

Course Specifications (2011 - 2012)

A. Basic Information

Total Quality Management

Course Title	Quality Engineering			Course Code:	CVS 415		
Lecture:		Tutorial:		Practical	0	Total	0
Programme (s) on which this course is given:	B.Sc. Civil Engineering (Structures)						
Major or minor element of program:	Major						
Department offering the program:	Civil Engineering						
Department offering the course:	Civil Engineering						
Academic Year of program:	Fourth	Level of program:	First Semester				
Date of specifications approval:	16/3/2010						

B. Professional Information

1. Overall aims of course

By the end of the course the students will be able to:

The student should be able to acquire all skills of Total Quality Management and ISO

2. Intended Learning outcomes of Course (ILOs)

a. Knowledge and Understanding:

- a.5) Recognize methodologies of solving engineering problems, data collection interpretation.
- a.6) define quality assurance systems, codes of practice and standards, health and safety requirements and environmental
- a.7) Name business and management principles relevant to engineering.
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b. Intellectual Skills

- b.16) Define, plan, conduct and report management techniques.

b.17) Assess and evaluate different techniques and strategies for solving engineering problems.
b.3) Think in a creative and innovative way in problem solving and design.

c. Professional and Practical Skills

c.2) Professionally merge the engineering knowledge, understanding, and feedback to improve design, product and/or services.
c.9) Demonstrate basic organizational and project management skills.
c.11) Exchange knowledge and skills with engineering community and industry.

d. General and Transferable Skills

d.1) Collaborate effectively within multidisciplinary team.
d.3) Communicate effectively.
d.5) Lead and motivate individuals.

3. Contents

Week #	Topics	No. of Hours	ILOS	Teaching / learning methods and	Assessment method
1	Introduction To Total Quality Management	4	a5	Lectures	Assignments
			b17	Class activity	Quiz
			c2	Case study	
			d1		

2	Principals Of Development of a Quality Council	4	a5	Lectures	Assignments
			b17	Class activity	Quiz
			c2	Case study	
			d1		
3	Vision Statement, Mission Statement and Ethics	4	a5	Lectures	Assignments
			b17	Class activity	Quiz
			c2	Case study	
			d1		
4	Customer Perception of Quality and Herzberg theory	4	a6	Lectures	Assignments
			b16	Class activity	Quiz
			c9	Case study	
			d3		
5	Employee Involvement and Role	4	a6	Lectures	Assignments
			b16	Class activity	Quiz
			c9	Case study	
			d3		
6	Types of Teams and Problems involved in team work	4	a6	Lectures	Assignments
			b16	Class activity	Quiz
			c9	Case study	
			d3		
7	Definition of a process	4	a5	Lectures	Assignments
			b17	Class activity	Quiz
			c2	Case study	
			d1		
8	Midterm Exam				
9	Types of process Problems	4	a6	Lectures	Assignments
			b16	Class activity	Quiz
			c9	Case study	
			d3		
			a5	Lectures	Assignments

10	Improvement Strategies of a Process	4	b17	Class activity	Quiz
			c2	Case study	
			d1		
11	Supplier Selection and certification	4	a7	Lectures	Assignments
			b3	Class activity	Quiz
			c11	Case study	
			d5		
12	Statistical Process Control(SPC)	4	a7	Lectures	Assignments
			b3	Class activity	Quiz
			c11	Case study	
			d5		
13	Statistical Process Control(SPC)	4	a7	Lectures	Assignments
			b3	Class activity	Quiz
			c11	Case study	
			d5		
14	ISO	4	a7	Lectures	Assignments
			b3	Class activity	Quiz
			c11	Case study	
			d5		
15	Final Exam	3	a7		
			b3		
			c11		
			d5		
Total		55			

4- Teaching and Learning Methods:

Check using the symbol

<input checked="" type="checkbox"/>	Lectures
<input type="checkbox"/>	Practical training / laboratory
<input type="checkbox"/>	Seminar / workshop
<input checked="" type="checkbox"/>	Class activity
<input checked="" type="checkbox"/>	Case study
<input type="checkbox"/>	Project work
<input checked="" type="checkbox"/>	Tutorial

	Computer based work
	Other :

5- Student Assessment Methods:

Check using the symbol \checkmark

\checkmark	Assignments	to assess
\checkmark	Quiz	to assess
\checkmark	Mid-term exam	to assess
	Oral exam	to assess
\checkmark	Final exam	to assess
	Design Project	to assess
	Report	to assess
	Experimental write up	to assess
	Informally assessment	to assess
	Other	to assess

a5,a6,a7	b3,b16,b17	c2,c9,c11	d1,d3,d5
a5,a6,a7	b3,b16,b17	c2,c9,c11	d1,d3,d5
a5,a6,a7	b3,b16,b17	c2,c9,c11	d1,d3,d5
a5,a6,a7	b3,b16,b17	c2,c9,c11	d1,d3,d5

6. Assessment schedule

- Assessment 1 Assignments on weeks
- Assessment 2 Quizzes on weeks
- Assessment 3 Mid-term exam on week
- Assessment 4 Oral Exam on week
- Assessment 5 Final exam on week
- Assessment 6 Design Project on weeks
- Assessment 7 Report on weeks
- Assessment 8 Experimental write up on weeks
- Assessment 9 Informally assessment

8
15

7. Weighting of Assessments

Assignments	5%
Quiz	5%
Mid-term exam	20%
Oral exam	
Final exam	70%
Design Project	
Report	
Experimental write up	
Informally assessment	
Other	

Total

100%

8. List of References

8.1 Course Notes

Hand outs from lecturer

8.2 Essential Books (Text Books)

TQM Science

Micro Management Science

8.3 Recommended Books

8.4 Periodicals Web sites, etc

9. Facilities Required for Teaching and learning

Course Coordinator:

Associate Prof. Amr Ali Gamal AIDin Mohamed

Course instructor:

Associate Prof. Amr Ali Gamal AIDin Mohamed

Head of department:

Prof. Ahmed AdbulFattah Mahmoud Ahmed

Signature:

Date:

D	M	Y
6	1	2011