



Faculty of
Engineering

Course Specifications : Computer Applications in Textiles.2

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University : Mansoura University

Faculty : Faculty of Engineering

Department : Weaving and Textile

1- Course Data

Course Code : TXE 6215 Course Title : Computer Applications in Textiles.2 Study Year : ثمانية غزل ونسيج

Specialization : Textile Engineering

Teaching Hours:

Lecture : 2

Tutorial : 2

Practical : Total : 4.0 (hour/week)

2- Course Aim

For students undertaking this course, the aims are to:

- 2.1- (3) Exploit the techniques, skills and up-to-date engineering tools, necessary for engineering practice
- 2.2- (10) Communicate effectively

3- Intended Learning Outcomes of Course (ILOS)

a- Knowledge and Understanding

On completing this course, students will be able to:

- a- 2) Basics of information and communication technology (ICT)
- a- 3) Principles of design including elements design, process and/or a system related to specific disciplines.
- a- 16) Role of information technology and its application in textile industry.

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.
- b- 2) Design and/or create a process, component or system applying appropriate knowledge and principles
- b- 11) Select and appraise appropriate ICT tools to a variety of engineering problems

c- Professional Skills

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

- c- 2) Employ computational facilities, measuring instruments, workshops and laboratories equipment to design experiments and collect, analyze and interpret results.
- c- 15) Effectively use computer and software for design and processing operations

d- General Skills

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

- d- 3) Communicate effectively
- d- 4) Demonstrate efficient IT capabilities

4- Course Contents

No.	Topics
1	Revision and introduction.
2	Entering data and plotting figures using Excel
3	Using Excel to run some simple statistical problems
4	Using Excel to run Analysis of Variance (ANOVA) and apply it on some practical example in textile testing
5	Programming with MatLab, Constant/variables, input/output
6	Condition statements
7	Loop statements
8	Arrays
9	Functions
10	Plot and manipulate figures
11	Analyzing and coding applied problems

5- Teaching and Learning Methods

- 5.1- Lectures
5.2- Computer lab work

6- Teaching and Learning Methods of Disables

- 6.1- no

7- Student Assessment

a- Student Assessment Methods

1	Mid Term Examination	to assess	a2, a3, b1, b2
2	Final Term Examination	to assess	a2, a3, a18, b1, b2, b11
3	Oral Examination	to assess	a2, a3
4	Practical Examination	to assess	b2, b11, c2, c15
5	Semester work	to assess	a2, a3, a18, b1, b2, b11, c2, c15, d3, d4

b- Assessment Schedule

No.	Assessment	Week
1	Mid Term Examination	7
2	Final Term Examination	Final
3	Oral Examination	14
4	Practical Examination	7, 14
5	Semester work	All

c- Weighting of Assessments

Assessment	Weight
Mid Term Examination	5 %
Final Term Examination	60 %
Oral Examination	20 %
Practical Examination	10 %
Semester work	5 %
Other types of assessment	0 %
Total	100 %

8- List of References

a- Course Notes

- 1- matlab primer (<http://physis.gac.edu/~huber/matlab/matlab.ps>)
2- Numerical computing with matlab, the mathworks, Cleve Molar, copyright 2004

b- Recommended Books

- 1- <http://www.mathworks.com>

9- Matrix of Knowledge and Skills

No.	Topics	week	Knowledge	Intellectual Skills	Professional Skills	General and Transferable Skills
1	Revision and introduction.	1	a2			
2	Entering data and plotting figures using Excel	2	a2, a3	b1	c2	d3
3	Using Excel to run some simple statistical problems	3	a3, a16	b1, b2	c2	d3
4	Using Excel to run Analysis of Variance (ANOVA) and apply it on some practical example in textile testing	4	a3, a16	b1, b2, b11	c2, c15	d3, d4
5	Programming with MatLab, Constant/variables,	5	a2, a3	b1	c2	d3

	input/output					
6	Condition statements	6	a2, a3	b2	c2	d3, d4
7	Loop statements	7	a2, a3	b2	c2	d3, d4
8	Arrays	8-9	a2, a3	b2	c2, c15	d3, d4
9	Functions	10-11	a2, a3	b2	c2, c15	d3, d4
10	Plot and manipulate figures	12	a2, a3	b2	c2, c15	d3, d4
11	Analyzing and coding applied problems	13-14	a16	b2, b11	c2, c15	d3, d4

- **Course Coordinator :** د. إبراهيم حسن إبراهيم شادي
- **Head of Department :** أ.د. فوفية فهم اسماعيل الحبيبي