish University
- Interloop Scholarship Program
- Kamal Mills Scholarship Program
- CBL Scholarship Program
- Batool Muzaffar Scholarship Program
- i-Textiles Research Fellowship Program
- Tanveer Mir Scholarship Program (TMSP)
- Midas Safety R&D Fellowship (MSRDF) Program

Graduate Employment & Career Development Services

This office also locates the jobs in market and places the employment opportunities for its graduates for all disciplines. This office manages the information regarding graduate employment opportunities, supporting students in finding employment, working with managers and acting as the liaison between graduates and prospective employers.

Students are encouraged to contact this office with questions regarding their employment issues after the completion of their study. This office organize on-campus job hunting drives. A Deputy Director is delicately working on job placement.

Facilities for Students

Transport Service

The University provides pick and drop services to the students from the campus to the different parts of the city according to the approved routes.

Student Accommodation

The University is a residential institution and has facilities to accommodate majority of students on the campus. There are two hostels for boys and an independent hostel for girls to accommodate about 500 students. Resident students are provided furnished accommodation comprising cubicles and dorms. Telephone lines are provided to every hostel. Each hostel is provided independent mess and common room.

Health Care

A clinic supervised by a devoted medical officer has been setup on the campus to provide health care facilities to students, employees & their dependent family members.

IT Centre

Established in 2008, IT Centre is centrally air-conditioned Building having 06 computer labs, Video Conferencing Room, meeting room and Faculty/ Staff offices. Department has following infrastructure and responsibilities.

- Management of Datacentre
- Fiber Optic Sites Connectivity
- Layer 03 Networks and Virtual LANs
- Active Directory Logins and Home Drives
- Controller bases Wireless Lan to Campus and Hostels
- Secure and high speed internet access through Firewalls
- Web Apps like Faculty Profiles, Course Evaluation
- Distributed Websites and Email Management

NTU Library

NTU Library is housed in a two-story building and holds a unique collection of almost Twenty-Seven Thousand information resources in textile engineering and allied disciplines. The library subscribed fourteen national and international textile journals in print format and has bound archives of core textile and applied sciences journals, some of them starting from 1918 to date. Electronic access to more than 40,000 peer reviewed titles is also available through HEC Digital Library Program. The library acquires a variety of resources in print, audiovisual and electronic formats to support study and research in the university and has a wide range of services, including borrowing, reference, user advisory, information literacy (IL), OPAC, photocopying, indexing, TOC alert etc.

NTU library is one of the few in the country that has implemented standardized integrated software for library automation. Library World, Version 3.02 developed by CASPR Inc., USA. The library provides electronic services through an electronic services lab that has ten computers, two scanners and three printers. The library web pages provide information about its staff, rules & regulations, information services, collection, NTU student's projects, CD Roms, virtual library links, etc.

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.

Services

National Textile University Library is providing excellent knowledge resources, services and facilities to fulfill the teaching, learning and research needs of its faculty members, students, staff and a large number of users belonging to the textile community in Pakistan.

Information Literacy/Continuing Education

The library is providing information literacy services to its patrons by organizing seminars and practical workshops to enhance the learning skills of students, researchers as well as faculty members. In this regard teachers/library community of different institutes has visited NTU library several times.

Library Hours

Library opens seven days a week according to the following schedule:

Monday Thursday	8:30 a.m. to 9:00 p.m.
Friday	8:30 a.m. to 4:40 p.m.
Saturday & Sunday	2:00 p.m. to 9:00 p.m.

There will be one-hour Prayer/Lunch break, as notified by the administration.

Borrowing Privileges

- Students/ Staff Members/ Teaching Assistant and Research Associate can borrow three books for 21 days.

- Faculty Members can borrow fifteen books for a semester or 90 days.
- Borrowing facility is not available to visiting faculty, NTU Alumni and students referred from other institution: however other library services are available accordingly.
- Some material, such as reference books, press clippings, CD-ROMs, current issue of periodicals, or any other publication marked as Reference/Reserved will not be circulated/issued.

Web OPAC

In 2011, the library has uploaded its data (books, journals, CDs, thesis and reports) on web. Now the users can search their required title/ material everywhere, even through their cell phones at library web portal. www.ntu.edu.pk/library

HEC Digital Library

Since the year of 2008, National Textile University Library has subscribed more than 11,600 peer reviewed leading international journals and 40,000 online books available through National Digital Library Program of Higher Education Commission, Islamabad. Users can browse, search and link to find the exact information looking for, fast.

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. 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.

Department of Textile & Clothing

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.

Program Offered

The Department of Textile & Clothing offering following four year degree programs

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

Department of Polymer Engineering

The Department of Polymer Engineering involves studying relationships between structures and properties of polymeric materials. Understanding of structures & properties correlation develops a better understanding in designing & fabrication of polymer-based products. The presence industrial scale processing machines in our laboratories, provides our students a hands-on exposure to real-life production operations and issues involved in mass production operations.

The four year (eight semesters) undergraduate program is designed in way that it should address the majority of requirements of the polymer industry. Industrial Internship are a mandatory requirement to complete the degree, in addition to Final-Year Design Project which are usually industry based. this creates and environment to nurture skills in students to apply engineering knowledge base learned during the Program to solve the complex problems in polymer industry. In addition, professional development seminars are conducted by subject experts to provide an exposure to latest technology trends in the field of polymers.

Program Offered

The Department of Polymer Engineering offering following four year degree program

- BS Polymer Engineering

ACADEMIC RULES

1. Semester Duration

There shall be two semesters 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 subjects except Islamic Studies and Pakistan Studies, for which medium shall be either Urdu or English.

2.2 Non-Muslim students 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	9th week
Classes	8 weeks
Final Examination	18th week
Semester Break	2 weeks

Internships/Makeup courses/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 (four years) and maximum of 12 regular semesters (six 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 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 voce 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 (six courses).

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

8.3 Students can improve (F, D, D+) upto 6 credit hours (two courses) during summer semester.

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 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 what so ever for any reason.

10.3 Failure to meet the attendance requirements shall render the student ineligible for 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 And Evaluation

11.1 There shall be two 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 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

"W" stands for withdrawn course and has no grade point equivalent and credit hours for withdrawn courses will not be count towards the credit hours taken in semester.

"I" stands for incomplete course.

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.

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 a 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 repeat 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 Rules

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 exam, 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 Calender
- 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.

SCHOOL OF ENGINEERING & TECHNOLOGY

- **Department of Textile Engineering**
- **Department of Materials**
- **Department of Textile Technology**
- **Department of Clothing**

DEPARTMENT OF TEXTILE ENGINEERING

Mission

To develop the human resource in textile sector having required competence of industrial management, process optimization, research, product development and industrial management.

Brief Introduction

The textile industry plays an important role for the economic growth of Pakistan through significant contribution to industrial exports. Department of Textile Engineering is the oldest and largest department of the university which was established in 1959. The department offers a four-year degree program through a range of courses covering all the areas of textile manufacturing.

It has different sections such as Yarn Manufacturing, Fabric Manufacturing (woven and knitwear), Textile Processing and Garments Manufacturing. Each section has independent labs equipped with state of the art equipment. The department provides production, testing and consultancy services to the textile industry besides the teaching/training activities. Research and development projects are also carried out for different sectors of the textile industry. The theoretical knowledge is strengthened with extensive practical work.

The department envisions producing successful graduates who will be capable of leading the fast paced changing scenarios of today's textile industry through intellect, innovation and values. Research and educational activities are conducted by proficient, devoted and well-qualified faculty and staff members having ample experience in various fields of textile manufacturing.

An active interaction with industry is the main feature of our Teaching Philosophy. Industrial visits, Internships, symposiums, participation in workshops and industrial exhibitions are frequently carried out for learning of student.

Facilities

The Department of Textile Engineering has following laboratories:

- Yarn Manufacturing Lab
- Weaving Lab
- Textile Processing Lab
- Garments Manufacturing Lab
- Knitting Lab

Yarn Manufacturing Lab Facilities

Yarn Manufacturing laboratory consisting of modern, semi-modern as well as conventional machinery including Toyoda-Ohara Hergeth Blow Room, Howa CM 80 Card, Platts Card, Flat Clipping Machine, Toyoda DYH 500 C Draw Frame, Rieter RSB D40 Draw Frame, Toyota CM- 100 Comber, Toyoda FL 16 Simplex, Platts MS 2 Simplex, Howa UA-330 G Ring Frame, Toyoda RY-5 Ring Frame with compact attachment, Edera Mini-Ring, Rieter Comforspin K-44 Compact Spinning Frame with multi-core and slub attachments.

Peter Wolters Cots Grinding Machine, Murata Link Coner with Splicer and Uster Quantum-2 Yarn Clearer, Murata Coner with Knotter, Direct Twist Machine (2C6 & 2D6), Schlafhorst Autocoro Open-end Rotor Machine, Bradford Rotor Spinning, Sanco Compressor, Hitachi Compressor, Toshiba Compressor, Kamitsu Classimat, Stalybridge Wrapping Drum, Stalybridge Wrapping Reel, Shirley Top Roller Eccentricity Tester, Electronic Sartorius-GM 152 Weighing Balance, Avery Weighing Balancer for Laps, Lux Meter Testo 545 Testo 425 Air Flow Meter and Spinntester (core yarn machine).

Twisting and doubling machine have provision of cabling and covering of yarns.

The sample spinning machine (Laycock Textile) can process 3-5 gram fiber to manufacture yarn of 6-40 Nec.

Weaving Lab Facilities

The Fabric Manufacturing Section has excellent laboratory facilities, including the latest air-jet/water-jet weaving machines to the conventional shuttle looms, semi-automatic looms, back process machinery, and knotting machine. A complete line of

sampling setup, including single-end sizing, sample warping, and sample weaving machines with dobby and jacquard shedding systems is also available. The Section has the facility of Computer- Aided Design (CAD), including Nedgraphics ® and Scott weave for the simulation of fabric structure and designing. A number of testing instruments are also available to test the different fabric parameters.

Textile Processing Lab Facilities

Textile processing lab has been furnished with lab scale equipment for processing of yarn, fabric (woven and knit wear) and garments. The equipment for yarn dyeing comprises of sky padder, cone dyeing and package dyeing. The processing of fabric can be carried out at range of jigger machines, winch, soft flow, pad thermosole, pad steam dyeing machine, flatbed printing and rotary printing machine. The addition of digital printing machine has enhanced the strength of lab. The newly acquired latest equipment for denim garments processing through core and ozone technology along with hydroextractor, spraying booth and curing oven is the wonderful addition to enhance the technical skills of students. The equipment for testing of finished fabric are also available in the lab.

Garment Manufacturing Lab Facilities

The section of Garment Manufacturing provides outstanding laboratory facilities that can be compared with any renowned national or international university. Sewing labs are equipped with almost all different types of industrial sewing and pressing machines used in apparel production and research. Computer Aided Designing (CAD) lab is the state of the art. It contains 3D Body Scanner, 2D CAD (Tuka & Gerber), 3DCAD (Gerber) Digitizer & Plotter. Our lab is the only lab in Pakistan which has a 3D Body Scanner for taking body measurements.

In addition to that Computer Aided Manufacturing (CAM) has recently been established and a unit production system (UPS) has been added. Further, the section has Smart Clothing lab to carry out research in field of smart and intelligent textiles.

Knitting Lab Facilities

Section of Knitting has excellent laboratory facilities. A wide range of the latest knitting machines are available including flat and circular knitting machines. Hand driven flat knitting machines are also available which can produce a variety of designs, ranging from single jersey to jacquard. Shima Seiki SFG-I ultrafine seamless gloves knitting machine (fully automated)

and Lonati 144 GL (4") Socks knitting machine, Compression socks machine and Warp- Weft Machine are also available. Our labs are equipped with Computer Aided Design (CAD) facilities and a number of testing instruments to test different fabric parameters. Facility of fabric sample development and testing on all knitted fabrics are available.

The section has its own Resource Centre, having a collection of books, Journals, Manuals, research projects and helping material in soft form (CDs)

Undergraduate Program

The Textile Engineering Department offers four-year undergraduate BS Textile Engineering degree with specialization in Yarn Manufacturing, Weaving, Textile Processing, Garment

Manufacturing, Knitting and Technical Textiles. The annual intake of students is 200.

The undergraduate program offered by the sections is based on long established courses of studies, which are designed keeping in view the requirements of the industry. The undergraduate program carries enviable repute because of its quality and contents.

Research Area

The main focus of the research in the department revolves around conventional / modern techniques related to all domains of textile engineering right from yarn manufacturing to garments. The weaving section focuses on the design and development of novel 3D and technical fabrics. The faculty also focuses on machine designs, mechanical characterization of yarn & fabric, textile composites, and e-textiles. The coloration of textiles, their functionalization for enhanced characteristics and sustainable process and product developments are the main areas of research of textile processing. The development of smart and functional textiles, intimate apparel. Investigation of weft, warp and hosiery fabrics for comfort, protective, aesthetic and medical applications.

Career Prospects

The textile industry highly esteems the engineering and technological knowledge with the practical expertise of textile engineers. The industry realizes that its future depends upon the quality of its technology and competency of its managers. The quality of products and productivity play a vital role in the export of textile products. Our graduates play a crucial role in quality production, management and productivity. At present, more than 90% of textile industry are being headed by our textile graduates.

The textile engineers get jobs in production, quality control, research & development, process engineering, sale, corporate management, export houses and government-sponsored development organizations. They can also enroll for higher studies within Pakistan or abroad and can work as faculty members and researchers in the universities and research institutes.

Faculty Profile Department of Textile Engineering

Dr. Yasir Nawab

Associate Professor / Director / Dean
School of Engineering & Technology
Post Doctorate (France)
Ph.D. Mechanical Engineering (France)
MS Material & Textile Processing (France)
BS Textile Engineering (NTU, Faisalabad)

Dr. Munir Ashraf

Associate Professor / Chairman
Department of Textile Engineering
PhD Textiles (France)
MS Materials and Textile Processes (France)
B.Sc Textile Engineering (NTU, Faisalabad)

Section Coordinators

Dr. Abdul Basit

Associate Professor Co-ordinator
PhD Textile (UHA France)
MS Textiles & Materials (ENSAIT-ENSAM France) B.Sc Textile Engineering (NTU, Faisalabad)

Dr. Syed Talha Ali Hamdani

Associate Professor / Coordinator
Weaving Section
Ph.D. Textile Science & Technology, (U.K.)
BS Textile Engineering (BZU, Multan)

Dr. Amjed Javid

Assistant Professor /Coordrdinator
Textile Processing Section
PhD (Korea)
MS Textile Engineering (NTU, Faisalabad)
B.Sc Textile Engineering (NTU, Faisalabad)

Dr. Habib Awais

Assistant Professor/Coordinator
Knitting Section
PhD Aerospace Engineering (Malaysia)
MS Advanced Materials Engineering (NTU)
B.Sc Textile Engineering (NTU, Faisalabad)

Dr. Aqsa Imran

Assistant Professor/Coordinator
Garment Manufacturing
PhD Textiles (UHA, France)
MS Textiles (UMT, Faisalabad)
B.Sc Textile Engineering (NTU, Faisalabad)

Faculty Profile Department of Textile Engineering

Yarn Manufacturing

Dr. Zulfiqar Ali

Associate Professor / Director GSR PhD
Textile Engg. (MUET, Jamshoro)
B.Sc Textile Engg. (UET, Lahore)

Dr. Muhammad Bilal Qadir

Assistant Professor / Coordinator
Yarn Manufacturing Section
Post Doc in Organic & Nano Engg. (S. Korea)
PhD Organic & Nano Engineering (S. Korea)
MS Textile Engg. (NTU, Faisalabad)
B.Sc Textile Engg. (NTU, Faisalabad)

Dr. Hafiz Shahzad Maqsood

Assistant Professor (Spinning)
PhD Textile Engg. (Czech Republic)
M.Sc Industrial & Manufacturing Engg. (UET)
B.Sc Textile Engg. (UET, Lahore)

Dr. Muhammad Waqas Iqbal

Assistant Professor
Post Doctorate Industrial Engineering (S. Korea) PhD Industrial Engineering (S. Korea)
MS Industrial Engineering (S. Korea)
B.Sc Textile Engineering (NTU, Faisalabad)

Uzair Hussain

M.Sc Textile Engineering (NTU, Faisalabad)
B.Sc Textile Engineering (UET, Lahore)

Dr. Muhammad Ali Afzal

Assistant Professor
PhD Mechanical Engineering (France)
M.Sc Textile Engineering (NTU, Faisalabad)
B.Sc Textile Engineering (NTU, Faisalabad)

Dr. Muhammad Irfan

Assistant Professor
PhD Chemical Engg. (Italy)
MBA (MIS), Virtual University of Pakistan
M.Sc Textile Engineering (Italy)
B.Sc Textile Engineering (NTU, Faisalabad)

Faculty Profile Department of Textile Engineering

Weaving

Dr. Muhammad Zubair
Assistant Professor
Ph.D. Textile Techniques & Material Eng. (Czechia)
MS Textile Engineering (NTU, Faisalabad)
BS Textile Engineering (UET, Lahore)

Muhammad Ayub Asghar
Assistant Professor
MS / M.Phil The University of Manchester, (U.K)
BS Textile Engineering (NTU, Faisalabad)

Mr. Hassan Iftekhar
Lecturer
MS Mechanical Engineering (UOIT, Canada)
BS Mechanical Engineering (GIKI Topi, Pak)

Dr. Muhammad Umair
Assistant Professor
Ph.D. Textile Engineering (NTU, Faisalabad)
MS Textile Engineering (NTU, Faisalabad)
BS Textile Engineering (NTU, Faisalabad)

Danish Mahmood Baitab
Lecturer
MS Advanced Materials Engineering (NTU)
BS Textile Engineering (NTU, Faisalabad)

Dr. Mumtaz Ali
Assistant Professor
Ph.D. Organic and Nano-Engg. (South Korea)
MS Advanced Materials Engineering (NTU)
BS Textile Engineering (NTU, Faisalabad)

Faculty Profile Department of Textile Engineering

Knitting

Dr. Muzammil Hussain

Assistant Professor
PhD Mechanics & Energy Engineering (France)
M.Sc Advanced Materials Engineering (NTU)
B.Sc Textile Engineering (NTU, Faisalabad)

Mohammad Saqib

Lecturer
M.Sc Mechanical Engineering (UET Lahore)

Dr. Muhammad Haroon Rashid

Lecturer
Ph.D Electronics and Telecom
Engineering, Taltech University, Estonia

Dr. Waqas Ashraf

Lecturer
MS Advance Materials Engineering
BSc. Textile Engineering (NTU, Faisalabad)

Faculty Profile Department of Textile Engineering

Textile Processing

Dr. Kashif Iqbal

Assistant Professor
PhD (Heriot Watt University, UK) M.Sc Textile (Sweden)
B.Sc Textile Engineering (NTU, Faisalabad)

Dr. Abdur Rehman

Assistant Professor
PhD University of Leeds (UK)

Dr. Ahsan Nazir

Assistant Professor PhD
M.S Textile Engineering (NTU, Faisalabad)
B.Sc Textile Engineering (NTU, Faisalabad)

Dr. Usman Zubair

Assistant Professor
Post Doctorate (Italy)
PhD Chemical Engineering (Italy)
MS Textile/Polymer Process Engineering (Italy/Germany)
B.Sc Textile Engineering (NTU, Faisalabad)

Dr. Hafiz Affan Abid

Assistant Professor Ph.D (Czech Republic)
M.S Textile Engineering (NTU, Faisalabad)
B.Sc Textile Engineering (NTU, Faisalabad)

Syed Qummer Zia Gillani

Lecturer
M.S Textile Engineering (NTU, Faisalabad)
B.Sc Textile Engineering (NTU, Faisalabad)

Ms. Neelam Mughees

Lecturer
MS Electrical Engineering (FAST-NUCES)
BSc Electrical Engineering (UET Lahore)

Faculty Profile Department of Textile Engineering

Garment Manufacturing

Dr. Madeha Jabbar

Assistant Professor
PhD Textile Engineering (NTU, Faisalabad)
MS Textile Engineering (NTU, Faisalabad)
BS Textile Engineering (NTU, Faisalabad)

Dr. Fatima Iftikhar

Assistant Professor
PhD Textile Engineering (NTU, Faisalabad)
MS Textile Engineering (NTU, Faisalabad)
BS Textile Engineering (NTU, Faisalabad)

Dr. Shagufta Riaz

Assistant Professor
Ph.D. Textile Engineering (NTU, Faisalabad)
M.S Textile Advanced Materials Engineering (NTU, Faisalabad)

Dr. Shahood-u-Zaman

Assistant Professor
Ph.D. Smart Textile (France)

Saeed Akhtar

Lecturer
MS Marketing & Project Mgt. (Uni of Wales, U.K.)
BS Textile Engineering (NTU, Faisalabad)

BS Textile Engineering
Program Educational Objectives (PEOs)

After 3-5 year of Graduation, the graduates will be able to:

- Apply fundamental principles of science and engineering that underlie textile engineering for innovation and development.
- Be expert in application of textile engineering principles and modern IT tools to solve complex engineering problems of textile industry.
- Achieve professional success by practicing ethical behavior, sustainability, and diversity with effective communication in individual and team.
- Adopt innovative approaches and pursue career growth undertaking professional trainings and studies in engineering sciences and management.

Program Learning Outcomes (PLOs)

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

- An ability to apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
- 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.
- 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.

- 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.
- 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.
- 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.
- An ability to understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.
- Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.
- An ability to work effectively, as an individual or in a team, on multifaceted and /or multi disciplinary settings.
- 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.
- 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.

BS Textile Engineering (Yarn Manufacturing)

YARN MANUFACTURING

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-1101	Calculus & Analytical Geometry	3	0	3
PH-1101	Applied Physics	3	1	4
CH-1101	Applied Chemistry	3	1	4
HU-11011	Islamic Studies	2	0	2
TE-1111	Introduction to Textile Engineering	2	0	2
HS-1101	Occupation Health & Safety	1	0	1
	Total	**14**	**2**	**16**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
HU-1201	Pakistan Studies & Global Perspective	2	0	2
MA-1201	Linear Algebra	3	0	3
ENG-1092	Communication & Presentation Skills	0	2	2
CS-1201	Information & Communication Technologies	2	1	3
TE-1112	Textile Raw Materials	3	0	3
ME-1121	Engineering Drawing	0	1	1
PE-2102	Polymer Engineering Fundamentals	2	0	2
	Total	**12**	**4**	**16**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
TE-2111	Introduction to Yarn Manufacturing	3	1	3
TE-2112	Introduction to Fabric Manufacturing	3	1	2
ME-2122	Mechanical Engineering Fundamentals	2	1	3
CS-3072	Computer Applications in Engineering Design	1	2	3
TE-3112	Fibre Science	2	1	3
	Total	**11**	**6**	**17**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
SS-1094	Social Intelligence & Soft Skills	3	0	3
TE-2113	Introduction to Textile Chemical Processing	3	1	4
TE-2114	Introduction to Garment Manufacturing	3	1	4
EE-2201	Electrical & Electronics Engg. Fundamentals	2	1	3
TE-3114	High-Performance Fibers	3	0	3
	Total	**14**	**3**	**17**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-3101	Differential Equations	3	0	3
TE-3115	Color Science	2	0	2
YM-3101	Pre-Spinning Processes	3	1	4
YM-3111	Yarn Production	2	1	3
ENG-3091	Technical Writing	1	2	3
TE-3113	Mechanics of Fibrous Structures	2	1	3
	Total	**13**	**5**	**18**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
STAT-4001	Statistical Methods in Engineering	3	0	3
MGT-3201	Entrepreneurship	2	0	2
YM-3201	Post Spinning Processes	3	1	4
MGT-3211	Project Management	3	0	3
YM-4014	Advance Spinning Techniques	3	1	4
TE-3201	Technical Textiles Fundamentals	2	0	2
	Total	**16**	**2**	**18**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
TE-4111	Environmental & Social Compliances in Textiles	3	0	3
TE-4121	Recent Trends in Textiles	2	0	2
TE-4131	Textile Testing & Quality Control	2	1	3
SS-4095	Personality Development & Character Building	3	0	3
YM-4011	Spinning Calculation	3	1	4
YM-4012	FYDP-I	0	3	3
	Total	**13**	**5**	**18**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
MGT-4089	Instrumentation & Control	2	1	3
YM-4013	Textile Industry Utilities & Services	2	1	3
YM-4019	FYDP-II	0	3	3
YM-4014	Specialty Engineered Yarns	2	1	3
TE-4111	Denim Manufacturing & Process	3	0	3
	Total	**9**	**6**	**15**

Industrial Internship (4 weeks, 6 days/week, 8 hours/day during summer holidays) (TE-4151)	0	1	1
Total Credits for BS Textile Engineering (Yarn Manufacturing)	102	34	136

BS Textile Engineering (Weaving)

WEAVING

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-1101	Calculus & Analytical Geometry	3	0	3
PH-1101	Applied Physics	3	1	4
CH-1101	Applied Chemistry	3	1	4
HU-11011	Islamic Studies	2	0	2
TE-1111	Introduction to Textile Engineering	2	0	2
HS-1101	Occupation Health & Safety	1	0	1
	Total	**14**	**2**	**16**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
HU-1201	Pakistan Studies & Global Perspective	2	0	2
MA-1201	Linear Algebra	3	0	3
ENG-1092	Communication & Presentation Skills	0	2	2
CS-1201	Information & Communication Technologies	2	1	3
TE-1112	Textile Raw Materials	3	0	3
ME-1121	Engineering Drawing	0	1	1
PE-2102	Polymer Engineering Fundamentals	2	0	2
	Total	**12**	**4**	**16**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
TE-2111	Introduction to Yarn Manufacturing	3	1	3
TE-2112	Introduction to Fabric Manufacturing	3	1	2
ME-2122	Mechanical Engineering Fundamentals	2	1	3
CS-3072	Computer Applications in Engineering Design	1	2	3
TE-3112	Fibre Science	2	1	3
	Total	**11**	**6**	**17**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
SS-1094	Social Intelligence & Soft Skills	3	0	3
TE-2113	Introduction to Textile Chemical Processing	3	1	4
TE-2114	Introduction to Garment Manufacturing	3	1	4
EE-2201	Electrical & Electronics Engg. Fundamentals	2	1	3
TE-3114	High-Performance Fibers	3	0	3
	Total	**14**	**3**	**17**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-3101	Differential Equations	3	0	3
TE-3115	Color Science	2	0	2
FM-2021	Weaving Preparatory Process	3	1	4
FM-3023	Weaving Calculations	3	0	3
ENG-3091	Technical Writing	1	2	3
TE-3113	Mechanics of Fibrous Structures	2	1	3
	Total	**14**	**4**	**18**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
STAT-4001	Statistical Methods in Engineering	3	0	3
MGT-3201	Entrepreneurship	2	0	2
FM-3021	Weaving Mechanism-I	3	1	4
MGT-3211	Project Management	3	0	3
FM-3022	Woven Fabric Structure & Design	3	1	4
TE-3201	Technical Textiles Fundamentals	2	0	2
	Total	**16**	**2**	**18**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
TE-4111	Environmental & Social Compliances in Textiles	3	0	3
TE-4121	Recent Trends in Textiles	2	0	2
TE-4131	Textile Testing & Quality Control	2	1	3
SS-4095	Personality Development & Character Building	3	0	3
FM-3024	Spinning Calculation	3	1	4
YM-4012	FYDP-I	0	3	3
	Total	**13**	**5**	**18**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
MGT-4089	Instrumentation & Control	2	1	3
YM-4013	Textile Industry Utilities & Services	2	1	3
YM-4019	FYDP-II	0	3	3
FM-4021	Specialty Weaving	2	1	3
TE-4111	Denim Manufacturing & Process	3	0	3
	Total	**9**	**6**	**15**

Industrial Internship (4 weeks, 6 days/week, 8 hours/day during summer holidays) (TE-4151)	0	1	1
Total Credits for BS Textile Engineering (Yarn Manufacturing)	103	33	136

BS Textile Engineering (Knitting)

KNITTING

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-1101	Calculus & Analytical Geometry	3	0	3
PH-1101	Applied Physics	3	1	4
CH-1101	Applied Chemistry	3	1	4
HU-11011	Islamic Studies	2	0	2
TE-1111	Introduction to Textile Engineering	2	0	2
HS-1101	Occupation Health & Safety	1	0	1
	Total	**14**	**2**	**16**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
HU-1201	Pakistan Studies & Global Perspective	2	0	2
MA-1201	Linear Algebra	3	0	3
ENG-1092	Communication & Presentation Skills	0	2	2
CS-1201	Information & Communication Technologies	2	1	3
TE-1112	Textile Raw Materials	3	0	3
ME-1121	Engineering Drawing	0	1	1
PE-2102	Polymer Engineering Fundamentals	2	0	2
	Total	**12**	**4**	**16**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
TE-2111	Introduction to Yarn Manufacturing	3	1	3
TE-2112	Introduction to Fabric Manufacturing	3	1	2
ME-2122	Mechanical Engineering Fundamentals	2	1	3
CS-3072	Computer Applications in Engineering Design	1	2	3
TE-3112	Fibre Science	2	1	3
	Total	**11**	**6**	**17**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
SS-1094	Social Intelligence & Soft Skills	3	0	3
TE-2113	Introduction to Textile Chemical Processing	3	1	4
TE-2114	Introduction to Garment Manufacturing	3	1	4
EE-2201	Electrical & Electronics Engg. Fundamentals	2	1	3
TE-3114	High-Performance Fibers	3	0	3
	Total	**14**	**3**	**17**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-3101	Differential Equations	3	0	3
TE-3115	Color Science	2	0	2
KN-3053	Knitting Mechanism-I	3	1	4
KN-3052	Knitting Preparatory Process	2	1	3
ENG-3091	Technical Writing	1	2	3
TE-3113	Mechanics of Fibrous Structures	2	1	3
	Total	**13**	**5**	**18**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
STAT-4001	Statistical Methods in Engineering	3	0	3
MGT-3201	Entrepreneurship	2	0	2
KN-3051	Knitted Fabrics Structure & Design	3	1	4
MGT-3211	Project Management	3	0	3
KN-4054	Knitting Mechanism-II	3	1	4
TE-3201	Technical Textiles Fundamentals	2	0	2
	Total	**16**	**2**	**18**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
TE-4111	Environmental & Social Compliances in Textiles	3	0	3
TE-4121	Recent Trends in Textiles	2	0	2
TE-4131	Textile Testing & Quality Control	2	1	3
SS-4095	Personality Development & Character Building	3	0	3
KN-4052	Specialty Knitting	3	1	4
YM-4012	FYDP-I	0	3	3
	Total	**13**	**5**	**18**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
MGT-4089	Instrumentation & Control	2	1	3
YM-4013	Textile Industry Utilities & Services	2	1	3
YM-4019	FYDP-II	0	3	3
YM-4014	Knitting Calculations	3	0	3
TE-4111	Denim Manufacturing & Process	3	0	3
	Total	**10**	**5**	**15**

Industrial Internship (4 weeks, 6 days/week, 8 hours/day during summer holidays) (TE-4151)	0	1	1
Total Credits for BS Textile Engineering (Yarn Manufacturing)	103	33	136

BS Textile Engineering (Textile Processing)

TEXTILE PROCESSING

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-1101	Calculus & Analytical Geometry	3	0	3
PH-1101	Applied Physics	3	1	4
CH-1101	Applied Chemistry	3	1	4
HU-11011	Islamic Studies	2	0	2
TE-1111	Introduction to Textile Engineering	2	0	2
HS-1101	Occupation Health & Safety	1	0	1
	Total	**14**	**2**	**16**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
HU-1201	Pakistan Studies & Global Perspective	2	0	2
MA-1201	Linear Algebra	3	0	3
ENG-1092	Communication & Presentation Skills	0	2	2
CS-1201	Information & Communication Technologies	2	1	3
TE-1112	Textile Raw Materials	3	0	3
ME-1121	Engineering Drawing	0	1	1
PE-2102	Polymer Engineering Fundamentals	2	0	2
	Total	**12**	**4**	**16**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
TE-2111	Introduction to Yarn Manufacturing	3	1	3
TE-2112	Introduction to Fabric Manufacturing	3	1	2
ME-2122	Mechanical Engineering Fundamentals	2	1	3
CS-3072	Computer Applications in Engineering Design	1	2	3
TE-3112	Fibre Science	2	1	3
	Total	**11**	**6**	**17**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
SS-1094	Social Intelligence & Soft Skills	3	0	3
TE-2113	Introduction to Textile Chemical Processing	3	1	4
TE-2114	Introduction to Garment Manufacturing	3	1	4
EE-2201	Electrical & Electronics Engg. Fundamentals	2	1	3
TE-3114	High-Performance Fibers	3	0	3
	Total	**14**	**3**	**17**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-3101	Differential Equations	3	0	3
TE-3115	Color Science	2	0	2
TP-2031	Textile Colorants & Auxiliaries	3	1	4
TP-3031	Pre-Treatment of Textiles	2	1	3
ENG-3091	Technical Writing	1	2	3
TE-3113	Mechanics of Fibrous Structures	2	1	3
	Total	**13**	**5**	**18**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
STAT-4001	Statistical Methods in Engineering	3	0	3
MGT-3201	Entrepreneurship	2	0	2
TP-3032	Dyeing Theory & Practice	3	1	4
MGT-3211	Project Management	3	0	3
TP-3033	Textile Printing	3	1	4
TE-3201	Technical Textiles Fundamentals	2	0	2
	Total	**16**	**2**	**18**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
TE-4111	Environmental & Social Compliances in Textiles	3	0	3
TE-4121	Recent Trends in Textiles	2	0	2
TE-4131	Textile Testing & Quality Control	2	1	3
SS-4095	Personality Development & Character Building	3	0	3
TP-4031	Textile Finishing	3	1	4
YM-4012	FYDP-I	0	3	3
	Total	**13**	**5**	**18**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
MGT-4089	Instrumentation & Control	2	1	3
YM-4013	Textile Industry Utilities & Services	2	1	3
YM-4019	FYDP-II	0	3	3
TP-4032	Textile Coatings	2	1	3
TE-4111	Denim Manufacturing & Process	3	0	3
	Total	**9**	**6**	**15**

Industrial Internship (4 weeks, 6 days/week, 8 hours/day during summer holidays) (TE-4151)	0	1	1
Total Credits for BS Textile Engineering (Yarn Manufacturing)	102	34	136

BS Textile Engineering (Garment Manufacturing)

GARMENT MANUFACTURING

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-1101	Calculus & Analytical Geometry	3	0	3
PH-1101	Applied Physics	3	1	4
CH-1101	Applied Chemistry	3	1	4
HU-11011	Islamic Studies	2	0	2
TE-1111	Introduction to Textile Engineering	2	0	2
HS-1101	Occupation Health & Safety	1	0	1
	Total	**14**	**2**	**16**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
HU-1201	Pakistan Studies & Global Perspective	2	0	2
MA-1201	Linear Algebra	3	0	3
ENG-1092	Communication & Presentation Skills	0	2	2
CS-1201	Information & Communication Technologies	2	1	3
TE-1112	Textile Raw Materials	3	0	3
ME-1121	Engineering Drawing	0	1	1
PE-2102	Polymer Engineering Fundamentals	2	0	2
	Total	**12**	**4**	**16**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
TE-2111	Introduction to Yarn Manufacturing	3	1	3
TE-2112	Introduction to Fabric Manufacturing	3	1	2
ME-2122	Mechanical Engineering Fundamentals	2	1	3
CS-3072	Computer Applications in Engineering Design	1	2	3
TE-3112	Fibre Science	2	1	3
	Total	**11**	**6**	**17**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
SS-1094	Social Intelligence & Soft Skills	3	0	3
TE-2113	Introduction to Textile Chemical Processing	3	1	4
TE-2114	Introduction to Garment Manufacturing	3	1	4
EE-2201	Electrical & Electronics Engg. Fundamentals	2	1	3
TE-3114	High-Performance Fibers	3	0	3
	Total	**14**	**3**	**17**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-3101	Differential Equations	3	0	3
TE-3115	Color Science	2	0	2
GM-3041	Garment Sizing & Pattern Making	3	1	4
GM-4044	Apparel Merchendising & Sourcing	3	0	3
ENG-3091	Technical Writing	1	2	3
TE-3113	Mechanics of Fibrous Structures	2	1	3
	Total	**13**	**5**	**18**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
STAT-4001	Statistical Methods in Engineering	3	0	3
MGT-3201	Entrepreneurship	2	0	2
GM-3044	Industrial Cutting & Sewing	3	1	4
MGT-3211	Project Management	3	0	3
GM-4041	Garment Production Machinery	3	1	4
TE-3201	Technical Textiles Fundamentals	2	0	2
	Total	**16**	**2**	**18**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
TE-4111	Environmental & Social Compliances in Textiles	3	0	3
TE-4121	Recent Trends in Textiles	2	0	2
TE-4131	Textile Testing & Quality Control	2	1	3
SS-4095	Personality Development & Character Building	3	0	3
TP-4031	Advances in Apparel Production	3	1	4
YM-4012	FYDP-I	0	3	3
	Total	**13**	**5**	**18**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
MGT-4089	Instrumentation & Control	2	1	3
YM-4013	Textile Industry Utilities & Services	2	1	3
YM-4019	FYDP-II	0	3	3
GM-3043	Industrial Engineering in Garment Manufacturing	2	1	3
TE-4111	Denim Manufacturing & Process	3	0	3
	Total	**9**	**6**	**15**

Industrial Internship (4 weeks, 6 days/week, 8 hours/day during summer holidays) (TE-4151)	0	1	1
Total Credits for BS Textile Engineering (Yarn Manufacturing)	103	33	136

DEPARTMENT OF MATERIALS

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 Polymer Engineering.

Brief Introduction

The Department of Materials was initially established as Department of Polymer Engineering at National Textile University in 2007. It was later renamed to Department of Materials in 2021 with enhanced scope and more programs offered. The foremost purpose of establishing this department is to provide trained workforce to polymers, composites and other materials related sectors in the country.

At the undergraduate level, the Department offers a 4-year degree program in Polymer Engineering, through a range of courses covering all areas of polymeric materials. The curriculum is designed vigilantly keeping in view the current and future needs of the industry and is fully flexible to be modified to keep pace with the rapidly changing technologies. The major focus is on developing concepts and skills of students through classroom learning, laboratory work, internship and industrial tours.

Department of Materials has strong industrial linkages which enable the students to grab latest trends in the industry. Moreover, Department is also involved in graduate programs at the university and actively participate in Research & Development.

Facilities

The Department of Materials offers excellent Laboratory facilities to its students that are segregated under different labs. Polymer Synthesis Laboratory contains Batch Polymerization Reactor, Membran, casting, Heating Mantels, Furnace, Overhead Stirrers, Fune hoods and Oven, etc.

Instrumentation & Process Control Laboratory comprises of Temperature Process Station, Level Process Station, Pressure Process Station, Flow Process Station and Thermocouple Calibration Bench, etc. Polymer Processing Laboratory is equipped with extruder, injection molding, Melt Spinning Machine, Bra-bender and Blow Molding Machine. The "Unit Operations Lab" is equipped with Air Dryer Unit, Shell & Tube Heat Exchanger, Plate and Frame Heat Exchanger, Gas Diffusion apparatus, Flow Demonstration Apparatus & Distillation Column.

Polymer Characterization Laboratory consists of FTIR (Fourier Transform Infrared Spectrometer), GPC (Gel Permeation Chromatography), TGA (Thermogravimetric Analyzer), DMA (Dynamic Mechanical Analyzer), TMA (Thermo Mechanical Analyzer), DSC (Differential Scanning Calorimeter), UTM (Universal Testing Machine), Rheometer and Melt Flow Indexer (MFI). Polymer Composite Lab comprises of Vacuum Infusion, Prepreg, Compression Molding, Resin Transfer Molding, Curing Oven, Sample Profile Cutter (CNC), Water Jet Cutter, Temperature & Humidity chamber, Ultrasonic Tester (C-Scan), Optical Microscope, Guarded Hot Plate, etc.

Career Prospects

Polymer Engineering has bright prospects in synthetic fibers, rubbers, composites, packaging materials, coatings, paints, adhesives and sealants. In addition to that the R&D of synthetic fibers, paints, auxiliaries, adhesives, pharmaceuticals, technical textiles, etc. are also the potential career perspectives for polymer Engineers. Students are trained in such a way that they can adopt any field of polymers and related areas.

Faculty Profile Department of Materials

Dr. Khubab Shaker

Assistant Professor / Chairman
PhD Textile Engineering (Composite Materials) (NTU, Faisalabad)
M.Sc. Textile Engineering (NTU, Faisalabad)
B.Sc. Textile Engineering (NTU, Faisalabad)

Dr. Zulfiqar Ahmed Rehan

Assistant Professor
PhD Chemistry (Polymer Membranes)
King Abdul-Aziz University Saudi Arabia
M.Sc. Chemistry (UET, Lahore)

Dr. Zakariya Zubair

Assistant Professor
PhD Mechanical Engineering (France)
MS Advanced Materials Engineering (NTU)
B.Sc. Polymer Engineering (NTU, Faisalabad)

Dr. Zubair Khaliq

Assistant Professor
PhD Organic and Nano Engineering (Korea)
MS Organic and Nano Engineering (Korea)
B.Sc. in Textile Engineering (NTU, Faisalabad)

Dr. Asif Hafeez

Lecturer
PhD Polymer Engineering (Malaysia)
MS Chemical Science and Engineering (Sweden)
B.Sc. Chemical Engineering (Polymer) (UET)

Dr. Faiza Anjum

Assistant Professor
PhD Sociology (GCU, Faisalabad)
MPhil Sociology (GCU, Faisalabad)
M.Sc. Sociology (GCU, Faisalabad)

Dr. Kashif Bangash

Assistant Professor
PhD Material Science and Technology (Italy)
MS Textile Engineering (Composites) (Italy)
B.Sc. Textile Engineering (NTU, Faisalabad)

Faculty Profile Department of Materials

Dr. Wasif Razzaq
Lecturer
Phd. Polymer Science & Engineering,
(University of Strasbourg, France)
Msc Polymer Engineering
(UET, Lahore, Pakistanv)

Lecturer
M.Sc. (Chemical Engineering)
UET/ NFC IEFR Lahore
B.Sc. Chemical Engineering (BZU, Multan)

Ayesha Afzal
Lecturer
M.Sc. Polymer & Process Engineering
(UET, Lahore)
B.Sc. Polymer Engineering (NTU, Faisalabad)

Iqra Abdul Rashid
Lecturer
M.Sc. Polymer & Process Engineering
(UET, Lahore)
B.Sc. Polymer Engineering (NTU, Faisalabad)

BS Polymer Engineering Program Educational Objectives (PEOs)

Demonstrate engineering knowledge and skills to design solutions for relevant engineering problems in the domain of Polymers.

Achieve professional success by practicing ethical behavior, sustainability and diversity with effective communication in individual and team.

Adopt innovative approaches and pursue career growth undertaking professional trainings 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)
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
PH-1101	Applied Physics	3	1	4
MA-1101	Calculus & Analytical Geometry	3	0	3
CH-1101	Polymer Chemistry	3	1	4
CS-1071	Introduction to Computing	1	1	2
PE-1101	Industrial Stoichiometry	2	0	2
ENG-1091	Functional English	3	0	3
	Total	**15**	**3**	**18**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
PE-1202	Fundamental of Polymer Engineering	3	0	3
MA-1202	Linear Algebra	3	0	3
PE-1203	Chemical & Petrochemical Industries	2	0	2
ME-2122	Mechanical Engineering Fundamentals	2	1	3
HU-1091	Ismaic Studies/ Ethics	2	0	2
ME-1121	Engineering Drawing	0	1	1
ENG-1092	Communication & Presentation Skills	1	1	2
	Total	**13**	**3**	**16**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
PE-1102	Structure & Properties of Polymers	3	0	3
HU-2102	Creative/ Technical Writing	2	1	3
HU-2103	Pakistan Studies	2	0	2
PE-2105	Fluid Flow	2	0	2
PE-2102	Thermodynamics	2	0	2
PE-2107	Instrumentation & Control	2	1	3
PE-2106	Polymer Synthesis	2	1	3
	Total	**15**	**3**	**18**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
MGT-2201	Operation Management Principles	3	0	3
PE-2209	Mold design & Fabrication	2	1	3
STAT-4001	Statistical Methods in Engineering	3	0	3
PE-2104	Unit Operations	2	1	3
SS-1094	Social Intelligence & Soft Skills	2	0	2
PE-3104	Polymer Rheology	3	0	3
	Total	**15**	**2**	**17**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
PE-3108	Polymer Composites	3	0	3
PE-3102	Polymer Reaction Engineering	3	0	3
PE-3102	Heat & Mass Transfer	3	0	3
PE-410220	Mechanical Properties of Polymers	3	0	3
EE-3001	Electrical & Electronic Systems	2	1	3
PE-2107	Painting & Coatings	2	0	2
	Total	**16**	**1**	**17**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
PE-3217	Elastomeric Materials	3	0	3
PE-3218 / PE-3219	Energy Engineering / Composite Design and Manufacturing	3	0	2
PE-3220	Polymer compounding & Blending	2	1	3
PE-3221	Polymer Analysis & Characterization	2	0	3
PE-3222	Bio Polymers	2	0	3
PE-3223	Polymer Processing Operations	2	1	3
	Total	**14**	**2**	**16**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
PE-4125	Final Year Design Project-I	0	3	3
PE-4126	Smart Polymers	3	0	3
MGT-4084 /MGT-4103	Quality Managemnet Systems / Entreprenuership	3	0	3
PE-3105/ PE-3101	Energy Engg./ Composite Design Manufacturing	2	0	2
PE-4107	Environmental Health & Safety Engineering	2	0	2
SS-4095	Personality Development & Character Building	3	0	3
	Total	**13**	**3**	**16**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
PE-4110	Final Year Design Project-II	0	3	3
PE-4105	Polymer Processing Design & Simulation	2	1	3
PE-4106	Organizational Behaviour	3	0	3
MGT-4089	Process Plant Design	2	0	2
PE-4233/ PE-4234	Fiber Tech. / Mechanics of Composite Materials	2	0	2
PE-4235	Recycle & Waste Mangement	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	112	22	134

BS Materials Engineering Technology
Program Educational Objectives (PEOs)

Graduates of Materials Engineering Technology will be able to

- Pursue a successful career in industry, academia, and allied professions by applying knowledge of science and materials engineering technology in providing solutions to technological problems
- Achieve professional success by practicing ethical behavior, sustainability, and diversity with effective communication in individual and team.
- Enhance their professional skills by involving in continuous learning

Program Learning Outcomes (PLOs)

BS Materials Engineering Technology Program aims at achieving the following learning outcomes in the students by the time of graduatiotn:

Attributes	Program Learning Outcomes (PLOs)
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.
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.
Design/Development of Solutions	An ability to design solutions for broadly-defined Engineering Technology problems and contribute to the design of system, components or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environment considerations.
Investigation	An ability to conduct investigate broadly-defined problems; locate search and select relevant data from codes, data bases and literature, design and conduct experiments to provide valid conclusions.
Modern Tool Usage	An ability to Select and apply appropriate techniques, resources, and modern technology and IT tools, including prediction and modeling, to broadly-defined Engineering Technology problems, with an understanding of the limitations.
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.
Environment and Sustainability	An ability to understand and evaluate the sustainability and impact of Engineering Technology work in the solution of broadly defined Engineer Technology problems in societal and environmental contexts.
Ethics	Understand and commit to professional ethics and responsibilities and norms of Engineering Technology practice.
Individual and Team Work	An ability to function effectively as an individual, and as member or leader in diverse teams.
Communication	An ability to communicate effectively, on broadly defined Engineer Technology activities with Engineering Technologist community and with society at large, by being able to comprehend and write effective reports and design documentation, make effective presentations, give and receive clear instruction.
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.
Lifelong Learning	An ability to recognize the need for and have the ability to engage in independent and life-long learning in specialist Engineer Technologies.

BS MATERIALS ENGINEERING TECHNOLOGY

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
MEH-1101	Ismaic Studies/ Ethics	3	0	3
MEE-1101	Functional English	3	0	3
MEQ-1101	Applied Mathematics	3	0	3
MEN-1101	Applied Physics	2	1	3
MEC-1101	Introduction to Computing	1	1	2
MET-1101	Fundamentals of Materials Technology	2	0	2
MET-1102	Technical drawing and CADs	0	1	1
	Total	**14**	**3**	**17**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
MEH-1201	Pakistan Studies	3	0	3
MEI-1201	Workshop Practices	0	2	2
MEE-1201	Communication & Presentation Skills	3	0	3
MEQ-1201	Applied Statistics	3	0	3
MET-1201	Materials Thermodynamics & Kinetics	3	0	3
MEN-1201	Apllied Chemistry	2	1	3
	Total	**14**	**3**	**17**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
MEI-2301	Electrical & Electronic Technology	2	1	3
MET-2301	Polymer Science & Technology	2	0	2
MET-2302	Measurement & Intrumentation	2	1	3
MET-2303	Heat, Mass & Fluid Flow	2	1	3
MET-2304	Material Process Industries	3	0	3
MET-2305	Ceramics & Glasses	3	0	3
	Total	**14**	**3**	**17**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
MEC-2401	Computer Programming	1	1	2
MEM-2401	Organizational Behavior	2	0	2
MET-2401	Metal & Alloys	3	0	3
MET-2402	Surface Engineering of Materials	2	1	3
MET-2403	Heat Treatment of Materials	3	0	3
MET-2404	Composite Materials	2	1	3
	Total	**13**	**3**	**16**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
MET-3501	Biomaterials & Applications	3	0	3
MET-3502	Smart/ Functional Materials	2	0	2
MES-3501	Professional Ethics	3	0	3
MET-3503	Textile Materials	3	0	3
MET-3504	Mechanical Testing	2	1	3
MET-3505	Project	0	3	3
	Total	**13**	**4**	**17**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
TEM-3601	Operations Management	3	0	3
TET-3601	Environmental & Haelth Safety	2	1	3
TET-3602	Corrosion & Protection of Materials	3	0	3
TET-3603	Mecchanics of Materials	2	0	2
TET-3604	Microstructure Analysis	2	1	3
TET-3605	Project-II	0	3	3
	Total	**12**	**5**	**17**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
MET-4701	Supervised Industrial Training/ Electives	0	16	16

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
MET-4801	Supervised Industrial Training	0	16	16

Total Credits for BS Materials Engineering Technology	80	53	133

DEPARTMENT OF TEXTILE TECHNOLOGY

Mission Statement

To equip students with the global knowledge of textile technology by adapting the best practices for socio-economic growth of the society.

Brief Introduction

Textile Technology department aims to provide quality education about textile fibers, yarn manufacturing, fabric manufacturing, textile processing and garment manufacturing. The department is offering BS textile engineering technology and MS textile technology programs.

These two programs focus to apply the scientific principles with specific knowledge of textiles to manufacture textile products by conventional and modern textile technologies. Moreover, the textile technology department emphasize to conduct the industrial research projects and trainings to bridge the academia with textile industry.

Faculty Profile Department of Textile Technology

Dr. Sheraz Ahmad

Associate Professor/Chairman
PhD Textiles (France)
Master Fibre Sciences & Mechanics
ENSISA, France
Master Fibre Technology (UAF)

Dr. Engr. Hafsa Jamshaid (CText FTI)

Associate Professor
PhD Textile Technics & Materials Engineering
(Czech Republic)
M.Sc Engineering Management (UET, Lahore)
B.Sc Textile Engineering (UET, Lahore)

Dr. Rashid Masood

Associate Professor
PhD (Biomedical Textiles)
University of Bolton, United Kingdom
Master of Science in Textile Studies
University of Bolton, United Kingdom

Dr. Zuhaib Ahmad

Assistant Professor
PhD Textile Technics & Materials Engineering
(Czech Republic)
M.Sc Textile Technology (Sweden)
B.Sc Textile Engineering (NTU, Faisalabad)

Muhammad Bilal

Assistant Professor
MS Textile Management (TUF)
B.Sc Textile Engg. (UET, Lahore)

Dr. Amna Siddique

Assistant Professor
PhD Textile Composite Materials (China)
M.Sc Textile Engineering (NTU, Faisalabad)
B.Sc Textile Engineering (NTU, Faisalabad)

Dr. Faheem Ahmad

Assistant Professor
PhD Materials Science & Engineering (Turkey)
M.Sc Textile Engineering (NTU, Faisalabad)
B.Sc Textile Engineering (NTU, Faisalabad)

Dr. Muhammad Imran Khan

Assistant Professor
Ph.D.
MS Textile Engineering
BS Textile Engineering

Dr. Jawad Naeem

Lecturer
PhD Textile Technics & Materials Engineering,
Czech Republic
Masters in Textile Technology
(University of Boras, Sweden)
B.Sc Textile Engineering (NTU, Faisalabad)

BS Textile Engineering Technology
Program Educational Objectives (PEOs)

The program aims at imparting quality education to engineering technology graduates for contributing to the society through modern technologies and practices in line with SDGs

After 3-5 years of graduation, the Textile Engineering Technology Graduates will be able to:

- Implement the knowledge of applied sciences and textile engineering technology in real world textile challenges.
- Lead as an expert with effective communication in optimizing textiles processes with due considerations of ethics and sustainability.
- Have a positive attitude towards continual learning and fully adaptive to constantly changing technologies.

Program Learning Outcomes (PLOs)

BS Textile Engineering Technology Program aims at achieving the following learning outcomes in the students by the time of graduatiotn:

Attributes	Program Learning Outcomes (PLOs)
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.
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.
Design/Development of Solutions	An ability to design solutions for broadly-defined Engineering Technology problems and contribute to the design of system, components or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environment considerations.
Investigation	An ability to conduct investigate broadly-defined problems; locate search and select relevant data from codes, data bases and literature, design and conduct experiments to provide valid conclusions.
Modern Tool Usage	An ability to Select and apply appropriate techniques, resources, and modern technology and IT tools, including prediction and modeling, to broadly-defined Engineering Technology problems, with an understanding of the limitations.
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.
Environment and Sustainability	An ability to understand and evaluate the sustainability and impact of Engineering Technology work in the solution of broadly defined Engineer Technology problems in societal and environmental contexts.
Ethics	Understand and commit to professional ethics and responsibilities and norms of Engineering Technology practice.
Individual and Team Work	An ability to function effectively as an individual, and as member or leader in diverse teams.
Communication	An ability to communicate effectively, on broadly defined Engineer Technology activities with Engineering Technologist community and with society at large, by being able to comprehend and write effective reports and design documentation, make effective presentations, give and receive clear instruction.
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.
Lifelong Learning	An ability to recognize the need for and have the ability to engage in independent and life-long learning in specialist Engineer Technologies.

BS Textile Engineering Technology

A full time four years program in textile technology is being offered. The program is based on courses which has been designed considering the overall requirements of textile industry of Pakistan. This Program provides a comprehensive knowledge about all fields of textiles like spinning, weaving, knitting, processing and garments. This program also provides the knowledge about future trends in textiles.

BS TEXTILE ENGINEERING TECHNOLOGY

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
TEN-1101	Applied Physics	2	1	3
TEC-1101	Introduction to Computing	1	1	2
TEH-1101	Islamic Studies/Ethics	3	0	3
TEQ-1101	Applied Mathematics	3	0	3
TET-1101	Introduction to Textile Technology	2	0	2
TEE-1101	Functional English	3	0	3
TET-1102	Technical drawing and CADs	0	1	1
	Total	**14**	**3**	**17**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
TEI-1201	Workshop Practices	0	2	2
TEE-1201	Communication & Presentation Skills	3	0	3
TEQ-1201	Applied Statistics	3	0	3
TEH-1201	Pakistan Studies	3	0	3
TET-1201	Textile Raw Materials	3	0	2
TEN-1201	Applied Chemistry	2	1	3
	Total	**14**	**3**	**17**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
TEI-2301	Electrical & Electronic Technology	2	1	3
TET-2301	Fiber Science & Technology	2	1	3
TET-2302	Yarn Preparatory Process	2	1	3
TET-2303	Fabric manufacturing Preparatory Process	2	1	3
TET-2304	Pretreatment of Textiles	2	1	3
TET-2305	Anthropometry and Garment Construction	1	1	2
	Total	**11**	**6**	**17**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
TEC-2401	Computer Programming	1	1	3
TEM-2401	Social Sciences/ Management Sciences Elective	2	0	3
TET-2401	Mechanics of Fibrous Structures	1	1	3
TET-2402	Textile Dyeing	2	1	3
TET-2403	Industrial Cutting & Sewing	2	1	3
TET-2404	Yarn Manufacturing Technology	2	1	3
TET-2405	Fabric Manufacturing Technology	2	1	3
	Total	**12**	**6**	**18**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
TET-3501	Spinning Calculations	2	0	2
TET-3502	Fabric Manufacturing Calculations	2	0	2
TES-3501	Professional Ethics	3	0	3
TET-3503	Textile Testing	1	1	2
TET-3504	Textile Printing	2	1	3
TET-3505	Apparel Merchandizing and Sourcing	2	0	2
TET-3506	Project	0	3	3
	Total	**12**	**5**	**17**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
TEM-3601	Total Quality Managemnet (Elective Mgt Course)	3	0	3
TET-3601	Sewn Product Technology	2	1	3
TET-3602	Specialty engineered yarns	2	1	3
TET-3603	Specialty fabric manufacturing and design	2	1	3
TET-3604	Finishing & Coating	2	1	3
TET-3605	Project	0	3	3
	Total	**11**	**7**	**18**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
TET-4701	Supervised Industrial Training/ Electives	0	16	16

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
TET-4801	Supervised Industrial Training	0	16	16

Total Credits for BS Textile Engineering Technology	74	62	136

DEPARTMENT OF CLOTHING

Mission

The mission of the Department of Clothing is to provide students with a broad background in the textiles and clothing allowing for flexibility in making career choices. The department is committed to equip the students with knowledge of Apparel (global) business, design, raw materials, manufacturing, quality and related subjects of sciences and textiles as well as enable the students to propose solutions of Apparel related issues with the help of different types of tools and techniques i.e., communication, ICT and quality etc. The overall goal of our department is to expose students to the scientific processes involved in Apparel industry and to promote a student's ability to think critically. Ultimately, the aim is to transform the student into a more analytical thinker and to improve his/her confidence, both academically and professionally.

Brief Introduction

Last year has been a difficult time for all the world due to the most dangerous pandemic in the history of Mankind. Covid19 has significantly impacted the human life around the globe. Due to the lock down in almost all the world, the businesses have been badly affected throughout the world. In this hard time, Pakistan's Apparel industry has performed exceptionally very well. Most of the industries immediately shifted their production facilities to make safety related products such as face masks and protective suits etc. The Apparel industry which already has a lion's share in the total exports has shown further increase in export from last many months. Further, the steps taken by the Govt. has also helped this industry to take up this pace. It is expected that the increase in exports will continue further in future. The growth has already given the Apparel industry some space for new investments in capacity enhancement or developing new units. To keep up the current pace, it is necessary to have the human resource with right skill set for this industry. Department of Clothing is committed to take up the challenge to fulfill the needs of the industry.

Facilities

Department of Clothing provides outstanding laboratory facilities that can be compared with any renowned national or international university. Sewing labs are equipped with almost all different types of industrial sewing and pressing machines used in apparel production and research. Computer Aided Designing (CAD) lab is the state of the art. It contains 3D Body Scanner, 2D CAD (Tuka & Gerber), 3D CAD (Gerber), Digitizer & Plotter. Our lab is the only lab in Pakistan which has a 3D Body Scanner for taking body measurements. In addition to that Computer Aided Manufacturing (CAM) has recently been established and a unit production system (UPS) has been added. Further, the department has Smart Clothing lab to carry out research in field of smart and intelligent textiles.

Career Prospectus

The graduates of BS Apparel Manufacturing would be able to create their own businesses or find opportunities in diverse areas such as clothing design industry, clothing manufacturing industry, clothing traders, research and development industry and product development etc.

Faculty Profile Department of Clothing

Dr. Abher Rasheed

Associate Professor / Chairman
PhD Textiles LPMT-ENSISA Universit, France
Masters Textile Materials and Processes
ENSAIT/ENSAM , France
Master Total Quality Management (PU, Lahore)
BS Textile Engineering (NTU, Faisalabad)

Dr. Muhammad Babar Ramzan

Assistant Professor
PhD in Industrial and Management Eng.
Hanyang University, South Korea
MSc Textile Engineering (NTU, Faisalabad)
BSc Textile Engineering (NTU, Faisalabad)

Dr. Muhammad Anwaar Nazeer

Assistant Professor
Post-doctorate in Chemical & Biological Engineering (KU), Turkey
Ph.D. Biomedical Sciences & Engg. (KU), Turkey
B.Sc. in Textile Engineering (NTU, Faisalabad)

Dr. Muhammad Tauseef Khawar

Assistant Professor
Post-doctorate Sustainable Textile Manufacturing, University of Leeds, UK
Ph.D. Textile Science & Technology
University of Manchester, UK

Rabia Rani

Lecturer
MPhil English Linguistics (GCUF)
MA English (PU, Lahore)

Sadia Saleem

Lecturer
MPhil in Pakistan Studies
Pakistan
MSC in Pakistan Studies
Pakistan

Asma Iqbal

M.Phil in English Linguistics
Riphah International University Islamabad
Bs(h) Applied Linguistics
Government college University Faisalabad

Asifa Arif

Lecturer
MPhil in Applied Psychology
Riphah University, Islamabad

BS GARMENT ENGINEERING TECHNOLOGY

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
	Applied Physics	2	1	3
	Introduction to Computing	1	1	2
	Islamic Studies/Ethics	3	0	3
	Applied Mathematics	3	0	3
	Introduction to Textile Technology	2	0	2
	Functional English	3	0	3
	Technical drawing and CADs	0	1	1
	Total	**14**	**3**	**17**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
	Workshop Practices	0	2	2
	Communication & Presentation Skills	3	0	3
	Applied Statistics	3	0	3
	Pakistan Studies	3	0	3
	Textile Raw Materials	3	0	2
	Applied Chemistry	2	1	3
	Total	**14**	**3**	**17**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
	Electrical & Electronic Technology	2	1	3
	Fundamentals of Yarn Manufacturing	2	1	3
	Fundamentals of Fabric Manufacturing	2	1	3
	Raw Materials For Clothing	2	0	2
	Garment Design Fundamentals	1	1	2
	Creative/ Technical Writing	3	0	3
	Total	**12**	**4**	**16**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
	Computer Programming	1	1	3
	Social Sciences/ Management Sciences Elective	2	0	3
	Garment Technology-I	2	1	3
	Garment Production Machinery	2	1	3
	Anthropometry & Garment Construction	1	1	3
	Fundamentals in Textile Chemical Processing	2	1	3
	Total	**10**	**5**	**15**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
	Computer Aided Pattern Making	1	2	3
	Organizational Behaviour	2	0	2
	Operations Research	3	0	3
	Garment Technology 2	2	1	3
	Apparel Merchandizing and Sourcing	3	0	3
	Project	0	3	3
	Total	**11**	**6**	**17**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
TEM-3601	Garment Dry & Wet Process	2	1	3
TET-3601	Process Improvement	3	0	3
TET-3602	Sewn Product Technology	2	1	3
TET-3603	Compliances in Garment Industry	3	0	3
TET-3605	Project-II	0	3	3
	Total	**10**	**5**	**15**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
	Supervised Industrial Training	0	16	16

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
	Supervised Industrial Training	0	16	16

Total Credits for BS Garment Engineering Technology	70	59	129

SCHOOL OF SCIENCE

- **Department of Applied Science**
- **Department of Computer Science**

DEPARTMENT OF APPLIED SCIENCES

Vision

The vision of the Department of Applied Sciences is to provide student-centered educational environment to simulate the intellectual growth of students. We seek to facilitate the inter-connections between academia and industry. Our goals include to aspire innovative ideas in the field of applied sciences and related fields to attain academic excellence in teaching, research as well as to contribute towards the socio-economic status of the country.

Mission Statement

Our mission is to produce leaders in the field of sciences, matched with the needs of 21st century. We achieve this through critical reflection, close supervision, practical learning and passionate commitment to train and educate creative and hands-on individuals.

Brief Introduction

Department of Applied Sciences at NTU is playing an important role in developing the future scientists, engineers and professionals for industry. The role of the department is evident from the fact that the foundation of all technical and major courses are established through the courses taught under this department.

The department is offering the degree programs: BS Applied mathematics, BS Applied Physics, BS Applied Chemistry, BS Applied Statistics, MS in Mathematics & MS Physics and PhD in Chemistry, moreover, the department is also offering a wide range of courses for other departments at NTU in the subject of Chemistry, Physics, Mathematics and Statistics.

Not only technical but also personal growth and development is one of the most important aspects of human life, especially when one has to maintain one's pace with the current and modern needs of the job. To deal with this aspect, the department aims to provide graduates with solid foundation that would prepare themselves to adjust successfully in their careers.

The department is continually striving to improve the quality of its functioning, with special emphasis on teaching techniques and materials through improving the academic standards and by regularly upgrading the courses contents. The teaching methodology comprises lectures, laboratory work, projects, case studies, group assignments, seminars, presentations, industrial tours and so on.

The department being a part of Faculty of Science determines, promotes and facilitates multidisciplinary research. We have state of the art research laboratories involved in the research in the areas of textiles, polymers, advanced materials and nanotechnology. Our faculty members are involved in research intra-departmental and inter-departmental. We have active research collaborations with other institutes of the region and local industries. The faculty members have completed several research projects founded by national agencies including Higher Education Commission and several research projects are in progress.

One of our main goals is to produce scientists and engineers with creative and innovative skills needed to rise to the top of their profession. We, at NTU, are fully cognizant of the fact that engineering is indeed a intellectually demanding profession, mainly because of the wide range of skills needed to deploy

Faculty Profile Department of Applied Sciences

Dr. Nadeem Nasir

Associate Professor, Physics / Chairman
Post-Doc. (UTP, Malaysia)
Ph.D. (UTP, Malaysia)

Prof. Dr. M. Tahir Hussain

Professor, Chemistry
Ph.D. (QAU, Islamabad Pakistan)

Prof. Dr. Zahid Rizwan

Professor, Physics / Dean School of Science
Post-Doc. (UPM, Malaysia)
Ph.D., (UPM, Malaysia)

Dr. Zulfiqar Ali Raza

Associate Professor, Chemistry
Ph.D., (UOP, Peshawar Pakistan)

Dr. Naseer Ahmed

Assistant Professor, Statistics
Ph.D., (PU, Lahore Pakistan)

Dr. Muhammad Arshad

Assistant Professor, Mathematics
Ph.D., (GCUL, Lahore Pakistan)

Dr. Muhammad Tahir Saddique

Assistant Professor, Chemistry
Ph.D., (UOP, Peshawar, Pakistan)

Faculty Profile Department of Applied Sciences

Dr. Muhammad Imran Yousaf

Assistant Professor, Physics
Ph.D., (Wuhan University-Wuhan, China)

Dr. Fayyaz Ahmed

Assistant Professor, Mathematics
Ph.D. (Universita dellsInsubria, Italy)

Dr. Muhammad Aslam

Assistant Professor, Physics
Ph.D., (UOS, Sargodha Pakistan)

Dr. Salman Arif Cheema

Assistant Professor, Statistics
Ph.D.
New Castle University, (Australia)

Dr. Humayoun Shahid

Assistant Professor, Mathematics
Ph.D. (Comsats, Islamabad)

Dr. Yasir Nadeem Anjam

Lecturer, Mathematics
Ph.D. Shanghai Jiao Tong University (China)

Dr. M. Asif Javaid

Assistant Professor, Chemistry
Phd. Chemistry, UAF, Faisalabad

Saeed Ahmad

Lecturer, Statistics
M.Phil, (UAF, Faisalabad Pakistan)

BS APPLIED MATHEMATICS

Introduction

BS Applied Mathematics, a four-year degree program, is designed as a flexible applied program that provides graduates with a solid educational foundation that combines mathematics, science, technical knowledge, communications, artificial intelligence, and liberal studies to prepare graduates for applied sciences and technical fields interdisciplinary-based career and graduate studies. The Department of Applied Sciences strives to produce BS-Applied mathematics graduates who:

- Excel in technical careers and thrive in graduate studies using scientific principles and application of physical sciences
- Work effectively in bringing multi-disciplinary ideas to diverse professional environments
- Familiar with modern challenges and their mathematical solutions in industries
- Improve their workplaces, communities, and society through professional and personal activities

Program Education Objectives (PEOs)

PEO No.	PEO Description
PEO-1	Apply mathematical and related knowledge to identify and address the technical and industrial problems.
PEO-2	Enhance intellectual and analytical abilities in taking initiatives and/or develop innovative ideas for professional growth in mathematics and allied disciplines.
PEO-3	Work effectively as a team member or lead multidisciplinary teams while demonstrating the interpersonal & management skills and ethical responsibilities.
PEO-4	Pursue professional career in education, business & finance, industry and research institutions or continue higher education to obtain advanced degrees in mathematics or allied Disciplines.

BS APPLIED MATHEMATICS

Program Learning Outcomes (PLOs)

PLO Title	PLO Description
Mathematical Knowledge	An ability to learn basics and apply basic knowledge of mathematics, science, and engineering fundamentals to the solution of multiplex scientific problems.
Problem Analysis	An ability to identify, formulate and investigate complex problems reaching substantiated conclusions using mathematics, natural sciences and engineering
Development of Solutions	An ability to design solutions for problems and design systems, components, or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
Modern Tool Usage	An ability to create, select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling with an understanding of the limitations.
Ethics	Apply ethical principles and commit to professional ethics, responsibilities, and norms of mathematical practices
Communication	An ability to demonstrate management skills and apply computing principles to one's work, as a member and leader in a team, to manage projects in a multidisciplinary environment.
Communication	An ability to communicate effectively, orally as well as in writing with the scientific community and with society at large, such as being able to comprehend and write effective reports and design documentations, make effective presentations, and give and receive clear instructions.
Project Management and Teamwork	An ability to demonstrate management skills and apply scientific principles to one's own work, as a member and/or leader in a team to manage projects in a multidisciplinary environment.
Life-long learning	Recognize the need, and have the ability, to engage in independent learning for continual development as a Mathematician

BS APPLIED MATHEMATICS

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
ENG-1091	Functional English	3	0	3
HU-1091	Islamic Studies	2	0	2
STAT-1001	Introductory Statistics	3	0	3
TE-1113	Introduction to Textiles	3	0	3
MA-1021	Calculus-I	3	0	3
CS-1075	Introduction to Computing	2	1	3
	Total	**16**	**1**	**17**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
HU-1092	Pakistan Study	2	0	2
CSC-1071	Introduction to Computer Programming	2	1	3
ENG-1092	Communication and Presentation Skills	3	0	3
SS-1093	Introduction to psychology	3	0	3
MA-1023	Calculus-II	3	0	3
PH-1001	Physics-I	3	0	3
	Total	**16**	**1**	**17**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
ENG-3091	Technical Writing	3	0	3
MA-1024	Elements of Set Theory and Mathematical Logic	3	0	3
MA-2022	Calculus-III	3	0	3
MA-1022	Software Packages	3	0	3
PH-1002	Physics-II	3	0	3
CSC-2071	Object Oriented Programming	2	1	3
	Total	**17**	**1**	**18**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-2023	Affine and Euclidean Geometry	3	0	3
MA-2021	Group Theory	3	0	3
MA-2024	Linear Algebra-I	3	0	3
MA-2025	Ordinary Differential Equation	3	0	3
HU-3096	Foreign Language	3	0	3
CSC-2077	Data Structures &Algorithm	3	0	3
	Total	**18**	**0**	**18**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-3021	Topology	3	0	3
MA-3022	Differential Geometry	3	0	3
MA-3023	Discrete Mathematics	3	0	3
MA-3024	Real Analysis-I	3	0	3
MA-3025	Numerical Analysis	3	0	3
	Total	**15**	**0**	**15**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-3026	Classical Mechanics	3	0	3
MA-3027	Partial Differential Equation	3	0	3
MA-3028	Complex Analysis	3	0	3
MA-3029	Function Analysis	3	0	3
MA-3030	Real Analysis-II	3	0	3
	Total	**15**	**0**	**15**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-4021	Rings and Fields	3	0	3
MA-4022	Number Theory	3	0	3
MA-4023	Mathematical Method	3	0	3
MA-XXXX	E-1	3	0	3
MA-XXXX	E-2	3	0	3
MA-XXXX	E-3	3	0	3
	Total	**18**	**0**	**18**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-4025	Probability Theory	3	0	3
MA-4026	Integral Equations	3	0	3
MA-XXXX	E-4	3	0	3
MA-XXXX	E-5	3	0	3
MA-4050	Final Year Project	0	2	2
	Total	**12**	**2**	**14**

Total Credits for BS Applied Mathematics	132

Note: Quran Translation courses will be offered in each semester as per University policy.

BS APPLIED PHYSICS

Introduction

BS Applied Physics, a four-year degree program, is designed as a flexible applied program that provides graduates with a solid educational foundation that combines mathematics, science, technical knowledge, communications, and liberal studies to prepare graduates for applied sciences and technical fields interdisciplinary-based career and graduate studies. The Department of Applied Sciences strives to produce BS- Applied Physics graduates who:

- Excel in technical careers and thrive in graduate studies using scientific principles and application of physical sciences.
- Work effectively in bringing multi-disciplinary ideas to diverse professional environments.
- Improve their workplaces, communities, and society through professional and personal activities.

Program Education Objectives (PEOs)

PEO No.	PEO Description
PEO-1	Apply Physical and related knowledge to identify and address the technical and industrial problems.
PEO-2	Enhance intellectual and analytical abilities in taking initiatives and/or develop innovative ideas for professional growth in Physics and allied disciplines.
PEO-3	Work effectively as a team member or lead multidisciplinary teams while demonstrating the interpersonal & management skills and ethical responsibilities.
PEO-4	Pursue professional career in education, business & finance, industry and research institutions or continue higher education to obtain advanced degrees in Physics or allied Disciplines.

BS APPLIED PHYSICS

Program Learning Outcomes (PLOs)

PLO Title	PLO Description
Basic Knowledge	An ability to learn basics and apply basic knowledge of Physical sciences and engineering fundamentals to the solution of multiplex scientific problems.
Problem Analysis	Ability to identify, formulate and investigate complex problems reaching substantiated conclusions using Physical sciences.
Development of Solutions	Ability to design solutions for problems and design systems, components, or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
Modern Tool Usage	Ability to create, select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling with an understanding of the limitations.
Ethics	Apply ethical principles and commit to professional ethics, responsibilities, and norms of natural sciences.
Communication	Ability to communicate effectively, orally as well as in writing with the scientific community and with society at large, such as being able to comprehend and write effective reports and design documentations, make effective presentations, and give and receive clear instructions.
Project Management and Teamwork	Ability to demonstrate management skills and apply scientific principles to one's own work, as a member and/or leader in a team to manage projects in a multidisciplinary environment.
Life-long learning	Recognize the need, and have the ability, to engage in independent learning for continual development as a Physicist.

BS APPLIED PHYSICS

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
ENG-1091	Functional English	3	0	3
HU-1091	Islamic Studies	2	0	2
STAT-1001	Introductory Statistics	3	0	3
TE-1113	Introduction to Textiles	3	0	3
CS-1075	Introduction to Computing	2	1	3
PH-1021	Mechanics	3	1	4
MA-1007	Pre-Calculus-I (Pre-Medical)	0	0	0
	Total	**16**	**2**	**18**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
HU-1092	Pakistan Studies	2	0	2
CSC-1071	Introduction to Computer Programing	2	1	3
ENG-1092	Communication and Presentation Skills	3	0	3
SS-2092	Introduction to Sociology	2	0	2
PH-1023	Optics	3	1	4
CH-1003	Applied Chemistry	2	1	3
MA-1008	Pre-Calculus-II (Pre-Medical)	0	0	0
	Total	**14**	**3**	**17**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
ENG-3091	Technical Writing	3	0	3
PH-2020	Electricity Magnetism-I	3	1	4
MA-1001	Calculus and Analytical Geometry	3	0	3
PH-2021	Newtonian Mechanics	3	0	3
PH-2022	Basic Electronics	3	1	4
PH-2023	Heat and Thermodynamics	3	0	3
	Total	**18**	**2**	**20**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-1002	Linear Algebra	3	0	3
PH-2024	Modern Physics	3	1	4
PH-2025	Electricity Magnetism-II	3	0	3
PH-2026	Digital Electronics	3	1	4
PH-2027	Waves and Oscillations	3	1	4
	Total	**15**	**3**	**18**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
PH-3020	Quantum Mechanics	3	0	3
MA-2002	Multi-Variable Calculus	3	0	3
PH-3021	Statistical Mechanics	3	0	3
PH-3022	Mathematical Methods of Physics-I	3	0	3
PH-3023	Nuclear Physics	3	0	3
	Total	**15**	**0**	**15**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
PH-3024	Solid State Physics	3	0	3
PH-3025	Plasma Physics	3	0	3
PH-3026	Mathematical Methods of Physics-II	3	0	3
PH-3027	Laser Physics	3	0	3
MA-2001	Differential Equation	3	0	3
	Total	**15**	**0**	**15**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
PH-4020	Atomic and Molecular physics	3	0	3
PH-4021	Experimental Physics	3	0	3
PH-4022	Health and Medical Physics	3	0	3
PH-XXXX	Elective-I	3	0	3
PH-XXXX	Elective-II	3	0	3
	Total	**15**	**0**	**15**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
PH-4023	Physics for Semiconductor Devices	3	0	3
PH-XXXX	Elective-III	3	0	3
PH-XXXX	Elective -IV	3	0	3
PH-4050	Final Year Project	0	2	2
	Total	**9**	**2**	**11**

Total Credits for BS Applied Physics	129

Note: Quran Translation courses will be offered in each semester as per University policy.

BS APPLIED STATISTICS

Introduction

B.S. Applied Statistics 4 years' degree program primarily focusing on development and application of methods to collect, analyze, interpret, and learn from data.

Since data are witnessed in almost every field, including the natural and social sciences, medicine, industry, finance, and engineering, statistics are crucial in understanding the world around us.

Good statistical practice relies on comprehensive critical thinking that merges quantitative, mathematical and computer science skills with qualitative forms of thought, such as communicating results, assimilating new information with old, and assessing implications of new manifestations. With this in mind, the proposed program will aim at coupling methodological tools with multi-disciplinary applications, technical writing, and communication skills.

Program Education Objectives (PEOs)

PEO No.	PEO Description
PEO-1	Apply Statistical and related knowledge to identify and address the social and industrial problems.
PEO-2	Enhance intellectual and analytical abilities in taking initiatives and/or develop innovative ideas for professional growth in statistics and allied disciplines.
PEO-3	Work effectively as a team member or lead multidisciplinary teams while demonstrating the interpersonal & management skills and ethical responsibilities.
PEO-4	Pursue professional career in education, business & finance, industry and research institutions or continue higher education to obtain advanced degrees in statistics or allied Disciplines.

BS APPLIED STATISTICS

Program Learning Outcomes (PLOs)

PLO Title	PLO Description
Basic Knowledge	An ability to learn basics and apply basic knowledge of statistics to the solution of multiplex scientific problems.
Problem Analysis	Ability to identify, formulate and investigate complex problems reaching substantiated conclusions using statistical tools.
Development of Solutions	Ability to design solutions for problems and design systems, components, or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
Modern Tool Usage	Ability to create, select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling with an understanding of the limitations.
Ethics	Apply ethical principles and commit to professional ethics, responsibilities, and norms of sciences.
Communication	Ability to communicate effectively, orally as well as in writing with the scientific community and with society at large, such as being able to comprehend and write effective reports and design documentations, make effective presentations, and give and receive clear instructions.
Project Management and Teamwork	Ability to demonstrate management skills and apply scientific principles to one's own work, as a member and/or leader in a team to manage projects in a multidisciplinary environment.
Life-long learning	Recognize the need, and have the ability, to engage in independent learning for continual development as a statistician.

BS APPLIED STATISTICS

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
ENG - 1091	Functional English	3	0	3
HU - 1091	Islamic Studies	2	0	2
STAT- 1001	Introductory Statistics	3	0	3
TE -1113	Introduction to Textiles	3	0	3
MKT- 1081	Principals of Marketing	3	0	3
MA -1001	Calculus - I	3	0	3
MA-1007	Pre-Calculus-I	0	0	0
	Total	**17**	**0**	**17**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
HU - 1092	Pakistan studies	2	0	2
CSC- 1071	Introduction to Computer Programming	2	1	3
ENG-1092	Communication and Presentation Skills	3	0	3
SS - 1093	Introduction to Psychology	3	0	3
SS - 2092	Introduction to Sociology	3	0	3
MA- 1002	Calculus – II	3	0	3
MA-1008	Pre-Calculus-II	0	0	0
	Total	**16**	**1**	**17**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
ENG- 3091	Technical writing	3	0	3
STAT- 1002	Elementary Probability	3	0	3
STAT- 2004	Probability & Probability Distributions - I	3	0	3
MGT- 2085	Business Administration (Entrepreneurship)	3	0	3
MGT- 1081	Principals of Management	3	0	3
STAT- 2002	Statistical Methods	3	0	3
	Total	**18**	**0**	**18**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
MA - 2002	Linear Algebra	3	0	3
STAT- 2006	Sampling Techniques - I	3	0	3
HRM- 2081	Human Resource Management	3	0	3
STAT- 2001	Exploratory Analysis & Data Visualization	3	0	3
STAT- 2005	Probability & Probability Distributions - II	3	0	3
CS - 3074	Integrated Management Systems & Standards	3	0	3
	Total	**18**	**0**	**18**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
STAT- 3008	Statistical Inference-I	3	0	3
STAT- 3009	Design and Analysis of Experiment – I	3	0	3
STAT- 3007	Sampling Technique – II	3	0	3
MGT- 3083	Total Quality Management	3	0	3
STAT- 3013	Applied Regression Analysis	3	0	3
	Total	**15**	**0**	**15**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
STAT- 3010	Design and Analysis of Experiment – II	3	0	3
STAT- 3009	Statistical Inference-II	3	0	3
STAT- 3011	Econometrics	3	0	3
STAT- 3012	Statistical Quality Control	3	0	3
STAT- 2003	Statistical Packages	3	0	3
	Total	**15**	**0**	**15**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
MGT-4086	Strategic Management	3	0	3
STAT- 4016	Applied Time Series Analysis	3	0	3
DSC- 2072	Data Mining	3	0	3
STAT- 4014	Applied Multivariate Analysis - I	3	0	3
STAT-xxxx	Elective-I	3	0	3
	Total	**15**	**0**	**15**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
STAT- 4015	Applied Multivariate Analysis – II	3	0	3
STAT- 4006	Operational Research	3	0	3
STAT- xxxx	Elective-II	3	0	3
STAT- xxxx	Elective-III	3	0	3
STAT-4050	Final Year Project	0	2	2
	Total	**12**	**2**	**14**

Total Credits for BS Applied Statistics	129

Note: Quran Translation courses will be offered in each semester as per University policy.

BS APPLIED CHEMISTRY

Introduction

Chemistry is an incredibly fascinating field of study. Because it is so fundamental to our world, chemistry plays a role in everyone's lives and touches almost every aspect of our existence in some way. Department of Applied Sciences aims to intake its first BS Applied Chemistry (4 years program) batch in Fall 2022. We are determined to produce future graduates with extensive knowledge and skill for industry, academia, and society. The curriculum had been designed vigilantly keeping in view the current and future needs of the stockholders. This theoretical background is augmented through carefully designed laboratory courses, in-house training, and internships. The department has state-of-the art laboratory and research facilities in the all concerned branches of chemistry. The students would be encouraged to participate in research projects under the supervision of Ph.D. qualified, competent and experienced faculty with the aim paly a significant role in the development of the national industry and economy.

Program Education Objectives (PEOs)

PEO No.	PEO Description
PEO-1	Ability to comprehend the theoretical basis of chemistry and applied sciences underlying various physicochemical phenomena.
PEO-2	Ability to apply the updated knowledge of chemistry in designing experimental procedures, operating analytical machines, data handling, and skills development towards chemical innovations.
PEO-3	Ability of the graduates to excel professionally in industry, academia, and entrepreneurship by being useful citizens.

Program Learning Outcomes (PLOs)

PLO Title	PLO Description
Chemistry Knowledge	An ability to apply knowledge of chemistry to address the chemical processes in industry and everyday life.
Problem Analysis and Design	An ability to literature survey, identify, design, and analyze chemistry problems reaching fruitful conclusions.
Investigation Tools	An ability to select and apply appropriate chemistry techniques, and resources to investigate the chemical substances and processes.
Chemistry and the Environment	An ability to understand the impact of chemical species on the environment and demonstrate knowledge of and need for sustainable processes.
Communication Skill	An ability to communicate effectively the outcomes of chemistry knowledge and outcomes in the scientific community and society.
Project Execution	An ability to design and execute a research project as research trainees in an effective way.

BS APPLIED CHEMISTRY

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
ACH-1001	Fundamentals of Physical Chemistry	3	1	4
PHY-1004	Applied Physics-I	2	1	3
TE-1113	Introduction to Textile Sciences	3	0	3
HU-1091	Functional English	3	0	3
CSF-1071	Introduction to Computers	2	1	3
HU-1093	Islamic Studies	2	0	2
MA-1000	Fundamentals of Mathematics	0	0	0
	Total	**15**	**3**	**18**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
ACH-1002	Fundamentals of Inorganic Chemistry	3	1	4
ACH-1003	Environmental Chemistry	2	0	2
MA-1006	Mathematics for Chemists-I	3	0	3
PHY-1005	Applied Physics-II	2	1	3
HU- 2091	Communication & Presentation Skills	3	0	3
HU-1092	Pakistan Studies	2	0	2
	Total	**15**	**2**	**17**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
ACH-2001	Fundamentals of Organic Chemistry	3	1	4
ACH-2002	Fundamentals of Analytical Chemistry	3	1	4
MA-2003	Mathematics for Chemists-II	3	0	3
SS-2092/ SS-1093	Introduction to Sociology / Introduction to Psychology	3	0	3
HU-3091	Technical Writing	3	0	3
	Total	**15**	**2**	**17**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
ACH-2003	Applied Physical Chemistry-I	3	1	4
ACH-2004	Industrial Chemistry	3	1	4
STAT-2003	Probability and Statistics	3	0	3
TE-1112	Textile Raw Materials	3	0	3
MGT-4089	Entrepreneurship	3	0	3
	Total	**15**	**2**	**17**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
ACH-2006	Applied Inorgaenic Chemistry-I	3	1	4
ACH-3001	Applied Organic Chemistry-I	3	1	4
ACH-3002	Applied Analytical Chemistry-I	3	1	4
ACH-3004	Fundamentals of Biochemistry	2	1	3
ACH-3005	In-house Training and Internship	0	3	3
	Total	**11**	**7**	**18**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
ACH-3005	Applied Physical Chemistry-II	3	1	4
ACH-3006	Applied Inorganic Chemistry-II	3	1	4
ACH-3007	Applied Organic Chemistry-II	3	1	4
ACH-3008	Applied Analytical Chemistry-II	3	1	4
	Total	**12**	**4**	**16**

7th Semester (Specialization Textile Chemistry)

Code	Course Title	Theory	Lab	Credit Hours
TCH-4001	Dyestuff Chemistry	3	1	4
TCH-4002	Chemistry of Textile Processing	3	1	4
TCH-4003	Colour Chemistry	3	0	3
TP-4033	Textile Chemicals Testing and Quality Control	3	1	4
TE-4111	Environmental and Social Compliances in Textiles	3	0	3
	Total	**15**	**3**	**18**

8th Semester (Specialization Textile Chemistry)

Code	Course Title	Theory	Lab	Credit Hours
TCH-4004	Textile Auxiliaries	3	0	3
ACH-4001	Green Chemistry	3	0	3
ACH-4002	Nanotechnology	3	0	3
ACH-4003	Seminar/Review Article	1	0	1
ACH-4004	Research Project	0	3	3
	Total	**10**	**3**	**13**

7th Semester (Specialization Polymer Chemistry)

Code	Course Title	Theory	Lab	Credit Hours
PCH-4001	Fundamentals of Polymer Chemistry	3	1	4
PCH-4002	Polymer Characterization	3	1	4
PCH-4003	Synthetic Polymers	3	1	4
PE-4108	Polymer Composites	3	0	3
PE-4104	Polymer Processing	3	0	3
	Total	**15**	**3**	**18**

8th Semester (Specialization Polymer Chemistry)

Code	Course Title	Theory	Lab	Credit Hours
PCH-4004	Polymer Reactions	3	0	3
ACH-4001	Green Chemistry	3	0	3
ACH-4002	Nanotechnology	3	0	3
ACH-4003	Seminar/Review Article	1	0	1
ACH-4004	Research Project	0	3	3
	Total	**10**	**3**	**13**

Total Credits for BS Applied Chemistry	134

Note: Quran Translation courses will be offered in each semester as per University policy.

DEPARTMENT OF COMPUTER SCIENCE

Vision

To build a congenial learning and teaching environment that responds effectively in this ever-changing technological age.

Mission Statement

The Department of Computer Science (DCS) is committed to impart quality and up-to-date education in accordance with the University mission, in order to train the students in both, theoretical and applied foundations of Computer Science through its comprehensive educational programs and innovative research.

Brief Introduction

National Textile University (NTU) is the pioneer textile institute in Pakistan. Keeping in view the growing demand for computer applications in textile, NTU decided to launch its Computer Science program under the School of Science to tailor the global needs of the industrial world. With this aim, the Department of Computer Science was established in 2009. Currently, Computer Science is offering three bachelor degrees programs, and all programs are accredited by National Computing Education Accreditation Council (NCEAC) Islamabad. NCEAC is a computer programs accreditation authority of Higher Education Commission (HEC) Pakistan.

At present, the Department of Computer Science (DCS) is offering six-degree programs, namely Bachelor of Science in Computer Science BS(CS), Bachelor of Science in Software Engineering BS(SE), Bachelor of Science in Artificial Intelligence BS(AI), Master of Science in Computer Science MS(CS), Master of Science in Software Engineering MS(SE) and PhD in Computer Science. These programs are designed to produce Information Technology (IT) professionals with the latest technical and professional skills to meet the industry's requirements. The Department of Computer Science is quite diversified with local and foreign Faculty members. The Department has(07) computer labs with state-of-the-art computing facilities. A State-of-the-art AI & Robotics lab is also developed recently.

It has been attracting bright students from across the globe for quality education at the undergraduate level. Currently, almost 30 international students are studying in bachelor degree programs in the Department.

Undergraduate Programs

Department is offering the following programs at the undergraduate level:

- BS Computer Science
- BS Software Engineering
- BS Artificial Intelligence

Career Prospects

According to the Bureau of Labor Statistics, future job prospects for computer science graduates are higher than for any other science or engineering field. This year, Pakistan has observed enormous growth in IT export, and to sustain this growth, almost 40,000 graduates are required every year.

The majority of the graduates of the Department of Computer Science are employed in national and multinational companies as Software Engineers, Software Developers, faculty members, and entrepreneurs. Many of the graduates from DCS are running their own multi-millionaire companies as entrepreneurs. Because of international collaboration of Department, some students are studying at Wuhan Textile University China and University of Huddersfield United Kingdom.

Faculty Profile Department of Computer Science

Dr. Mudassar Ahmad

Assistant Professor / Chairman
PhD Computer Science
(University Technology, Malaysia)

Dr. Muhammad Asif Habib

Associate Professor / Chairman
PhD Computer Science (JKU-Austria)
M.Sc. Computer Science (PUCIT Lahore)

Dr. Muhammad Asif

Associate Professor
PhD Computer Science (AIT Thailand)
M.Sc. (CS) QAU (Islamabad)

Mr. Shahbaz Ahmad

Assistant Professor
MSCS (UAF)
M.Sc. Computer Science (UAF)

Mr. Waqar Ahmad

Assistant Professor
MSCS (BTH, Sweden)
M.Sc. Computer Science (PU)

Dr. Rehan Ashraf

Assistant Professor
PhD Computer Engineering (UET Taxila)
M.Sc. Computer Engineering (UET Taxila)

Dr. Muhammad Nadeem Faisal

Assistant Professor
PhD Computer Engineering, (UNIOVI, Spain)
MS Computer Science (BTH, Sweden)
BS in Information Technology (Pakistan)

Dr. Haseeb Ahmad

Assistant Professor
PhD Computer Science (China)
Master of Computer Science (VU, Pakistan)

Faculty Profile Department of Computer Science

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Ph.D. Computer Science & Technology (China)
MSCS (UAF)

Dr. Toqeer Mahmood

Assistant Professor
PhD Computer Engineering (UET, Taxila)
M.Sc. Computer Engineering (UET Taxila)

Dr. Hamid Ali

Assistant Professor
PhD Computer Science
(NU-FAST, Pakistan)

Dr. Muhammad Abdul Qayum

Assistant Professor
PhD Computer Science (COMSATS, Pakistan)
MSCS (UAF, Pakistan)

Dr. Muhammad Adeel

Assistant Professor
PhD Computer Science (NTU)
MSCS (GCUF)
M.Sc. Information Technology (QAU, Pakistan)

Dr. Sajida Parveen

Assistant Professor
Phd. Computer Science UET, Lahore, Pakistan
Ms. Computer Science Arid Agriculture
University, Rawalpindi, Pakistan

Mr. Nasir Mehmood

Lecturer
M.Sc. Computer Engineering (UET, Taxila)

Mr. Muhammad Shahid

Lecturer
MS Software Engineering
(Linköping University, Sweden)

Faculty Profile Department of Computer Science

Shahbaz Ahmad Sahi

Lecturer
MSCS (NTU, Pakistan)

Mr. Muhammed Naeem

Lecturer
MSCS (UAF, Faisalabad)
MSc (UAF, Faisalabad)

Dr. Wasim Hassan

Lecturer
PhD English Linguistics (IUB, Pakistan)

Mr. Muhammad Abrar Tahir

Lecturer
M.Phil English Linguistics (GCUF)
M.A English Language & Literature (GCUF)

Bachelor of Science in Computer Science

Introduction

BS (CS) was the first program launched by the Department of Computer Science in 2009. This program was designed to tailor the needs of the Local and International market. The curriculum of this program is regularly updated as per modern demand. Almost 600+ alumni of this program is serving the Computer Science industry. This program was first time accredited back in 2012 with the highest ranks. All passed out batches of BS(CS) are accredited from HEC.

Program Education Objectives (PEOs)

Following are the objectives for BS(CS) program:

Depth: Computer Science graduates will have a sufficient understanding of the field of Computer Science, including scientific principles, analysis techniques, and design methodologies.

Breadth: Computer Science graduates will have a broad liberal education enabling them to

1. Demonstrate adaptability or leadership by, for example, being promoted, moving up to a better job, or taking a leadership role in a team.
2. Demonstrate an understanding of the context and broader impacts of technology in their organization.

Professionalism: Computer Science graduates will be prepared for modern work environments, where they will:

1. Apply their skills in clear communication, responsible teamwork, and time management
2. Demonstrate professional attitudes and ethics by quality and safety.

Program Learning Outcomes (PLOs)

The learners will acquire the following skills on completion of the degree:

PLO Title	PLO Description
Computing Knowledge	An ability to apply knowledge of computer science, mathematics, and domain knowledge appropriate for computer science to the abstraction and conceptualization of computing models from defined problems and requirements.
Problem analysis	Identify, formulate, research literature, and solve complex computing problems reaching substantiated conclusions using fundamental principles of mathematics, computing sciences, and software engineering.
Solution design	An ability to design solutions for complex software engineering problems and design systems, components, or processes that meet specified needs while maintaining computing standards, cultural, societal, and environmental considerations.
Investigation	An ability to investigate complex computing problems in a systematic way including literature survey, design and development of systems, analysis and interpretation of computational data, and synthesis of the information to derive valid conclusions.
Modern tool usage	Create, select, adapt, and apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of the limitations.
Management	An ability to demonstrate management skills and apply computing principles to one's work, as a member and leader in a team, to manage projects in a multidisciplinary environment.
Communication	Communicate effectively with the computing community and with society at large about complex computing activities by being able to comprehend and write useful reports, design documentation, make effective presentations, and give and understand clear instructions.
Individual and teamwork	Function effectively as an individual and as a member or leader in diverse teams and multidisciplinary settings.
Ethics	Understand and commit to professional ethics, responsibilities, and norms of professional computing practice.
Life-long learning	Recognize the need, and have the ability to engage in independent learning for continual development as a computing professional.

BS COMPUTER SCIENCE

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-1001	Calculus	3	0	3
PH-1004	Applied Physics	3	1	4
ENG-1091	Functional English	3	0	3
CS-1075	Introduction of Computing	2	1	3
CSC-1072	Discrete Structures	3	0	3
	Total	**14**	**2**	**16**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-1005	Linear Algebra	3	0	3
ENG-1092	Communication & Presentation Skills	3	0	3
HU-1092	Pakistan Studies	2	0	2
CSC-1071	Programming Fundamentals	3	1	4
SS-1093	Introduction to Psychology	3	0	3
HU-1091	Islamic Studies	2	0	2
	Total	**16**	**1**	**17**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
CSC-2078	Database Systems	3	1	4
MGT-1081	Management Elective - I	3	0	3
CSC-2071	Object Oriented Programming	3	1	4
CSC-1074	Digital Logic Design	3	1	4
CSC-2073	Software Engineering Fundamentals	3	0	3
	Total	**15**	**3**	**18**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
STAT-2003	Probability and Statistics	3	0	3
MA-2002	Multivariate Calculus	3	0	3
ENG-3091	Technical Writing	3	0	3
CSC-2077	Data Structures and Algorithms	3	1	4
CSC-2075	Computer Organization & Assembly Language	3	1	4
	Total	**15**	**2**	**17**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
CSC-3071	Design and Analysis of Algorithms	3	0	3
CSC-2074	Data Communication and Networks	3	1	4
CSC-3072	Operating Systems	3	1	4
CSC-2076	Theory of Automata and Formal Languages	3	0	3
MA-3003	Graph Theory	3	0	3
	Total	**15**	**2**	**17**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-4001	Numerical Computing	2	1	3
CSC-3073	Introduction to Artificial Intelligence	2	1	3
TE-1113	Introduction to Textiles	3	0	3
CSE-XXXX	CS Elective I	3	0	3
CSE-XXXX	CS Elective II	3	0	3
CSC-4076	Parallel and Distributed Computing	3	0	3
	Total	**16**	**2**	**18**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
CSC-4071	BS Final Project-I	0	3	3
CSC-4072	Compiler Construction	3	0	3
SS-4071	Professional Practices	3	0	3
CSE-XXXX	CS Elective III	3	0	3
CSE-XXXX	CS Elective IV	3	0	3
	Total	**12**	**3**	**15**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
CSC-4075	Information Security	3	0	3
CSC-4071	Final Year Project-II	0	3	3
CSE-XXXX	CS Elective V	3	0	3
MGT-4085	Management Elective – II	3	0	3
	Total	**9**	**3**	**12**

Industrial Internship (4 weeks, 6days/week, 8 hours/day during summer holidays after 2nd Year	0	1	1
Total Credits for BS Computer Science	132		

Bachelor of Science in Software Engineering

Introduction

Software Engineering is the discipline of designing, developing, deploying, and maintaining reliable, economical, and efficient software systems. However, more recently, Software Engineering has evolved in response to the increased importance of software in safety-critical applications and the growing impact of large and expensive software systems in a wide range of situations.

Program Education Objectives (PEOs)

Depth: Software Engineering graduates will have a sufficient understanding of the field of software engineering, including engineering principles, problem analysis techniques, and solution design methodologies, to be successfully employed, pursue a graduate degree, or continue their professional education.

Breadth: Software engineering graduates will have a broad liberal education enabling them to

1. Demonstrate adaptability or leadership by, for example, being promoted, moving up to a better job, or taking a leadership role in a team.
2. Demonstrate an understanding of the context and broader impacts of technology in their organization by, for example, engaging stakeholders outside their immediate team or by identifying ethical, economic, cultural, legal, or environmental issues related to work projects.

Professionalism: Software engineering graduates will be prepared for modern work environments, where they will:

1. Apply their skills in clear communication, responsible teamwork, and time management by, for example, managing a team or project, working on multidisciplinary project teams, or communicating with external stakeholders.
2. Demonstrate professional attitudes and ethics by, for example, assisting colleagues in professional development (e.g., mentoring), engaging in continuing education or training, participating in professional societies, engaging in service to the community, or contributing to an employer's efforts to comply with software licensing, protect privacy, or assure quality and safety.

Program Learning Outcomes (PLOs)

The learners will acquire the following skills on completion of the degree:

PLO Title	PLO Description
Knowledge	Ability to apply knowledge of Computing Fundamentals, Software Engineering Fundamentals, Mathematics, and domain knowledge appropriate for the Software Engineering to the abstraction and conceptualization of computing models from defined problems and requirements.
Problem analysis	Identify, formulate, research literature, and solve complex computing problems reaching substantiated conclusions using fundamental principles of mathematics, computing sciences, and Software Engineering.
Solution design	Ability to design solutions for complex Software Engineering problems and design systems, components, or processes that meet specified needs while maintaining computing standards, cultural, societal, and environmental considerations.
Investigation	Ability to investigate complex Software Engineering problems systematically, including literature survey, design and development of systems, analysis and interpretation of computational data, and synthesis of the information to derive valid conclusions.
Modern tool usage	Create, select, adapt, and apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of the limitations.
Management	Be able to understand and apply the software team and project management skills: measurement, estimation, costing, planning, deployment, and tracking of resources.
Communication	Communicate effectively with the computing community and with society at large about complex computing activities by being able to comprehend and write useful reports, design documentation, make effective presentations, and give and understand clear instructions.
Individual and teamwork	Function effectively as an individual and as a member or leader in diverse teams and multidisciplinary settings.
Ethics	Understand and commit to professional ethics, responsibilities, and norms of professional computing practice.
Life-long learning	Recognize the need, and have the ability to engage in independent learning for continual development as a computing professional.

BS SOFTWARE ENGINEERING

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-1001	Calculus	3	0	3
CS-1075	Introduction to Computing	2	1	3
ENG-1091	Functional English	3	0	3
CSC-1072	Discrete Structures	3	0	3
PH-1004	Applied Physics	3	1	4
	Total	**14**	**2**	**16**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-1005	Linear Algebra	3	0	3
ENG-1092	Communication & Presentation Skills	3	0	3
HU-1092	Pakistan Studies	2	0	2
CSC-1071	Programming Fundamentals	3	1	4
HU-1091	Islamic Studies	2	0	2
MGT-1081	Fundamentals of Management I	3	0	3
	Total	**16**	**1**	**17**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
CSC-2078	Database Systems	3	1	4
CSC-2073	Software Engineering Fundamentals	3	0	3
CSC-2071	Object-Oriented Programing	3	1	4
ENG-3091	Technical Writing	3	0	3
ITC-2071	Operations Research	3	0	3
	Total	**15**	**2**	**17**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
STAT-2003	Probability and Statistics	3	0	3
SEC-2071	Software Requirements Engineering	3	0	3
CSC-2077	Data Structures and Algorithms	3	1	4
CSC-2074	Data Communication and Networks	3	1	4
CSC-2075	Human Computer Interaction	3	0	3
	Total	**15**	**2**	**17**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
CSC-3072	Operating Systems	3	1	4
SEC-3072	Software Architecture and Design	3	0	3
SEC-4072	Web Engineering	2	1	3
SEC-2070	Software Construction and Management	3	0	3
MGT-3071	Software Project Management	3	0	3
	Total	**14**	**2**	**16**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
SEC-4072	Formal Methods in Software Engineering	3	0	3
SS-1093	Introduction to Psychology	3	0	3
SEE-XXXX	SE Elective-I	3	0	3
SEE-XXXX	SE Elective-II	3	0	3
SEC-3075	Software Re-Engineering	3	0	3
TE-1113	Introduction to Textile	3	0	3
	Total	**18**	**0**	**18**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
CSC-4073	Information Security	3	0	3
CSC-4071	Final Year Project-I	0	3	3
SEE-XXXX	SE Elective-III	3	0	3
SEE-XXXX	SE Elective-IV	3	0	3
SEC-3073	Software Quality Engineering	3	0	3
SS-4071	Professional Practices	3	0	3
	Total	**15**	**3**	**18**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
CSC-4071	Final Year Project-II	0	3	3
SEE-XXXX	SE Elective-V	3	0	3
MGT-4085	Management Elective - II	3	0	3
ITC-4073	Modeling and Simulation	3	0	3
	Total	**9**	**3**	**12**

Industrial Internship (4 weeks, 6days/week, 8 hours/day during summer holidays after 2nd Year)	0	1	1
Total Credits for BS Software Engineering	132		

Bachelor of Science in Artificial Intelligence

Introduction

The Bachelor of Science in Artificial Intelligence - BS(AI) program gives students the in-depth knowledge they need to transform large and complex scenarios into actionable decisions. The program and its curriculum focus on how complex inputs — such as knowledge, vision, language, and huge databases — can be used to make decisions to enhance human capabilities. The BS (AI) program curriculum includes coursework in computing, mathematics, automated reasoning, statistics, computational modelling, introduction to classical artificial intelligence languages and case studies, knowledge representation and reasoning, artificial neural networks, machine learning, and natural language processing vision and symbolic computation. The program also encourages students to take courses in ethics and social responsibility, with the opportunity to participate in long term projects in which artificial intelligence can be applied to solve problems that can change the world for the better — in areas like agriculture, defense, healthcare, governance, transportation, e-commerce, finance, and education.

Program Education Objectives (PEOs)

Contribute to the country's socio-economic growth by solving real-world problems in general and areas of national importance in particular, using fundamental principles of computer science and domain knowledge related to artificial intelligence.

Achieve professional success by practicing ethical behavior, computing professionalism, and diversity with effective communication in individual and team.

Program Learning Outcomes (PLOs)

The learners will acquire the following skills on completion of the degree:

PLO Title	PLO Description
Academic Education	To prepare graduates as computing professionals
Computing Knowledge	An ability to apply knowledge of computer science, mathematics, statistics, and domain knowledge appropriate for artificial intelligence to the abstraction and conceptualization of computing models from defined problems and requirements
Problem analysis	Identify, formulate, research literature, and solve complex computing problems reaching substantiated conclusions using fundamental principles of mathematics, computing sciences, statistics, and artificial intelligence.
Solution design	An ability to design solutions for complex problems and design systems, components, or processes that meet specified needs while maintaining computing standards, cultural, societal, and environmental considerations.
Modern tool usage	Create, select, adapt, and apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of the limitations
Project and Team Management	An ability to demonstrate management skills and apply computing principles to one's work, as a member and leader in a team, to manage projects in a multidisciplinary environment.
Communication	Communicate effectively with the computing community and with society at large about complex computing activities by being able to comprehend and write useful reports, design documentation, make effective presentations, and give and understand clear instructions
Computing Professionalism and Society	Understand and assess societal, health, safety, legal, and cultural issues within local and global contexts, and the consequential responsibilities relevant to professional computing practice
Individual and teamwork	Function effectively as an individual and as a member or leader in diverse teams and multidisciplinary settings
Ethics	Understand and commit to professional ethics, responsibilities, and norms of professional computing practice
Life-long learning	Recognize the need, and have the ability, to engage in independent learning for continual development as a computing professional

BACHELOR OF SCIENCE IN ARTIFICIAL INTELLIGENCE

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
CS-1075	Introduction to ICT	2	1	3
HU-1092	Pakistan Studies	2	0	2
ENG-1091	Functional English	3	0	3
PH-1004	Applied Physics	3	1	4
CSC-1072	Discrete Structures	3	0	3
MA-1001	Calculus	3	0	3
	Total	**16**	**0**	**18**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
MA-1005	Linear Algebra	3	0	3
ENG-1092	Communication & Presentation Skills	3	0	3
HU-1092	Pakistan Studies	2	0	2
CSC-1071	Programming Fundamentals	3	1	4
SS-1093	Introduction to Psychology	3	0	3
HU-1091	Islamic Studies	2	0	2
	Total	**16**	**1**	**17**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
CSC-2078	Database Systems	3	1	4
CSC-2073	Software Engineering Fundamentals	3	0	3
CSC-2071	Object Oriented Programming	3	1	4
CSC-1074	Digital Logic Design	3	1	4
XX-XXXX	Differential Equations	3	0	3
	Total	**15**	**3**	**18**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
CSC-3073	Artificial Intelligence	3	1	4
CSC-2075	Computer Organization & Assembly Language	3	1	4
ENG-3091	Technical Writing	3	0	3
CSC-2077	Data Structures and Algorithms	3	1	4
STAT-2003	Probability and Statistics	3	0	3
	Total	**15**	**3**	**18**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
CSC-3071	Design and Analysis of Algorithms	3	0	3
CSC-2074	Data Communication and Networks	3	1	4
CSC-3072	Operating Systems	3	1	4
XXX-XXXX	Programming for Artificial Intelligence	2	1	3
XXX-XXXX	AI Elective I	3	0	3
	Total	**14**	**3**	**17**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
XXX-XXXX	Machine Learning	2	1	3
XXX-XXXX	Knowledge Representation & Reasoning	3	0	3
XXX-XXXX	University Elective III	3	0	3
CSE-XXXX	AI Elective II	3	0	3
CSE-XXXX	AI Elective III	3	0	3
CSC-XXXX	Parallel and Distributed Computing	3	0	3
	Total	**17**	**1**	**18**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
CSC-4071	BS Final Project-I	0	2	2
XXX-XXXX	Artificial Neural Networks	2	1	3
SS-4071	Professional Practices	3	0	3
XXX-XXXX	Natural Language Processing	3	0	3
XXX-XXXX	AI Elective IV	3	0	3
	Total	**11**	**3**	**14**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
CSC-4075	Information Security	3	0	3
CSC-4071	BS Final Project-II	0	4	4
CSE-XXXX	Computer Vision	2	1	3
XXX-XXXX	University Elective IV	3	0	3
	Total	**8**	**5**	**13**

Industrial Internship (4 weeks, 6days/week, 8 hours/day during summer holidays after 2nd Year)	0	1	1
Total Credits for BS Artificial Intelligence	132		

SCHOOL OF ARTS & DESIGN

SCHOOL OF ARTS & DESIGN

Mission Statement

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

Introduction

The four-year degree programs in Fashion, Textile Design, Visual Arts, Animation & Multimedia Design and Interior Design at our esteemed institution offer students a comprehensive and interdisciplinary approach to probe into the conceptual and theoretical foundations of the design process and methodology. With an emphasis on research-based learning, these programs equip students with the essential skills needed to thrive in their future careers. Through a dynamic blend of lectures, seminars, and hands-on studio work, students are encouraged to foster collaboration and teamwork on various design projects.

At the School of Arts and Design, we are committed to providing students with an education that goes beyond the classroom, preparing them for successful and fulfilling careers in their respective fields. Our programs embrace creativity, critical thinking, and innovation, fostering an environment where students can explore their artistic potential and develop a deep understanding of design principles.

Through engaging coursework, mentorship, and access to state-of-the-art facilities, we empower our students to push boundaries, challenge conventions, and make a positive impact in the ever-evolving world of design. We believe in nurturing their unique talents and equipping them with the necessary tools and knowledge to excel in their chosen paths.

Whether our graduates embark on careers in fashion, textile design, visual arts, or interior design, they are well-prepared to navigate the professional landscape with confidence and proficiency. Join us at the School of Arts and Design and embark on a transformative journey that will shape your future and pave the way for a successful and fulfilling career.

Why to study design

If you possess creativity and a keen eye for detail, pursuing design studies will equip you with the tools necessary to bring your ideas to life. With the right skill set, you can work anywhere in the world, and freelancing has increasingly become the preferred choice for designers. Designers are highly sought after in various fields, ranging from product design to web design, making a degree in design an excellent choice for job seekers. Moreover, earning a degree in design opens up a wide range of career options.

Not only will you have the opportunity to earn a living, but you will also have the ability to make a visual impact with your creations. Whether you're designing a simple logo or working on a complex project, you will always play a significant role as the face behind a campaign, brand, or product. Life as a designer is filled with excitement, satisfaction, and a constant influx of fresh ideas. Each day presents new challenges and opportunities for thought-provoking creativity, allowing you to showcase your presence with a bang.

By studying design, you can pursue financial independence, become your own boss, fulfill your inner creative drive, and make a lasting impact on the world by transforming ideas into reality.

Facilities

The School of Arts and Design is housed in a purpose-built building that offers an extensive range of state-of-the-art facilities, providing students with an exceptional environment to support their creative endeavors and technological exploration.

Students have access to a high-tech design lab equipped with cutting-edge tools and machinery. The lab includes a multiple substrate printing facility, allowing students to print their designs on various materials. Additionally, there is a 3D printing facility that enables students to bring their three-dimensional creations to life. For those interested in textiles, the lab features a multiheaded embroidery facility, offering opportunities for intricate and detailed fabric embellishments.

SCHOOL OF ARTS & DESIGN

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

To cater to students working with ceramics, the school provides a high-temperature furnace for firing and glazing their ceramic creations, facilitating the production of durable and visually stunning ceramic artworks. The facility also includes a multi-material laser cutting system, which allows students to precisely cut and shape a wide range of materials, opening up possibilities for innovative and intricate design solutions.

In addition to these specialized facilities, the school houses a latest photography studio with a purpose-built cyclorama wall. This studio provides students with the perfect setting for capturing high-quality images of their creations, ensuring that their work is presented in the best possible light.

The School of Arts and Design understands the importance of technology in the design industry. To support the integration of technology into design processes, students have access to an advanced ICT and computing facility. Equipped with state-of-the-art hardware and software, this dedicated lab enables students to develop contextual digital and photographic work, enhancing their projects with cutting-edge technological tools.

Furthermore, the school takes pride in its collaboration with the School of Engineering and Technology. This partnership creates an enriching and interdisciplinary educational experience, combining artistic creativity with advanced technological development. Students benefit from a well-rounded education that incorporates the latest advancements in design practices, positioning them at the forefront of the industry.

With its exceptional range of facilities, the School of Arts and Design provides an inspiring and innovative environment for students to explore their artistic potential, push boundaries, and flourish in their chosen fields.

Career Paths

The well-designed curriculum of Textile, Fashion Design, Visual Arts, Animation & Multimedia Design & Interior Design offers students a multitude of exciting career paths to explore. Graduates can embark on diverse professional journeys in fields such as:

1. Textile Designer: Apply artistic and technical skills to create innovative textile designs for various industries, including fashion, home decor, and automotive.
2. Fashion Designer: Develop and design clothing and accessory collections, keeping abreast of the latest trends and consumer preferences.
3. Surface Designer: Specialize in creating patterns and designs for surfaces such as fabrics, wallpapers, and interior decor items.
4. Stylist: Collaborate with individuals, fashion brands, or media organizations to curate and create visually appealing outfits and looks.
5. CAD/CAM Designer: Utilize computer-aided design and manufacturing tools to create digital models and prototypes for product development in industries like fashion and industrial design.
6. Technical Designer: Work closely with production teams to ensure accurate execution of designs, focusing on fit, construction, and quality control.
7. Freelance Artist: Pursue freelance opportunities to showcase artistic skills across various mediums, collaborating with clients on custom projects or contributing to exhibitions and galleries.
8. Textile Artist: Explore the artistic side of textile design, creating unique textile artworks or installations for galleries, museums, or public spaces.
9. Graphic Artist: Apply design principles and visual communication techniques to create compelling graphics, illustrations, and branding materials.
10. Ceramic and Jewelry Designer: Design and craft ceramics or jewelry pieces, incorporating artistic vision, materials, and techniques to produce one-of-a-kind creations.

11. Product Specialist: Work in collaboration with manufacturing and marketing teams to develop and improve product designs, ensuring they meet customer needs and market demands.
12. Entrepreneurship: Graduates with an entrepreneurial spirit can establish their own design businesses or studios, showcasing their unique style and vision to a wider audience.
Certainly! In addition to the previously mentioned career paths, graduates of an Interior Design program can explore various opportunities in the field, such as:
13. Interior Designer: Create functional and aesthetically pleasing interior spaces for residential, commercial, or public environments, incorporating elements such as furniture, lighting, colors, and textures.
14. Space Planner: Analyze and optimize spatial layouts to enhance efficiency and usability in workplaces, retail stores, hospitality venues, or other built environments.
15. Exhibition Designer: Conceptualize and design engaging exhibition spaces for museums, galleries, trade shows, or events, creating immersive experiences for visitors.
16. Set Designer: Collaborate with theater, film, or television productions to design and create sets that bring stories to life and establish the desired ambiance.
17. Retail Store Designer: Develop store layouts and designs that align with brand identities, optimizing customer flow, visual merchandising, and product presentation.
18. Sustainable Design Specialist: Focus on incorporating environmentally friendly and sustainable practices into interior design projects, considering factors such as energy efficiency, material selection, and indoor air quality.
19. Healthcare Facility Designer: Design functional and therapeutic environments for hospitals, clinics, or assisted living facilities, considering the specific needs of patients, staff, and visitors.
20. Hospitality Designer: Create captivating and inviting spaces for hotels, restaurants, bars, or resorts, ensuring a seamless blend of aesthetics, comfort, and functionality.
21. Workplace Consultant: Assess and optimize work environments to improve productivity, employee well-being, and collaboration within office settings.
22. Furniture Designer: Specialize in designing unique and innovative furniture pieces that balance style, comfort, and functionality.

23. Design Project Manager: Oversee and coordinate interior design projects, collaborating with clients, contractors, and suppliers to ensure successful execution and timely completion.
24. Design Educator: Pursue a career in teaching interior design at educational institutions, sharing knowledge and mentoring future generations of designers.

These are just a few examples of the diverse career paths available to graduates of different Design programs The comprehensive curriculum provided by the School of Arts and Design equips students with the necessary skills and knowledge to pursue successful careers in these diverse fields. Graduates are empowered to embrace opportunities, unleash their creativity, and make a meaningful impact in the world of design.

Programs offered by School of Arts and Design

- Bachelor of Fashion Design
- Bachelor of Textile Design
- Bachelor of Visual Arts
- Bachelor of Animation and Multimedia Design
- Bachelor of Interior Design

Faculty Profile School of Arts & Design

Dr. Zafar Javed

Assistant Professor/Director (SoAD)
PhD (TUT) Finland
M.Sc (Ghent) Belgium
B.Sc Textile Engineering (UET) Lahore

Saleem Ansari

Assistant Professor/Program Head
(Visual Arts)
MFA (PU, Lahore)

Dr. Salman Naeem

Assistant Professor
PhD in Textile Technics & Materials Engineering
(TUL, Czech Republic)
MS Textile Engineering (NTU, Faisalabad)

Dr. Muhammad Yaseen

Assistant Professor
Ph.D. in Islamic Studies (IUB)
M.Phil Islamic Studies (IUB)
M.A. in Islamic Studies (IUB)

Dr. Muhammad Mushtaq

Assistant Professor
PhD. Textile Science and Engineering (China)
MSc. Textile Science and Engineering (China)
BSc. Textile Design Technology (UMT, Lahore)

Nida Ramzan

Assistant Professor
Program Head BS Animation & Multimedia Design
MA Visual Arts (NCA)

Rana Shahid Zaheer

Assistant Professor
Program Head BS Fashion Design
MSc Hons Clothing and Textile (UAF)

Aroobah Mumtaz

Lecturer/Program Head (Textile Design)
M.Sc Hons. Clothing and Textile (UAF)
M.Sc in Arts and Design (HE College)

Sidrat Nasir

Lecturer
MS Textile and Clothing (GCUF, Faisalabad)
Bachelor of Textile Design
(Lahore College for Woman University, Jhang)

Faculty Profile School of Arts & Design

Dr. Muhammad Usman Javaid

Assistant Professor
Ph.D Textile Technics and Materials Engineering (TUL, Czech Republic)
MIT- Masters of Information Technology (Virtual University of Pakistan)

Ehsan Ali

Lecturer
MSc-Hons Clothing & Textile (UAF)
Bachelor of Textile Design (GCUF)

Muhammad Umer Iqbal

Lecturer
M.Phil in Clothing & Textile (NTU)
Bachelor of Textile and Apparel Design (NTU)

Sadia Musaddiq

Lecturer
MS in Textile and Clothing (GCUF)
Bachelor of Fashion Design (GCUF)

Zunaira Saleem

Lecturer
MSc-Hons Clothing & Textile (UAF)
Bachelor of Fashion Design (GCUF)

Zarjan Ali

Lecturer
M.Phil Fashion Design (Wuhan, China)

Muhammad Saqib

Lecturer
M.Phil Fashion Design (Wuhan, China)

Muhammad Afzaal

Lecturer/ Industrial Co-ordinator
MS (Hons.) Clothing and Textile (UAF)
BS (Hons.) Fashion Design and Technology (NTU, Faisalabad)

Faculty Profile School of Arts & Design

Rafia Asghar

Lecturer
MS in Textile and Clothing (GCUF)
Bachelors of Textile and Apparel Design
NTU, Faisalabad

Muhammad Zohaib Fazal

Lecturer
MS Information Technology (NUST, Islamabad)
B.Sc Textile Engineering (NTU, Faisalabad)

Mahreen Ahsan

Lecturer
MPhil Literature (Riphah University, Islamabad.)_
Masters in English Literature (IUB)

Mubarra Rafiq

Lecturer
Bachelor in Textile Design (NCA)

Anam Nasir

Lecturer
Masters of Arts and Design Fashion Design (China)
Bachelor of Textile design and Technology (NTU)

Syyrra Ali

Lecturer
MA Hons. Visual arts, National college of Arts, (Lahore)
BFA Miniature painting, Kinnaird college for women university, (Lahore)

Sidra Munir

Lecturer
MSc Hons CP-Thing and Textile (UAF)
Bachelor of Fashion Design (GCUF)

Maham Nadeem

Lecturer
Masters of Arts and Design Fashion Design (China)
Bachelor of Textile design and Technology (NTU)

Umer Hameed

Assistant Professor
MS in Textile and Clothing (GCUF)
Bachelor of Textile Design NCA, Lahore

Bachelor of Fashion Design

Program Objectives

1. To yield quality graduates in the field of Textile & 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 sources 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.

Program 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 designers, pattern maker 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 bounders of ethics, codes of conduct and religions.

BACHELOR OF FASHION DESIGN

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
NS-1093	Human Anatomy	3	0	3
SS-1091	Sociology	3	0	3
NS-1094	Quantative Reasoning-I	3	0	3
AH-1091	History of Art & Design	3	0	3
ENG-1096	Expository Writing-I	3	0	3
FA-1095	Drawing Foundation-I	0	2	2
	Total	**15**	**2**	**17**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
NS-1095	Human Ecology	3	0	3
SS-1092	Psychology	3	0	3
NS-1096	Quantative Reasoning-II	3	0	3
AH-1092	History of Art & Design-II	3	0	3
ENG-1097	Expository Writing-II	3	0	3
FA-1096	Drawing Foundation-II	0	2	2
	Total	**15**	**2**	**17**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
ENG-2091	Expository Writing-III	3	0	3
HU-2091	Islamic Studies	3	0	3
HU-2092	Pak Studies for Designers	3	0	3
DES-2091	Color & Design Fundamentals	1	2	3
TEC-2091	Fibre & Yarn Manufacturing	3	0	3
	Total	**13**	**2**	**15**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
TEC-2092	Fabric Manufacuring-I	1	2	3
FD-2091	Fundamentals of Flat Pattern	1	2	3
FD-2092	Basic Drapping	0	2	2
FD-2093	Basic Sewing	1	2	3
FD-2094	Fashion Design Studio-I	1	2	3
	Total	**4**	**10**	**14**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
FD-2095	Pattern & Grading	1	2	3
FD-2096	Drapping Based Design Construction	0	2	2
FD-2097	Cut & Sew Techniques	1	2	3
DD-2091	CAD-I for Designers	1	2	3
FD-2094	Fashion Design Studio-II	1	2	3
	Total	**4**	**10**	**14**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
FD-3091	Digital Fashion Designing	0	2	2
FD-3092	Pattern Collection-I	0	3	3
FD-3093	Haute Couture Draping-I	0	3	3
FD-3094	Emberiodery & Embellishment Techniques	0	3	3
FD-3095	Fashion Design Studio-III	1	2	3
	Total	**1**	**13**	**14**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
DES-4091	Visual Story Telling	1	1	2
RM-3091	Research Methodology	2	1	3
FD-4091	Advance Digital Design	0	3	3
FD-4092	Haute Couture Draping-II	0	3	3
FP-4091	Final-Project-I	0	3	3
	Total	**3**	**11**	**14**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
DEC-4092	Technopronuership	1	2	3
DES-4093	Digital Portfolio Development	0	2	2
FD-4093	Accesories Design	0	2	2
FD-4094	Fashion Products Planning & Costing	2	0	2
FP-4092	Final Year Project-II	0	3	3
HU-4091	Foriegn Language	2	0	2
	Total	**5**	**9**	**14**

	Theory	Lab	Credit Hr.
Internship during summer holidays (DES-3091)	0	1	1
Total Credits for Bachelor of Fashion Design	60	60	120

Bachelor of Textile Design

Program Objectives

1. To indulge theoretical study of Textile Design and its technical aspects in the students.
2. To generate human resources in the field of design with the intense knowledge of technology & command on creative process specifically to the sectors related to fabric & Textiles.
3. To impart students about the importance of aesthetics & functionality at every phase of designing, sampling, production, marketing and merchandizing.
4. To teach the students about the moral & Ethical values of the society so they can contribute well as designer & Human being.
5. To give knowledge of Research so they can apply it in further studies and advancement in practical field.

Program Outcomes

1. After formal education graduates have the ability to work as woven and print designer in the market.
2. Graduates have ability to work as embroidery and embellishment designers with knowledge of modern embroidery machine and traditional embroidery work.
3. Graduates will have ability to provide services as home textile and stuff toy designer.
4. Graduates will be able to work in the field of arts as textile artists, Fabric installation Artist, Soft sculptor.
5. Graduates will have the ability to perceive designs and able to lead design houses & Studios.
6. Graduates will be able to work as communication designer/ graphic designer particularly for textile sector and have the ability to work as Visual Merchandiser.
7. Graduates are given the intense knowledge of Digital Technology and can work as Computer Aided Designer in the design world.
8. Graduates will have the ability to work interdisciplinary tasks in a Team.
9. Have the ability to play its role as good citizen with in code & conducts of the society & religion.

BACHELOR OF TEXTILE DESIGN

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
NS-1093	Human Anatomy	3	0	3
SS-1091	Sociology	3	0	3
NS-1094	Quantative Reasoning-I	3	0	3
AH-1091	History of Art & Design	3	0	3
ENG-1096	Expository Writing-I	3	0	3
FA-1095	Drawing Foundation-I	0	2	2
	Total	**15**	**2**	**17**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
NS-1095	Human Ecology	3	0	3
SS-1092	Psychology	3	0	3
NS-1096	Quantative Reasoning-II	3	0	3
AH-1092	History of Art & Design-II	3	0	3
ENG-1097	Expository Writing-II	3	0	3
FA-1096	Drawing Foundation-II	0	2	2
	Total	**15**	**2**	**17**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
ENG-2091	Expository Writing-III	3	0	3
HU-2091	Islamic Studies	3	0	3
HU-2092	Pak Studies for Designers	3	0	3
DES-2091	Color & Design Fundamentals	1	2	3
TEC-2091	Fibre & Yarn Manufacturing	3	0	3
	Total	**13**	**2**	**15**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
FA-2090	Drawing For Designers	0	3	3
DD-2091	CAD-I for Designers	1	2	3
TEC-2092	Fabric Manufacuring	1	2	3
TD-2091	Pattern & Sewing-I	1	2	3
TD-2092	Textile Design Studio-I	1	2	3
	Total	**4**	**11**	**15**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
TEC-3091	Fabric Manufacturing-II (Basic Weave Design)	1	2	3
TEC-3092	Textile Processing	2	0	2
TD-3091	Pattern & Sewing-II	1	2	3
TD-3092	Textile Design Studio-II	1	2	3
DD-3091	CAD-II for Designers	0	3	3
	Total	**5**	**9**	**14**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
TEC-3093	Applied Fabric Structures	0	2	2
TD-3093	Textile Product Design	1	2	3
TD-3094	Emberiodery & Embellishment Techniques	0	3	3
TD-3095	Textile Design-III	0	3	3
DD-3092	CAD-III for Designers	0	3	3
	Total	**1**	**13**	**14**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
DES-4091	Visual Story Telling	1	1	2
RM-3091	Research Methodology	2	1	3
TD-4091	Ethnic Textile Designs	0	3	3
TEC-4091	Functional Textiles	3	0	3
FP-4091	Final-Project-I	0	3	3
	Total	**6**	**8**	**14**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
DEC-4092	Technopronuership	1	2	3
DES-4093	Digital Portfolio Development	0	2	2
DES-4094	Design Ethics	3	0	3
HU-4091	Foriegn Language	2	0	2
FP-4092	Final Year Project-II	0	3	3
	Total	**6**	**7**	**13**

	Theory	Lab	Credit Hr.
Internship during summer holidays (DES-3091)	0	1	1
Total Credits for Bachelor of Fashion Design	65	55	120

Bachelor of Visual Arts

Program Objectives

1. The program aims to promote excellence in teaching and learning by providing students with quality coaching in Art, History and studio courses in the visual arts.
2. To provide learning opportunities for the liberal arts, in preparation for diverse professions in the world of visual arts.
3. To develop art graduates who are well versed in liberal arts, good critical thinkers and effective.
4. Communicators and reflect the ability to use art as a medium to create a constructive attitude in their life, their work and in their community.

Program Outcomes

After completion of BVA degree student will:

1. Have a working knowledge of visual arts studio Practice.
2. Demonstrate knowledge of art theoretical and historical content through studio practice.
3. Demonstrate particular depth of knowledge in the studio practice of painting and drawing.
4. Acquire the ability to analyze and interpret art and cultural products within the art world and within a broader context of cultural production.
5. Be able to express ideas and opinions cogently through oral, written, and nonverbal (visual) channels.
6. Demonstrate an understanding of the art industry and its cultural contexts through written and oral communication.
7. Be able to employ a range of digital media technologies to create art works.
8. demonstrate a high level of skill in both the manipulation of digital technologies as well as creative extension of such technologies
9. Develop skills in identifying, analyzing and solving creative problems through studio practice.
10. Employ visual arts methodologies to define and explore new problems or re-frame existing ones.

BACHELOR OF VISUAL ARTS

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
NS-1093	Human Anatomy	3	0	3
SS-1091	Sociology	3	0	3
NS-1094	Quantative Reasoning-I	3	0	3
AH-1091	History of Art & Design	3	0	3
ENG-1096	Expository Writing-I	3	0	3
FA-1095	Drawing Foundation-I	0	2	2
	Total	**15**	**2**	**17**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
NS-1095	Human Ecology	3	0	3
SS-1092	Psychology	3	0	3
NS-1096	Quantative Reasoning-II	3	0	3
AH-1092	History of Art & Design-II	3	0	3
ENG-1097	Expository Writing-II	3	0	3
FA-1096	Drawing Foundation-II	0	2	2
	Total	**15**	**2**	**17**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
ENG-2091	Expository Writing-III	3	0	3
HU-2091	Islamic Studies	3	0	3
HU-2092	Pak Studies for Designers	3	0	3
DES-2091	Color & Design Fundamentals	1	2	3
FA-2098	Drawing Foundation-III	0	2	3
	Total	**10**	**4**	**14**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
DD-2091	CAD-I for Designers	1	2	3
VA-2091	Painting Studio	0	3	3
VA-2092	Miniature Studio	0	3	3
VA-2093	History of Visual Arts-I	3	0	3
FA-2091	Anatomy & Potrait Drawing	0	3	3
	Total	**4**	**11**	**15**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
VA-3091	Print Making Studio	0	3	3
VA-3092	Sculpture Studio	0	3	3
VA-3093	History of Visual Arts-II	3	0	3
VA-3094	Calligraphy	0	3	3
FA-3091	Advance Drawing-I	0	3	3
	Total	**3**	**12**	**15**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
VA-3095	Fine Arts Major	0	4	2
VA-3096	Digital Art & Design	0	3	3
VA-3097	Modern Art	2	0	3
FA-3092	Advance Drawing-II	0	3	3
RM-3091	Research Methodology	2	1	3
	Total	**4**	**11**	**15**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
DEC-4092	Technopronuership	1	2	3
VA-4091	Media Art	0	3	3
VA-4092	Contemporary Art	2	0	2
FA-4091	Advance Drawing-III	0	3	3
FP-4091	Final-Project-I	0	3	3
	Total	**3**	**11**	**14**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
VA-4093	Art Crticism	2	0	2
DES-4094	Design Ethics	3	0	3
DES-4091	Visual Story Telling	1	1	2
DES-4093	Digital Portfolio Development	0	2	2
FP-4092	Final Year Project-II	0	3	3
HU-4091	Foriegn Language	2	0	2
	Total	**8**	**6**	**14**

	Theory	Lab	Credit Hr.
Internship during summer holidays (DES-3091)	0	1	1
Total Credits for Bachelor of Fashion Design	62	60	122

Bachelor Of Animation And Multimedia Design

Program Objectives

1. The program aims to equip students with digital tools those can be used for developing both still and motion-based design projects.
2. To provide learning opportunities for the digital arts and design, in preparation for diverse professions in the world of animation and multimedia.

Program Outcomes

After completing AMMD students will:

1. Be creative and have good understanding of different relevant technical processes.
2. Acquire an ample level of competency in using a range of relevant software applications.
3. Have good visual communication skills, with the ability to respond to client's needs.
4. Able to create projects both in 2D & 3D animations.
5. Able to work in the film, TV, and video game industries.
6. Able to create content dynamic content for variety of digital and social media platforms.

BACHELOR OF ANIMATIOM & MULTIMEDIA DESIGN

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
NS-1093	Human Anatomy	3	0	3
SS-1091	Sociology	3	0	3
NS-1094	Quantative Reasoning-I	3	0	3
AH-1091	History of Art & Design	3	0	3
ENG-1096	Expository Writing-I	3	0	3
FA-1095	Drawing Foundation-I	0	2	2
	Total	**15**	**2**	**17**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
NS-1095	Human Ecology	3	0	3
SS-1092	Psychology	3	0	3
NS-1096	Quantative Reasoning-II	3	0	3
AH-1092	History of Art & Design-II	3	0	3
ENG-1097	Expository Writing-II	3	0	3
FA-1096	Drawing Foundation-II	0	2	2
	Total	**15**	**2**	**17**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
ENG-2091	Expository Writing-III	3	0	3
HU-2091	Islamic Studies	3	0	3
HU-2092	Pak Studies for Designers	3	0	3
DD-2091	CAD-I for Designers	1	2	3
FA-2098	Drawing Foundation-III	0	2	3
	Total	**10**	**4**	**14**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
AM-2091	Human & Computer Interaction	2	1	3
AM-2092	Basic Modeling & Animation	1	2	3
VA-2092	Digital Animation Principles & Techniques	1	2	3
VA-2093	Clothed Figure Drawing	0	2	2
DES-2091	Color & Design Fundamentals	1	2	3
	Total	**5**	**9**	**14**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
AM-3091	3D Modeling & Rendering	1	2	3
AM-3092	Pre-Production Techniques	1	2	3
AM-3093	Fundamentals of Texturing & Lighting	1	2	3
FA-3099	Sketching for Communication	0	2	2
DES-4091	Visual Story Telling	1	1	2
	Total	**4**	**9**	**13**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
AM-3094	Light & Sound Design	2	1	3
AM-3095	Introduction of Rigging & Animation	1	2	3
AM-3096	Web Designing	1	2	3
AM-3097	Power of Myths & Symbols	3	0	3
RM-3091	Research Methodology	2	1	3
	Total	**9**	**6**	**15**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
DEC-4092	Technopronuership	1	2	3
AM-4091	Production principles &Physical Theater	2	1	3
AM-4092	AdvanceRigging & Animation	1	2	3
AM-4093	App. & Interactivity Designing	1	2	3
FP-4091	Final-Project-I	0	3	3
	Total	**5**	**10**	**15**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
AM-4094	Post-Production Techniques	0	2	2
AM-4095	Multimedia Strategies & Social Impact	1	2	3
DES-4093	Digital Portfolio Development	0	2	2
DES-4094	Design Ethics	3	0	3
FP-4092	Final Year Project-II	0	3	3
HU-4091	Foriegn Language	2	0	2
	Total	**6**	**9**	**15**

	Theory	Lab	Credit Hr.
Internship during summer holidays (DES-3091)	0	1	1
Total Credits for Bachelor of Fashion Design	69	52	121

Bachelor of Interior Design (Evening Program)

Program Objectives

1. Comprehend design processes, identify problems, anticipate challenges, and envision solutions, in relation to the needs of contemporary trends, technologies, arts and fashion fields.
2. Create innovative and sustainable design solutions for design fields utilizing their hands-on experience of new technological & traditional arts and crafts
3. Develop strong communication and interpersonal skills to achieve professional success by practicing ethical behavior in the world of art and design

Program Outcomes

1. An ability to professionally apply knowledge of arts, fashion, and design.
2. An ability to identify, formulate, research, and analyze design problems reaching for substantiated conclusions using basic principles of design, natural sciences, and engineering sciences.
3. An ability to design solutions for design problems and components/ processes that meet specified needs with appropriate consideration for public use, safety, cultural, societal, and environmental considerations.
4. An ability to create, select, adapt, and apply appropriate techniques, resources, modern design and IT tools to complex design activities, with an understanding of the limitations.
5. Ability to understand the impact of professional design solutions in societal and environmental contexts and demonstrate knowledge of need for sustainable development.
6. An ability to understand common ethical problems faced by artists and designers and how to use ethical knowledge in decision making.
7. Ability to function effectively as an individual, a member or a leader in diverse teams and multidisciplinary settings.
8. An ability to develop effective interpersonal communication skills orally as well as in writing.
9. Ability to demonstrate management skills and apply design principles to one's own work, as a member and/or leader in a team, to manage projects and in a multidisciplinary environment.
10. An ability to recognize importance of life- long learning in the broader context of innovation and technological developments.

BACHELOR OF INTERIOR DESIGN

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
NS-1093	Human Anatomy	3	0	3
SS-1091	Sociology	3	0	3
NS-1094	Quantative Reasoning-I	3	0	3
AH-1091	History of Art & Design	3	0	3
ENG-1096	Expository Writing-I	3	0	3
FA-1095	Drawing Foundation-I	0	2	2
	Total	**15**	**2**	**17**

2nd Semester

Code	Course Title	Theory	Lab	Credit Hours
NS-1095	Human Ecology	3	0	3
SS-1092	Psychology	3	0	3
NS-1096	Quantative Reasoning-II	3	0	3
AH-1092	History of Art & Design-II	3	0	3
ENG-1097	Expository Writing-II	3	0	3
FA-1096	Drawing Foundation-II	0	2	2
	Total	**15**	**2**	**17**

3rd Semester

Code	Course Title	Theory	Lab	Credit Hours
ENG-2091	Expository Writing-III	3	0	3
HU-2091	Islamic Studies	3	0	3
HU-2092	Pak Studies for Designers	3	0	3
ID-2091	Interior Design Fundamentals	2	1	3
FA-2098	Drawing Foundation-III	0	2	3
	Total	**11**	**3**	**14**

4th Semester

Code	Course Title	Theory	Lab	Credit Hours
ID-2092	Interior Design Studio-I	1	2	3
DES-2091	Color & Design Fundamentals	1	2	3
ID-2093	Modeling Making & Architectural Renderings	1	2	3
ID-2094	Drawing For Product Design	0	2	2
ID-2095	2D Computer Drafting & Drawing	1	2	3
	Total	**4**	**10**	**14**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
AM-3091	3D Modeling & Rendering	0	3	3
ID-3091	History of Style, Decoration & Architecture	2	0	3
ID-3092	Construction Technology & Materials	2	1	3
ID-3093	Interior Design-II	0	3	3
AM-3093	Fundamentals of Texturing & Lighting	1	2	3
	Total	**5**	**9**	**14**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
ID-3094	Ergonomics & Furniture Design	1	2	3
ID-3095	Textile Materials & Interior Design	2	1	3
ID-3096	Advanced Professional Renderings	1	2	3
ID-3097	Current Issues in Interior Design	2	1	3
RM-3091	Research Methodology	2	1	3
	Total	**8**	**7**	**15**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
ID-4091	Plant Styling & Landscape Design	1	2	3
ID-4092	Material Testing & Functionality	2	1	3
ID-4093	Business & Marketing for Designers	2	1	3
ID-4094	Architectural Animation	0	2	2
FP-4091	Final-Project-I	0	3	3
	Total	**5**	**9**	**14**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
DES-4091	Visual Story Telling	1	1	2
DEC-4092	Technopronuership	1	2	3
DES-4093	Digital Portfolio Development	0	2	2
DES-4094	Design Ethics	3	0	3
FP-4092	Final Year Project-II	0	3	3
HU-4091	Foriegn Language	2	0	2
	Total	**7**	**8**	**15**

	Theory	Lab	Credit Hr.
Internship during summer holidays (DES-3091)	0	1	1
Total Credits for Bachelor of Fashion Design	70	51	121

FAISALABAD
BUSINESS SCHOOL

FAISALABAD BUSINESS SCHOOL

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

Faisalabad Business School (FBS) is a premier institute of Business studies endeavoring to train leaders of the future business world by inculcating managerial and leadership skills in them. We nurture our graduates with necessary skills to play their role of bringing national products to the world market and uplifting the national economy. Our challenges to compete with the regional countries are high, but our motivation and commitment to supersede them is higher. Keeping this in view, FBS offers three tailor-made 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 programs offered by FBS aim to produce individuals with excellent leadership skills with a blend of knowledge related to management, marketing, and textiles. Teaching faculty at FBS is fully committed to providing exciting, challenging, and rewarding experiences to students during their studies, and we 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. Therefore, our graduates have more job opportunities for securing good jobs as compared to other business schools in the region. All degree programs offered by FBS provide wide range of career opportunities for its graduates. BBA program prepares students to pursue their careers in the fields of marketing, finance, and human resource management. BS in Textile Management and Marketing (BSTMM) is a specialized program that prepares our graduates to work at different managerial levels in marketing, merchandizing and production planning departments in textile sector. Our graduates of BS Textile & Apparel Merchandizing (BSTAM) lead the fast-paced changing scenarios of today's apparel industry through intellect, innovation, and values. Success of our graduates speaks volumes about the quality of education at Faisalabad Business School.

Faculty Profile Faisalabad Business School

Dr. Sajjad Ahmad Baig

Associate Professor / Director FBS
PhD TQM (PU)
MS TQM (PU)
M. Sc Fibre Technology

Dr. Muhammad Hashim

Associate Professor /Chairman
Department of Business Administration.
PhD Management Science and Engineering (SCU, China)
MBA Banking & Finance (AIOU)

Dr. Muhammad Shahzad Iqbal

Assistant Professor / Program Director BBA
PhD Economics (GCUF)
M. Phil Economics (UK)
M. Sc (IIUI)

Dr. Syed Hussain Mustafa Gillani

Assistant Professor / Program Director BSTAM
PhD Management Sciences (NUML)
MBA (SZABIST)

Dr. Muhammad Rizwan Khan

Assistant Professor / Program Director BSQSCM
PhD Industrial Engineering (HYU, South Korea)

Dr. Muhammad Zia-ur-Rehman

Assistant Professor / Program Director MSBA
PhD Finance (IIUI)
MS Finance (IIUI)

Dr. Falik Shear

Assistant Professor / Program Director MBA
PhD Business Administration (Finance) NUST
M. Phil Business Administration (NUST)

Faculty Profile Faisalabad Business School

Liaquat Ali

Assistant Professor
MS Management Sciences (SUIT)

Dr. Muhammad Ahmad-ur-Rehman

Assistant Professor
PhD Marketing (UTM Malaysia)
MS Marketing (IIUI)
MBA Marketing (UCP)

Muhammad Farooq Jamal

Assistant Professor
M. Phil Marketing (SZABIST)
MBA Marketing & Finance (SZABIST)

Dr. Beenish Qamar

Assistant Professor
PhD Business Administration (GCUF)
MS Business Administration (GCUF)

Dr. Aima Sameen Anjum

Assistant Professor
PhD Materials Engineering (HYU, South Korea)

Dr. Zahid Hussain

Lecturer
PhD Managemant UTM, (Malaysia)
MBA Insurance & Risk Management PU, Lahore
LLB. PU, Lahore

Nasir Ali Saim

Lecturer
M. Phil Applied Linguistics (GCUF)
MA English (GCUF)

Mina Kharal

Lecturer
MS (Finance) UAF
MBA (Finance) UAF

Faculty Profile Faisalabad Business School

Nasir Ali

Lecturer
MS Finance (SZABIST)

Alishba Ahkam

Lecturer
MS Marketing
MBA Marketing (UAF)

Kiran Shahzadi

Lecturer
MS Marketing (NCBEA)
MBA Marketing (QAU, Islamabad)

Nazish Imtiaz

Lecturer
M. Phil in Leadership & Management Sciences

Mehwish Sultan

Lecturer
MS Marketing (NTU)

Nabeel Khalid

Lecturer
M. Sc International Strategic Marketing
(University of Bradford, UK)

Mansoor Ahmad

Lecturer
M. Phil Islamic Studies GIFT

Bachelor of Business Administration (BBA)

Program Educational Objectives (PEOs)

1. To develop the multidisciplinary skills while encompassing ethical considerations necessary for business analytics/decision making.
2. To develop the communication skills that persuasively and professionally articulate the thinking of graduates.
3. To develop the understanding of team dynamics in the graduates and articulate them to become effective team players and business leaders.

PROGRAM LEARNING OUTCOMES (PLOs)

No.	OUTCOMES
1	Understand and apply theoretical knowledge related to core business education to solve business problems.
2	Articulate oral and written proficiency in communication at workplace setting.
3	Organize and analyze data for effective decision-making to reach an appropriate and sustainable solution.
4	Analyze the common ethical problem faced by managers and use the ethical knowledge in decision-making.
5	Apply theoretical knowledge of leadership to achieve goals through teams at workplace.
6	Evaluate suitable business opportunities and create optimal business solutions using entrepreneurial knowledge.
7	Understand issues related to global business operations focusing on the Textile Sector of Pakistan.

Areas of Specialization for BBA

- Finance
- Marketing
- Human Resource Management

Specialization Courses for BBA Finance

1. Corporate Governance (FIN-I-4081)
2. Analysis of Financial Statements (FIN-I -4082)
3. Financial Markets and Institutions (FIN-I -4083)
4. Managerial Finance (FIN-I -4084)
5. Islamic Banking and Finance (FIN-I -4085)
6. Security Analysis (FIN-I -4086)
7. Case Studies in Finance / Seminar (FIN-I -4087)
8. International Finance (FIN-I-4088)
9. International Financial Management (FIN-I-4089)
10. Financial Risk Management (FIN- II-4081)
11. Corporate Finance (FIN-II-4082)
12. Islamic Financial Systems (FIN-II-4083)
13. Quantitative Techniques in Finance (FIN-II-4084)
14. Credit Risk Management and Lending (FIN-II-4085)
15. Current Topics in Finance (FIN-II-4086)
16. Behavioral Finance (FIN-II-4087)

Marketing

1. Retail Management (MKT-I-4082)
2. Brand Management (MKT-I-4083)
3. Sales Management (MKT-I-4085)
4. Advertising Management (MKT-I-4086)
5. Services Marketing (MKT-I-4087)
6. Promotion Management (MKT-I-4088)
7. Cyber Marketing (MKT-I-4089)
8. Export Marketing (MKT-II-4081)
9. International Marketing (MKT-II-4082)
10. Supply Chain Management (MKT-II-4083)
11. Integrated Marketing Communications (MKT-II-4084)
12. Social Media Marketing (MKT-II-4085)
13. Logistics Management (MKT-II-4086)

Human Resource Management

1. Staffing (HRM-I-4081)
2. Leadership and Motivation (HRM-I-4082)
3. Human Resource Development (HRM-I-4083)
4. Strategic Human Resource Management Policies (HRM-I-4084)
5. Training Intervention in Job Skills (HRM-I-4085)
6. Labour Law and Industrial Relations (HRM-I-4086)
7. Rural and Urban Dynamics (HRM-I-4087)
8. Micro Organizational Dynamics (HRM-I-4088)
9. Team Management (HRM-I-4089)
10. Interviewing Skills (HRM-II-4081)
11. Performance Management (HRM-II-4082)
12. Compensation Management (HRM-II-4083)

*List of specialization courses is updated every year. Specialization courses will be offered from the last approved list.

BACHELOR OF BUSINESS ADMINISTRATION

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
MGT-3083	Total Quality Management	3	0	3
ACCT-3083	Cost Accounting	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
FIN-3082	Financial Management	3	0	3
ECON-3083	Economy of Pakistan	3	0	3
HRM-3081	Introduction to Human Resource Management	3	0	3
BUS-3086	International Relations & Current Affairs	3	0	3
LAW-3081	Business Law	3	0	3
	Total	**15**	**0**	**15**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
BUS-4087	Business Ethics	3	0	3
MGT-4085	Entrepreneurship	3	0	3
MGT-4084	Operations Management	3	0	3
	Specialization I	3	0	3
	Specialization II	3	0	3
	Total	**15**	**0**	**15**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
MKT-4084	Export Marketing	3	0	3
MGT-4086	Strategic Management	3	0	3
	Specialization IV	3	0	3
	Specialization III	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 Bachelor of Business Administration	133		

***20 Hours Social Activity is Mandatory for the completion of Degree Program.**

BS in Textile Management and Marketing

Program Educational Objectives (PEOs)

1. To inculcate the exclusive communicative skills, interpersonal as well as managerial skills in the graduates who would be capable to work with diversified teams in a highly professional environment of the workplace.
2. To develop the practical as well as analytical skills in the graduates to evaluate and resolve all possible issues in the domains of management and marketing of textile sector.
3. To provide a conducive environment where graduates have the opportunity to learn the national and international issues regarding business ethics, environment and social norms, necessary for sustainable growth.
4. To provide learning opportunity to graduates to meet the present and future demands of textile sector.
5. To enhance business practicability of the graduates by developing entrepreneurial skills and managerial competencies in order to polish the skills of future business leaders.

BSTMM PROGRAM LEARNING OUTCOMES (PLOs)

No.	ATTRIBUTES	OUTCOMES
1	**Core Business Education**	An ability to understand and apply theoretical knowledge related to core business subjects to solve business problems.
2	**Textile Management and Marketing**	An ability to understand technical knowledge, working environment, managerial issues, and opportunities of Pakistan's Textile Industry to enable the students to contribute positively towards textile sector.
3	**Oral and Written Communication**	An ability to demonstrate effective oral and written communication in interpersonal transactions at workplace.
4	**Analytical Thinking and Decision-Making Skills**	An ability to organize and analyze data for effective decision making to reach an appropriate and sustainable solution.
5	**Ethical Considerations in Decision Making**	An ability to understand common ethical problem faced by managers and how to use ethical knowledge in decision making.
6	**Leadership**	An ability to understand and apply theoretical knowledge on leadership to achieve goals through coworkers in workplace settings.
7	**Fostering Entrepreneurial Spirits**	An ability to identify and seize a suitable business opportunity with understanding of key environmental factors.
8	**Global Perspective with Focus on Textile Industry**	An ability to understand issues related to global business operations with focus on Textile Sector.

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-2112	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		

Note: Scheme of Studies can be revised any time during the degree program after the approval of Competent Authority

***20 Hours Social Activity is Mandatory for the completion of Degree Program.**

BS Textile & Apparel Merchandizing (BSTAM)

Program Educational Objectives (PEOs)

1. Access, exhibit and apply basic knowledge of textile, apparel and merchandising to find out the solutions for the problems of the textile and apparel industry.
2. Achieve professional success by practicing ethical behavior, sustainability, and diversity with effective communication individually and in a team.
3. Adopt innovative approaches and pursue career growth undertaking professional trainings and/or studies in apparel/clothing and merchandising.

BSTAM PROGRAM LEARNING OUTCOMES (PLOs)

No.	ATTRIBUTES	OUTCOMES
1	**Knowledge**	Ability to apply knowledge of mathematics, social sciences, manufacturing fundamentals and business and economic studies to the solution of merchandising related problems.
2	**Solution design**	Ability to design and develop solutions for products, components or processes that meet specified needs of target market.
3	**Communication**	Ability to communicate and interface effectively with all stakeholders; sales & marketing and manufacturing etc. 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.
4	**Solution Application**	Ability to demonstrate knowledge and understanding of management principles and economic decision-making and apply these as an individual and team leader, to manage multidisciplinary environments in apparel global business.
5	**Use of ICT tools**	Ability to create, select and apply appropriate and modern IT tools, including prediction modeling, forecasting, and MIS/ERP to problems of clothing business.
6	**Ethics**	Ability to apply ethical principles and commit to professional ethics and responsibilities and norms of merchandising / businesses practices.
7	**Individual & Teamwork**	Ability to function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.
8	**Social Responsibility**	Ability to understand and evaluate societal, health, safety, legal and cultural issues in global and local businesses and community at large.
9	**Sustainability**	Ability to understand and evaluate the sustainability outcome of the business decisions on environment.

BS TEXTILE & APPAREL MERCHANDIZING

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
FA-1091	Basic Drawing-I	0	2	2
	Total	**15**	**2**	**17**

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
AM-2041	Introduction to Textiles & Clothing	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
AM-3041	Raw Materials for Clothing	2	1	3
AM-3042	Fabric Structures and Manufacturing	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
AM-3043	Textile & Apparel Testing	2	1	3
	Total	**16**	**2**	**18**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
AM-3044	Visiual Merchandising & Store Planning	3	0	3
AM-3045	Anthropometry and Garment Assembly	1	2	3
AM-3046	Apparel Quality Management	3	0	3
FIN-3082	Financial Management	3	0	3
AM-3047	Apparel Product Devlp. & Manufacturing	3	0	3
	Total	**13**	**2**	**15**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
AM-4041	Apparel Costing & Pricing	3	0	3
TE-4111	Environmental & Social Compliances in Textiles	3	0	3
HRM-3081	Introduction to Human Resource Management	3	0	3
MGT-4084	Operations Management	3	0	3
AM-4043	Senior Design Project-I	0	3	3
	Total	**12**	**3**	**15**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
MGT-4086	Strategic Management	3	0	3
BUS-4087	Business Ethics	3	0	3
AM-4042	Apparel Auditing	3	0	3
MGT-4085	Entrepreneurship	3	0	3
AM-4045	Senior Design Project-II	0	3	3
	Total	**12**	**3**	**15**

6-Week summer internship after sixth semester	0	1	1
Total Credits for BS Textile & Apparel Merchandizing	135		

***20 Hours Social Activity is Mandatory for the completion of Degree Program.**

BS Quality and Supply Chain Management

Program Educational Objectives (PEOs)

1. To demonstrate detailed knowledge and understanding of specialized areas pertaining to quality and supply chain functions.
2. To develop the skills in the graduates necessary to analyze business supply chain and retail management data/ problems and finding the appropriate solutions.
3. To develop communication, interpersonal, and managerial skills in the graduates to work in a highly professional environment at the workplace.
4. To enhance entrepreneurial and managerial skills of graduates for future business endeavors.

BSQ&SCM PROGRAM LEARNING OUTCOMES (PLOs)

No.	ATTRIBUTES	OUTCOMES
1	**Core Quality and Supply Chain Education**	An ability to enhance their professional and personal development through learning modern quality and supply chain techniques and their application in practice.
2	**Multi-disciplinary Knowledge**	An ability to apply knowledge of multi-disciplinary subjects in the field.
3	**Oral and Written Communication**	An ability to demonstrate effective oral and written communication in interpersonal transactions at workplace.
4	**Analytical Thinking and Decision-Making Skills**	An ability to organize and analyze data for effective decision-making to reach an appropriate and sustainable solution.
5	**Ethical Considerations in Decision Making**	An ability to understand common ethical problem faced by managers and how to use ethical knowledge in decision making.
6	**Fostering Entrepreneurial Spirits**	An ability to identify and seize a suitable business opportunity with understanding of key environmental factors.

BS QUALITY AND SUPPLY CHAIN MANAGEMENT

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	Microeconomics	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	Macroeconomics	3	0	3
BUS-2084	Business Communication	3	0	3
SCM-2081	Introduction to Supply Chain Management	3	0	3
BUS-2085	Business Research Methods	3	0	3
FIN-2081	Business Finance	3	0	3
HRM-3081	Fundamentals of Human Resource Management	3	0	3
	Total	**18**	**0**	**18**

5th Semester

Code	Course Title	Theory	Lab	Credit Hours
MGT-3083	Total Quality Management	3	0	3
SCM-3081	Business Analytics	3	0	3
QM-3081	Statistical Quality Control	3	0	3
MGT-4085	Entrepreneurship	3	0	3
SCM-3082	Cost Management for Supply Chain	3	0	3
	Total	**15**	**0**	**15**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
SCM-3083	Legal Aspects of Supply Chain Management	3	0	3
QM-3082	Integrated Management Systems & Standards	3	0	3
SCM-3084	Procurement & Contract Management	3	0	3
MGT-4084	Operations Management	3	0	3
QM-3083	Managing Project	3	0	3
	Total	**15**	**0**	**15**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
SCM-4081	Forecasting & Demand Management	2	0	2
QM-4081	Social Accountability Standards	3	0	3
SCM-4082	Retail Supply Chain Management	3	0	3
SCM-4083	Inventory & Warehouse Management	3	0	3
QM-4082	Lean Six Sigma	3	0	3
QSCM-4081	Final Year Project I	1	0	1
	Total	**15**	**0**	**15**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
SCM-4084	Simulation & Modeling	3	0	3
SCM-4085	Logistics Management	3	0	3
SCM-4086	Production Planning & Control	3	0	3
QM-4083	Energy & Sustainability Management	3	0	3
QSCM-4082	Final Year Project II	2	0	2
	Total	**14**	**0**	**14**

Internship after sixth semester (6-8 weeks)	0	1	1
Total Credit Hours of BS Q&SCM Program	132		

***20 Hours Social Activity is Mandatory for the completion of Degree Program.**

BS Accounting & Finance

Program Introduction:

The BS (Accounting & Finance) is a significantly specialised degree, preparing the graduates to have expertise in Accountancy and Finance. The students will acquire the knowledge and technical skills required in analysing accounting/finance and business problems, and they will use financial information to support business decisions. The degree offers specialization in Accounting and/or Finance. This degree will also prepare students for a rewarding career in any sector of the economy. The graduates may work as a Financial Accountant, Forensic Accountant, Management Accountant, Auditor, Chief Financial Officer, Financial Advisor and Tax Specialist.

Program Mission:

The mission of Bachelor of Science in Accounting and Finance (BSAF) is to strength students' academic level by enhancing required skillset while making them understand their Professional Responsibility and avail opportunities in the field of accounting and finance in the twenty-first century.

Program Educational Objectives (PEOs)

1. To demonstrate detailed knowledge and understanding of specialized areas pertaining to Accounting and Finance.
2. To develop the skills in the graduates necessary to analyse financial business problems and finding the appropriate solutions.
3. To develop communication, interpersonal, and managerial skills in the graduates to work in a highly professional environment at the workplace.
4. To enhance managerial skills of graduates in the domain of accounting and finance for future business endeavours.

BSAF PROGRAM LEARNING OUTCOMES (PLOs)

No.	ATTRIBUTES	OUTCOMES
1	**Core Business and Accounting Education**	An ability to understand and apply the components of the financial system and how it impacts upon financial decisions in an organization. And, the understanding of Legal and regulatory environment that commercial organizations and accounting professionals must work within.
2	**Oral and Written Communication**	An ability to demonstrate effective oral and written communication in interpersonal transactions at workplace at a level expected from the graduates of BS-Accounting & Finance degree.
3	**Analytical Thinking and Decision-Making Skills**	An ability to organize and analyse data for effective decision making to reach an appropriate and sustainable solution at a level expected from the graduates of BS-Accounting & Finance degree.
4	**Ethical Considerations in Decision Making**	An ability to understand common ethical problem faced by managers and how to use ethical knowledge in decision making.
5	**Leadership**	An ability to understand and apply theoretical knowledge on leadership to achieve goals through co-workers in workplace settings at a level expected from the graduates of BS-Accounting & Finance degree.
6	**Global Perspective with Focus on Textile Industry**	An ability to understand issues related to global business operations with focus on Textile Sector of Pakistan.

BS Accounting & Finance

1st Semester

Code	Course Title	Theory	Lab	Credit Hours
HU-1092	Islamic Studies/Ethics	3	0	3
MGT-1085	Fundamentals 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-1085	Principles 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
ACCT-2082	Financial Accounting	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-1081	Principles of Marketing	3	0	3
ACCT-2085	Corporate 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-2086	Business Communication & Report Writing	3	0	3
HRM-3081	Introduction to Human Resource Management	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
FIN-3086	Audit and Assurance	3	0	3
ACCT-3086	Fundamentals of Cost & Management Accounting	3	0	3
CS-3074	Management Information Systems	3	0	3
FIN-3082	Financial Management	3	0	3
HU-3096	Foreign Language	3	0	3
	Total	**15**	**0**	**15**

6th Semester

Code	Course Title	Theory	Lab	Credit Hours
FIN-3089	Investment Analysis	3	0	3
ACCT-3087	Business Taxation	3	0	3
QM-3083	Managing Project	3	0	3
FIN-I-4082	Analysis of Financial Statements	3	0	3
LAW-3084	Commercial Law	3	0	3
	Total	**15**	**0**	**15**

7th Semester

Code	Course Title	Theory	Lab	Credit Hours
BUS-4089	Corporate Governance & Ethics	3	0	3
FIN-I-4085	Islamic Banking and Finance	3	0	3
MGT-4084	Operations Management	3	0	3
ACCT-4081	Strategic Management Accounting	3	0	3
FIN-II-4089	Public Finance and Policy	3	0	3
	Total	**15**	**0**	**15**

8th Semester

Code	Course Title	Theory	Lab	Credit Hours
FIN-I-4089	International Financial Management	3	0	3
	Elective-I	3	0	3
	Elective-II	3	0	3
BUS-4088	Final Year Project	3	0	3
	Total	**12**	**0**	**12**

Internship after sixth semester (6-8 weeks)	0	1	1
Total Credit Hours of BS Q&SCM Program	130		

Electives List

ACCT-I-4081	Forensic Accounting
ACCT-I-4082	Environmental Accounting
FIN-III-4081	Personal Financial Planning
ACCT-I-4083	Auditing Information Technology
ACCT-I-4084	Tax Accounting
FIN-I-4087	Case Studies in Finance/ Seminar
FIN-II-4087	Behavioral Finance

How to Apply

Eligibility Criteria for Admission

School of Engineering and Technology

BS Textile Engineering (BSTE)

(Yarn Manufacturing, Weaving, Knitting, Textile Processing, Garments Manufacturing)

BS Polymer Engineering (BSPE)

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

a. F.Sc. (Pre-Engineering)/ ICS* (Physics, Mathemetics and Computer Studies)
b. Three A-Levels (Physics, Chemistry and Mathematics) and Eight O-Levels.
c. DAE (in the relevant field)
d. Associate Degree Program (Physics, Math)

Admission Criteria

Marks of F.Sc. (Pre-Engineering) Part-I	(50% weightage)
Entry Test Marks	(35% weightage)
Marks of Matriculation	(15% weightage)

BS Textile Engineering Technology (BSTET)
BS Garment Engineering Technology (BSGET)
BS Materials Engineering Technology (BSMET)

The applicants must have one of the following qualifications with overall score of at least 50%.

a. F.Sc. (Pre-Engineering) b. DAE (in the relevant field)
c. Three A-Levels (Physics, Chemistry and Mathematics) and Eight O-Levels.

Admission Criteria

Marks of F.Sc. (Pre-Engineering) Part-I	(70% weightage)
Entry Test Marks	(30% weightage)

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

Allocation of Seats for BS Textile Engineering

For Male Applicants	
All Pakistan Basis	14
Punjab	57
Sindh (Urban)	09
Sindh (Rural)	16
Khyber Pakhtunkhwa	14
Baluchistan	09
Islamabad Territory	03
FATA (Must apply through relevant Department)*	18
Tribal Area of DG Khan Rajanpur	01
District Azad Jammu and Kashmir	04
Disable Persons	01
Northern Area	03
Foreign Students	02
Total	151
For Female Applicants	
All Pakistan Basis	04
Punjab (Including Federal Areas)	09
Sindh (Urban)	01
Sindh (Rural)	02
Khyber Pakhtunkhwa	01
Baluchistan	01
FATA, NA, Azad Jammu and Kashmir	01
Total	19
Self Finance	30
Grand Total	200

*Candidates from FATA must apply through Home & TAs Department, Govt. of KPK.

Note:
Applicants who have studied in non-Pakistani systems (O-Level, A-Level etc.) must provide an equivalence certificate from Inter Board Committee of Chairmen IBCC other wise their merit will not be finalized.

School of Science

BS Computer Science (BSCE)
BS Software Engineering (BSSE)
BS Artificial Intelligence (BSAI)

Eligibility Criteria

Intermediate or equivalent with minimum 50% marks. (Must have Mathematics as elective subject) or (Pre-Medical as discipline)*

Admission Criteria

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

*** All such students must pass deficiency courses of Mathematics of 6 credit hours within one year of their regular studies.**

BS Applied Physics (Evening Program)

Eligibility Criteria

Intermediate or equivalent with Physics *(Pre-Medical with maximum 10% of total enrolment) securing at least 45% marks.

Admission Criteria

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

*** Pre-Medical students must pass deficiency courses of Mathematics of 6 credit hours within first year of their regular studies.**

BS Applied Statistics (Evening Program)

Eligibility Criteria

Intermediate or equivalent securing at least 45% marks.

Admission Criteria

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

***Students who have not studied mathematics at intermediate level must pass deficiency courses of Mathematics of 6 credit hours within first year of their regular studies.**

BS Applied Mathematics (Evening Program)

Eligibility Criteria

Intermediate with mathematics or equivalent (5% DAE of total enrollment) securing at least 45% marks.

Admission Criteria

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

BS Applied Chemistry (Evening Program)

Eligibility Criteria

Intermediate or equivalent with chemistry (Pre-Medical with maximum 10% of total enrollment) securing at least 45% marks.

Admission Criteria

Marks of Intermediate (Part-I) (60% weightage)

School of Arts & Design

Bachelor of Fashion Design
Bachelor of Textile Design
Bachelor of Visual Arts
Bachelor of Animation & Multimedia Design
Bachelor of Interior Design

Eligibility Criteria

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

Admission Criteria

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

Note: Passing University drawing test is compulsory.

Faisalabad Business School

Bachelor of Business Administration
BS Textile Management Marketing
BS Textile & Apparel Merchandizing
BS Quality and Supply Chain Management
BS Accounting & Finance

Eligibility Criteria

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

Admission Criteria

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

Eligibility Criteria with Seat Allocation

Programs	Duration	No. of Seats	Eligibility Criteria
BS Textile Engineering • Yarn Manufacturing • Weaving • Knitting • Textile Processing • Garment Manufacturing	4 Years	200	At least 60% marks in the following: a. F.Sc. (Pre-Engineering) b. Three A-Levels (Physics, Chemistry and Mathematics) and Eight O-Levels. ICS* (Physics, Mathemetics and Computer Studies) c. DAE (in the relevant field) d. Associate Degree Program (Physics, Math)
BS Polymer Engineering	4 Years	40	At least 50% marks in the following: a. F.Sc. (Pre-Engineering) b. Three A-Levels (Physics, Chemistry and Mathematics) and Eight O-Levels. c. DAE (in the relevant field)
BS Textile Engineering Technology	4 Years	90	
BS Garment Engineering Technology	4 Years	45	
BS Materials Engineering Technology	4 Years	45	
BS Software Engineering	4 Years	50	Intermediate or equivalent with minimum 50% marks. (Must have Mathematics as elective subject) or (Pre-Medical as discipline).
BS Computer Science	4 Years	50	
BS Artificial Intelligence	4 Years	50	
BS Textile & Apparel Merchandizing	4 Years	45	Intermediate (FA, F.Sc, I.Com, ICS, etc.) A-Levels or equivalent with minimum 45% marks.
BS in Textile Management & Marketing	4 Years	45	
Bachelor of Business Administration	4 Years	45	
BS Quality and Supply Chain Management	4 Years	45	
BS Accounting & Finance	4 Years	45	
Bachelor of Fashion Design	4 Years	45	Intermediate (FA, F.Sc, I.Com, ICS, etc.) A-Levels or equivalent with minimum 45% marks. Please note that passing the University Drawing Test is compulsory for Admission to Design Programs.
Bachelor of Textile Design	4 Years	45	
Bachelor of Visual Arts	4 Years	45	
Bachelor of Animation & Multimedia Design	4 Years	45	
Bachelor of Interior Design	4 Years	45	

Fee Structure for Undergraduate Programs

Programs	Total one time dues at admission (Rupees)	Tuition Fee per semester (Rupees)	Other Charges per semester (Rupees)	Total Dues of 1st semester (Rupees)
BS Textile Engineering	32,350	62,400	11,000	**105,750**
BS Polymer Engineering	32,350	62,400	11,000	**105,750**
BS Textile Engineering Technology	32,350	62,400	11,000	**105,750**
BS Garment Engineering Technology	32,350	62,400	11,000	**105,750**
BS Garment Materials Technology	32,350	62,400	11,000	**105,750**
BS Software Engineering	32,350	62,400	11,000	**105,750**
BS Computer Science	32,350	62,400	11,000	**105,750**
BS Artificial Intelligence	32,350	62,400	11,000	**105,750**
Bachelor in Business Administration	32,350	62,400	11,000	**105,750**
BS Textile Management & Marketing	32,350	62,400	11,000	**105,750**
BS Textile & Apparel Merchandizing	32,350	62,400	11,000	**105,750**
BS Quality & Supply Chain Management	32,350	62,400	11,000	**105,750**
BS Accounting & Finance	32,350	62,400	11,000	**105,750**
Bachelor of Textile Design	32,350	62,400	17,000	**111,750**
Bachelor of Fashion Design	32,350	62,400	17,000	**111,750**
Bachelor of Visual Arts	32,350	62,400	17,000	**111,750**
BS Animation & Multimedia Design	32,350	62,400	17,000	**111,750**
BS Interior Design	32,300	62,400	11,000	**111,750**
BS Applied Mathematics	32,300	32,480	11,000	**75,780**
BS Applied Physics	32,300	32,480	11,000	**75,780**
BS Applied Statistics	32,300	32,480	11,000	**75,780**
BS Applied Chemistry	32,300	32,480	11,000	**75,780**

Other Charges (Included in above mentioned 1st Semester Dues)	Rupees
Admission Fee (Once at the time of admission)	25,000
Certificate Verification Fee (Once at the time of admission)	2,000
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

Other Charges (Included in above mentioned 1st Semester Dues)	Rupees
Examination Fee (Per Semester)	3,000
Medical Fee (Per Semester)	2,000
Student Activity Fund (Per Semester)	2,000
Endowment Fund (Per Semester)	1,000
Exhibition Fee (Per Semester) (Only for Design Programs)	6,000
Degree Fee (Once in the last semester)	5,000

Hostel Dues	Rupees
Hostel Dues (1st Semester)	**30,000**
Hostel Dues (Per Semester)	**25,000**

(i) Tuition Fee will increase @ 2.5% Per Annum in Subsequent Years.
(ii) 1/3rd of the Tuition Fee along with Examination Fee will be charged in Summer/Extra Semester.
(iii) The Security Deposit is against breakage and/or any other damage caused by the students.
(iv) The Security Deposit is refundable within two year after the completion of degree or leaving the the University without completion or expulsion from the University. After Two years all the unclaimed securities will be forfeited.
(v) If any student fails to submit semester dues till sixth week from the commencement of semester then the student's admission will be cancelled. Student may sit in mid exam after the payment of re-admission fee of Rs.15,000/- along with semester dues.

Fee Structure for Self Finance

BS Textile Engineering

Particulars	1st Sem
Regular Fee	105,750
Self Finance Fee Installments	50,000
Total Fee Payable per Semester	**155,750**

BSPE, BSTET, BSGET, BSMET, BSCS, BSSE, BSAI

Particulars	1st Sem
Regular Fee	105,750
Self Finance Fee Installments	50,000
Total Fee Payable per Semester	**155,750**

BBA, BSTMM, BSTAM, BSQSEM, BSAF

Particulars	1st Sem
Regular Fee	105,750
Self Finance Fee Installments	37,500
Total Fee Payable per Semester	**143,250**

BFD, BTD, BVA, BAMD, BSID

Particulars	1st Sem
Regular Fee	111,750
Self Finance Fee Installments	43,750
Total Fee Payable per Semester	**155,500**

Note: Tuition Fee will increase @2.5% per annum in subsequent Years.

Admission on Self-Finance Basis

The University offers total 30 seats on Self-Finance basis in BS Textile Engineering and 05 Seats each in all other Programs on self-finance basis to the candidates having good academic record. However, the minimum eligibility criterion for the admission on Self-Finance is the same as prescribed for Open Merit. The other conditions and procedure to apply are as under:

1. All the male/female citizens of Pakistan irrespective of their domicile may apply for the admission on self-finance basis.

2. The candidates seeking admission against self finance seats will have to apply on separate application form.

3. The applicant apply online and print admission from alongwith bank deposit slip of Rs. 2,500/- and bank deposit slip of 1st semester self finance dues payable to National Textile University, Faisalabad.

4. The completed application form with required supporting documents as mentioned in the application form along with a bank receipt of following (Self-Finance Dues + Regular 1st Semester dues + I.T Advance) alongwith bank receipt of processing fee of Rs. 2,500/- should reach the Admission Office of the University on or before the notified closing date. If the interested candidates exceed from the total number of available self-finance seats then admission will be made strictly on merit If their merit does not fall in required top candidates then their dues will be refunded after deduction.

Foreign Applicants Eligibility Criteria

The eligibility requirements for the foreign applicants are the same as for the applicants from within Pakistan.

Entry Test Requirements

Candidate may appear in the following Entry Test:-

SAT-II (Physics & Math-IIC) (If candidate wants to appear in his home country).

Fee Structure

1000$ (One thousand US Dollar) or equal amount in Pakistani currency for each semester including hostel dues.

Application Submission Process

Application will be submitted by the candidate through his Ministry of Interior, in the Embassy of Pakistan, situated in the candidate's home country, which will forward the same in NTU Admission Office through Ministry of Interior, Government of Pakistan.

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. 25,000/-.

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%).

- 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.

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

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.

Credit Transfer Policy

I. A student who has been enrolled for a relevant Bachelor's Degree Program at some accredited institution by HEC & PEC/ foreign university in BS programs dully accredited by relevant accreditation bodies, and has earned 15 or more transferable credits with minimum CGPA of 2.5 on the scale of 4, may apply to NTU for admission with advance standing/ credit transfer before the start of fifth week of classes of particular semester.

II. A minimum of 65 credits including 6 credits of senior design project must by earned by the student at NTU to qualify for a Bachelor Degree

III. Credit of the courses passed with D or D+ grade cannot be transferable.

IV. Course description of passed course must match at least 80% with the courses offered in the University.

V. Migration/Transfer is allowed only in the cases of extreme hardship for the students or if it is considered in the best interest of the University by the competent authority on recommendation of credit transfer committee. The decision of the University is final and binding in this regard.

VI. Application form of Rs. 10,000/- (Non-refundable application processing fee) for the purpose can be obtained from the Admission Office.

VII. The migration/transfer of the local students would be allowed on the payment of Rs.200,000/- (Rupees two hundred thousand only) to the National Textile University; while foreigner students would be required to pay 1000$ (One thousand US Dollar) as admission fee in addition to regular fee. The nominees will be required to submit No Objection Certificate (NOC).

VIII. Acceptance of request for transfer will depend on availability of seats.

Main Exchange Lines:
(+92-41) 9230081-90, Fax: (+92-41) 9230098

University Management
Prof. Dr. Tanveer Hussain (Rector)
Tel: 041-9230099
Tel: 041-9230081-90, Ext: 102

Registrar
Salman Saif
Tel: 041-9230097, 9230081-90, Ext: 158

Controller of Examinations
Muhammad Zabihullah Khan
Tel: 041-9230093, 9230081-90, Ext: 249

Director Finance
Zulfikar Ahmad
Tel: 041-9230092, 9230081-90, Ext: 121

Advisor Students
Dr. Danish Mehmood Baitab
Tel: 041-9230078, 9230081-90, Ext: 220, 272

Chairman Department of Textile Engineering
Dr. Munir Ashraf
Tel: 041-9230081-90, Ext: 208

Chairman Department of Clothing
Dr. Abher Rasheed
Tel: 041-9230076, 9230081-90, Ext: 212

Chairman Department of Textile Technology
Dr. Sheraz Ahmad
Tel: 041-9230081-90, Ext: 108

Chairman Department of Materials
Dr. Khubaib Shakir
Tel: 041-9230081-90, Ext: 210

Chairman Department of Computer Science
Dr. Muhammad Asif Habib
Tel: 041-9230081-90, Ext: 140

Director School of Art & Design
Dr. Zafar Javed
Tel: 041-9230081-90, Ext: 230

Chairman Department of Applied Sciences
Dr. Nadeem Nasir
Tel: 041-9230081-90

Director Faisalabad Business School
Dr. Sajjad Ahmed Baig
Tel: 041-9230081-90, Ext: 264

While every effort has been made to ensure the accuracy of the information in the Prospectus, the University accepts no responsibility for any errors or omissions. The University reserves the right to amend, offer, delete or discontinue course (s) or amend admission requirements when ever it sees fit and prospective or registered students should as to the up to date position should they need to know. The University undertakes to take all reasonable steps to provide educational services in the manner set out in the prospectus and in other documents that will be issued to you if you are accepted as a student of the University. Should certain circumstances beyond the control of the University interfere with its ability to provide educational services; the University will take all reasonable steps to minimize the results disruption to educational services.

Designed By :

Muhammad Afzal

(Lecturer/Industrial Laison)

School of Arts & Design

FOR ADMISSION PLEASE CONTACT

ADMISSION OFFICE

NATIONAL TEXTILE UNIVERSITY

Sheikhupura Road, Faisalabad -37610

Tel: 041-9230081-90 Ext. 125,127 Fax: 041-9230098

admissions@ntu.edu.pk www.ntu.edu.pk

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