

**FAREAST INTERNATIONAL
UNIVERSITY**

**DEPARTMENT OF TEXTILE
ENGINEERING**

Syllabus for: B.Sc. in Textile Engineering

CURRICULUM

INTRODUCTION

Department of Textile Engineering of Fareast International University offers B.Sc. in Textile Engineering which is a four-year bachelor course designed to provide students with a sound foundation in the technology and managerial aspects of Textile manufacturing. To acquire B.Sc. degree, a student has to earn 156 credit hours from a combination of course offered by the university. The large and expanding textile and apparel industry in Bangladesh has been placing an increasing demand of highly skilled manpower with technological and managerial background. There are demands for textile graduates in other areas of economic activities. After the successful completion of this program a student will be professionally competent to choose his/her career as Textile Engineer, Quality Assurance Manager, Sample Room Manager, Supply Chain Manager, Industrial Engineer, Merchandiser, Production Manager, Factory Manager, Compliance Manager in the primary Textile and Ready Made Garments sector at home and abroad.

DEGREE REQUIREMENT:

To earn a B.Sc. in Textile Engineering degree, a student must complete 156 credit hours with CGPA 2.50. The following is a description of how these credit hours are distributed among the courses.

GRADING SYSTEM:

A student may earn the following letter grades: A+, A, A-, B+, B, B-, C+, C, D, and F depending on his/her performance in the course. However, grade 'F' is the failing grade. The numerical equivalent of the grades along with meaning for each grade is given in the tabular form below:

Numerical Grade	Letter Grade	Grade Point
80% and above	A+	4.0
75% to less than 80%	A	3.75
70% to less than 75%	A-	3.5
65% to less than 70%	B+	3.25
60% to less than 65%	B	3.0
55% to less than 60%	B-	2.75
50% to less than 55%	C+	2.5
45% to less than 50%	C	2.25
40% to less than 45%	D	2.0
Less than 40%	F	0.0
	F* Failure I** Incomplete W*** Withdrawal R**** Repeat Y***** Audit	

F* "F" means failure. Credits for courses with this grade do not apply towards graduation and needs to repeat for improvement.

I** An "I" grade is given to students who have fulfilled the majority of the course requirements but have been unable to complete the rest. The student is not required to register for the course in the next semester.

W*** "W" means withdrawal. A student may decide to withdraw from a course by the deadline with the consent of the instructor and the Academic Advisor.

R**** "R" means repeat. If a student fails to earn minimum grade point of 2 in a course he or she has to retake the course(s) in the following 2 consecutive semesters. After repetition, improvement if any, will be calculated towards GP A or CGP A.

Y***** "Y" means audit. An existing student or ex-student may decide to audit a course of his/her interest for improvement of his knowledge for the particular course. In this case, the student pays the full tuition fee for the course, attends the classes, but is not required to sit for the exams and no Credits is earned.

COURSE WAIVER:

Considering some of the course content/outline courses under taken during the previous degree/diploma the grade point of waiver shall not exceed of the total credit hour 156.

TRANSFER OF CREDIT HOURS

For transferring the credit hours for a student desires to take admission in the department the maximum limit of credit hours considered shall be less than fifty percent of the whole (156 credits). In this case the transferred subjects and grades should be considered after the approval of the advisor and the Equivalent committee.

BASIC STRUCTURE:

The total credit requirement for the degree of Bachelor of Science in Textile Engineering (B.Sc in Textile Engineering) is 156 credits. A regular student should take about 12 credits per semester. Depending on the student's academic standing and the advisor's recommendation a student may take maximum 15 credits and minimum 9 credits for any semester. Considering the even distribution of the credits the length of study for the degree in Bachelor of Science in Textile Engineering (B.Sc in Textile Engineering) is recommended to be 4 years (12 semesters). However if any student fails to earn 156 credits in 4 years, he/she might be allowed up to 7 years to complete the degree. If any student again fails to complete in 7 years he/she may apply to the Academic council for special permission.

DISTRIBUTION OF COURSES (TABLE-1):

The B.Sc. in Textile Engineering program in the department of Textile Engineering consists of 46 courses carrying 156 Credits Hours. The following table shows typical credits for theory and laboratory courses.

Courses	Credit Hours
Theoretical	125
Practical	23
Viva / Seminar	2
Industrial Attachment	3
Project Work	3
Total	156

COURSE CONTENT

1st Year 1st Semester THEORETICAL COURSES

	Course Title	Credit	Contact hr/week
	Mathematics- I	3.0	3
	Chemistry - I	3.0	3
	Basic English	3.0	3
	Physics- I	3.0	3
	Sub total	12.0	12

PRACTICAL COURSES

	Course Title	Credit	Contact hr/week
	Chemistry- I (Lab)	1.0	3
	Physics- I (Lab)	1.0	3
	Sub total	2.0	6
	Total	14.0	18

1st Year 2nd Semester THEORETICAL COURSES

	Course Title	Credit	Contact hr/week
	Computer Fundamentals	2.0	3
	Statistics	3.0	3
	Chemistry- II	3.0	3
	Introduction to Textiles	2.0	3
	Sub total	10.0	12

PRACTICAL COURSES

	Course Title	Credit	Contact hr/week
	Chemistry- II (Lab)	1.0	3
	Engineering Drawing (Lab)	1.0	3
	Sub total	2.0	6
	Total	12.0	18

1st Year 3rd Semester THEORETICAL COURSES

	Course Title	Credit	Contact hr/week
	Bangladesh Studies	2.0	3
	Mathematics- II	3.0	3
	Engineering Materials	3.0	3
	Physics- II	3.0	3
	Sub total	11.0	12

PRACTICAL COURSES

	Course Title	Credit	Contact hr/week
	Physics- II (Lab)	1.0	3
	Workshop Practice (Lab)	1.0	3
	Sub total	2.0	6
	Total	13.0	18

2nd Year 4th Semester**THEORETICAL COURSES**

	Course Title	Credits	Contact hr/week
	Business & Communicative English	3.0	3
	Engineering Economics	3.0	3
	Textile Raw Materials-I	3.0	3
	Elements of Electrical & Electronics Engineering	3.0	3
	Sub total	12.0	12

PRACTICAL COURSES

	Course Title	Credit	Contact hr/week
	Elements of Electrical & Electronics Engineering (Lab)	1.0	3
	Sub total	1.0	3
	Total	13.0	18

2nd Year 5th Semester**THEORETICAL COURSES**

	Course Title	Credits	Contact hr/week
	Polymer Science & Engineering	2.0	3
	Textile Raw Materials – II	3.0	3
	Yarn Manufacturing - I	3.0	3
	Fabric Manufacturing - I	3.0	3
	Sub total	11.0	12

PRACTICAL COURSES

	Course Title	Credit	Contact hr/week
	Yarn Manufacturing - I (Lab)	1.0	3
	Fabric Manufacturing - I (Lab)	1.0	3
	Sub total	2.0	6
	Total	13.0	18

**2nd Year 6th Semester
THEORETICAL COURSES**

	Course Title	Credits	Contact hr/week
	Environment & Pollution Control	2.0	3
	Wet Processing – I	3.0	3
	Apparel Manufacturing- I	3.0	3
	Introduction to Microprocessor, Robotics & Control	3.0	3
	Sub total	11.0	12

PRACTICAL COURSES

	Course Title	Credit	Contact hr/week
	Wet Processing – I (Lab)	1.0	3
	Apparel Manufacturing – I (Lab)	1.0	3
	Sub total	2.0	6
	Total	13.0	18

**3rd Year 7th Semester
THEORETICAL COURSES**

	Course Title	Credits	Contact hr/week
	Textile Physics- I	2.0	3
	Yarn Manufacturing - II	3.0	3
	Fabric Manufacturing - II	3.0	3
	Textile Testing & Quality Control- I	2.0	3
	Sub total	10.0	12

PRACTICAL COURSES

	Course Title	Credit	Contact hr/week
	Yarn Manufacturing - II	1.0	3
	Fabric Manufacturing - II	1.0	3
	Textile Testing & Quality Control- I	1.0	3
	Sub total	3.0	9
	Total	13.0	21

**3rd Year 8th Semester
THEORETICAL COURSES**

	Course Title	Credits	Contact hr/week
	Wet Processing - II	3.0	3
	Apparel Manufacturing - II	3.0	3
	Textile Physics - II	2.0	3
	Textile Testing & Quality Control- II	2.0	3
	Sub total	10.0	12

PRACTICAL COURSES

	Course Title	Credit	Contact hr/week
	Wet Processing – II (Lab)	1.0	3
	Apparel Manufacturing – II (Lab)	1.0	3
	Textile Testing & Quality Control- II (Lab)	1.0	3
	Sub total	3.0	9
	Total	13.0	21

**3rd Year 9th Semester
THEORETICAL COURSES**

	Course Title	Credits	Contact hr/w
	Accounting & Cost Management	3.0	3
	Fabric Structure & Design	3.0	3
	Mechanical Engineering	2.0	3
	Elements of Machine Design	3.0	3
	Industrial Psychology	2.0	3
	Sub total	13.0	15

PRACTICAL COURSES

	Course Title	Credit	Contact hr/week
	Fabric Structure & Design (Lab)	1.0	3
	Mechanical Engineering (Lab)	1.0	3
	Sub total	2.0	6
	Total	15.0	21

**4th Year 10th Semester
THEORETICAL COURSES**

	Course Title	Credits	Contact hr/w
	Yarn /Fabric/Wet/Apparel Manufacturing – III (Optional)	3.0	3
	Production Planning & Control	3.0	3
	Industrial Management	3.0	3
	Maintenance of Textile Machinery of Yarn/Fabric/Wet/Apparel (Optional)	2.0	3
	International Trade	2.0	3
	Sub total	13.0	15

PRACTICAL COURSES

	Course Title	Credit	Contact hr/week
	Yarn/ Fabric/ Wet/ Apparel Manufacturing - III (Optional, Lab)	1.0	3
	Maintenance of Textile Machinery of Yarn/Fabric/Wet/Apparel (Optional, Lab)	1.0	3
	Sub total	2.0	6
	TOTAL	15.0	21

**4th Year 11th
Semester
THEORETICAL
COURSES**

	Course Title	Credits	Contact hr/week
	Yarn /Fabric/Wet/Apparel Manufacturing - IV (Optional)	3.0	3
	Special Yarn/Fabric/Wet/Apparel (Optional)	3.0	3
	Apparel Merchandising & Business	3.0	3
	Application of Computer in Textiles	3.0	3
	Sub total	12.0	12

**PRACTICAL
COURSES**

	Course Title	Credit	Contact hr/week
	Yarn/Fabric/Wet/Apparel Manufacturing - IV Lab (Optional, Lab)	1.0	3
	Application of Computer in Textiles (Lab)	1.0	3
	Sub total	2.0	6
	TOTAL	14.0	18

**4th Year 12th
Semester
PRACTICAL
COURSES**

	Course Title	Credits	Contact hr/week	Remarks
	Industrial Attachment	3.0	8 weeks	Two Months at Industry
	Comprehensive Viva	2.0	-	Viva on full course
	Project Work	3.0	6	
	Total	8.0	6.0	

TOTAL 156 CREDITS