



Faculty of  
Engineering

# Course Specifications : Textile Materials

A Ifarabi for Quality Assurance and Accreditation System - at 29/1/2012 12:50 PM

**University :** Mansoura University

**Faculty :** Faculty of Engineering

**Department :** Weaving and Textile

## 1- Course Data

Course Code : TXE6114 Course Title : Textile Materials Study Year : أولى غزل ونسيج

Specialization : Textile Engineering

Teaching Hours:

Lecture : 4

Tutorial : 2

Practical : Total : 6.0 (hour/week)

## 2- Course Aim

For students undertaking this course, the aims are to:

2.1- Professionally design and operate different processing systems in the textile industries and plan the related activities of maintenance, modernization and replacement.

2.2- Plan and manage the quality assurance activities in addition to insuring the protection of the production facility environment internally and externally.

## 3- Intended Learning Outcomes of Course (ILOS)

### a- Knowledge and Understanding

On completing this course, students will be able to:

- a- 1- Methodologies of solving engineering problems, data collection and interpretation
- a- 2- Properties of the textile materials

### b- Intellectual Skills

At the end of this course, the students will be able to:

- b- 1- Select appropriate mathematical and computer-based methods for modeling and analyzing problems.

### c- Professional Skills

On completing this course, the students are expected to be able to:

- c- 1- Perform experiments in the special textile laboratories, record & analyze data, and write technical reports.
- c- 2- Plan and design production processes necessary for different textile products.

### d- General Skills

At the end of this course, the students will be able to:

- d- 1- Collaborate effectively within multidisciplinary team
- d- 2- Search for information and adopt life-long self learning

## 4- Course Contents

No.	Topics
1	An Introduction to Textile Raw Materials and Its Importance
2	Identification of Fibers In Textiles by lab tests (microscope - chemical solubility - melting, ... etc.)
3	Classification of textile fibers
4	The basic stages of spinning, weaving, knitted and non-woven
5	Physical and mechanical Properties of Textile Raw Materials
6	Special fibers and its characteristics
7	Micro fibres
8	Nano fibres

## 5- Teaching and Learning Methods

5.1- Lectures

- 5.2- Tutorials
- 5.3- Practicals
- 5.4- Reports

## 6- Teaching and Learning Methods of Disables

- 6.1- None

## 7- Student Assessment

### a- Student Assessment Methods

1	Oral Examination to assess a1, d1
2	Practical Examination and reports to assess a2, b1, c1, d2
3	Mid-Term Exam to assess a1, a2, b1, c2
4	Final Exam to assess a1, a2, b1, c1, c2

### b- Assessment Schedule

No.	Assessment	Week
1	Oral Examination	13th week
2	Practical Examination and reports	at the end
3	Mid-Term Exam	at the end
4	Final Exam	every week

### c- Weighting of Assessments

Assessment	Weight
Mid Term Examination	15 %
Final Term Examination	70 %
Oral Examination	10 %
Practical Examination	5 %
Semester work	0 %
Other types of assessment	0 %
Total	100 %

## 8- List of References

### a- Books

- 1- Textile Raw materials ; El-Hadidy : Sources , Structure , Properties ,
- 2- Morton , W.E .et .al : Physical Properties of Textile Fibres , The Textile Institute , London , 1962-1975.
- 3- Pajgrt, O.et.al : Processing of Polyester Fibres , Elsevier , New york , 1979
- 4- Goni, E.P.G.,et al: Textile Science – An Explanation of Fibre Properties , Australia , 1983.
- 5- Pajgrt, O.et.al : Processing of Polypropylene Fibres , SNTL, CSR,1977
- 6- Militky , J.et.al : Modified Polyester Fibres , , Elsevier , New york ,1991
- 7- Textile Research Journal.
- 8- Journal of Textile Institute

## 9- Matrix of Knowledge and Skills

No.	Topics	week	Knowledge	Intellectual Skills	Professional Skills	General and Transferable Skills
1	An Introduction to Textile Raw Materials and Its Importance	1,2	a2	b1	c1	d1
2	Identification of Fibers In Textiles by lab tests (microscope - chemical solubility - melting, ... etc.)	3,4	a2	b1	c1	d1
3	Classification of textile fibers	5,6	a2	b1	c1	d1

4	The basic stages of spinning, weaving, knitted and non-woven	7,8	a1,a2	b1	c2	d2
5	Physical and mechanical Properties of Textile Raw Materials	9,10	a1,a2	b1	c2	d2
6	Special fibers and its characteristics	11,12	a1,a2	b1	c2	d2
7	Micro fibres	13	a1,a2	b1	c2	d2
8	Nano fibres	14	a1,a2	b1	c2	d1,d2

- Course Coordinator : أ.د. عادل محمد على الحديدي

- Head of Department : أ.د. فوقية فهيم اسماعيل الحبيبي