



Course Specification

Course Name:[Information Engineering]

Course Code:[IT454]

I. Basic Course Information

Major or minor element of program:[Major]

Department offering the course:[Information Technology]

Academic level:[400 Level]

Semester in which course is offered:[First (fall) Semester]

Course pre-requisite(s): [Computer Networks-2 [IT322]]

Credit Hours:3

Contact Hours Through:

Lecture	Tutorial*	Practical*	Total
2.5	0.0	1.5	4.0

* 1.5 hours for **either** Tutorial or Practical

Approval date of course specification: September 2014

II. Overall Aims of Course

[This course focuses on the principles and fundamentals of Information Technology (IT) project management. It provides students with fundamental knowledge of IT project life cycle and IT project phases. It helps them recognize and identify different IT project management process groups; including IT project scope management, IT project time management, IT project cost management, and IT project quality management.]

III. Program ILOs covered by course

Program Intended Learning Outcomes (By Code)			
Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
[K1,K14,K16,K23]	[I2,I14,I17]	[P9,P15,P18,P20]	[G2,G5]



Course Specification

IV. Intended Learning Outcomes of Course (ILOs)

a. Knowledge and Understanding

On completing the course, students should be able to:

- K.1 Identify the fundamental principles of project management and recognize key elements of the project management framework development.
- K.2 Explain the IT project life cycle and describe the five project management process groups.
- K.3 Interpret data and criteria affecting the overall strategic planning process, and apply different project selection methods.
- K.4 Express with demonstration an understanding of the fundamental concepts of project quality management and describe the tools and techniques for quality control, such as Pareto analysis, statistical sampling, Six Sigma, quality control charts, and testing.
- K.5 Identify key challenges incorporated into the scope definition process and describe a work breakdown structure.]

b. Intellectual/Cognitive Skills

[On completing the course, students should be able to:

- I.1 Differentiate between IT project selection methods based on strategic planning.
- I.2 Develop and defend logical arguments for the construction of a specific work breakdown structure.
- I.3 Plan the performance of activity duration estimation and schedule, development, and design a Gantt chart for schedule planning and tracking schedule information.
- I.4 Prepare IT project cost budget and analyse the extent to which it meets the specified requirements.
- I.5 Carry out performance analysis, critical appraisals and evaluation of the quality of IT project.]

c. Practical/Professional Skills

[On completing the course, students should be able to:

- P.1 Measure IT project quality attributes taking into consideration the project cost budget to select IT project and to prepare IT project cost budget.
- P.2 Apply project management tools to design Break Down Structure.
- P.3 Employ project management tools to design Gantt chart.
- P.4 Demonstrate various skills to prepare Pareto analysis.
- P.5 Prepare IT project documents.]

d. General and Transferable Skills

[On completing the course, students should be able to:

- G.1 Demonstrate project management skills, including time management, organization, communication, and presentation skills.
- G.2 Work coherently and effectively within a team to execute a project.
- G.3 Show the ability to identify and approach IT project problems systematically.]



Course Specification

V. Course Matrix Contents

	Main Topics / Chapters	Duration (Weeks)	Course ILOs Covered by Topic (By ILO Code)			
			K & U	I.S.	P.S.	G.S.
1-	Introduction to project management and IT project life cycle and project phases	[2]	[K1,K2,K3	[I1]	[]	[G1]
2-	IT project management process groups and IT project management methodology	[2]	[K1,K2,K3	[I1]	[P5]	[G1,G3]
3-	IT project scope management	[2]	[K3,K5]	[I1,I2]	[P2,P5]	[All]
4-	IT project time management	[2]	[K1,K3	[I3]	[P3]	[All]
5-	IT project cost management	[2]	[K1,K3	[I4]	[P1]	[All]
6-	IT project quality management	[3]	[K4]	[I5]	[P4]	[All]
	Net Teaching Weeks	13				

VI. Course Weekly Detailed Topics / hours / ILOs

Week No.	Sub-Topics	Total Hours	Contact Hours	
			Theoretical Hours	Practical Hours*
1	Project Attributes and Project Management Techniques	[2.5]	[2.5]	
2	IT Project Life Cycle and Phases	4	2.5	1.5
3	IT Project Management Process Groups	4	2.5	1.5
4	IT Project Management Methodology	4	2.5	1.5
5	Project Scope Management	4	2.5	1.5
6	Creating the Work Breakdown Structure	4	2.5	1.5
7	Midterm Exam			
8	Sequencing Activities and Estimating Resources and Durations	[4]	[2.5]	[1.5]
9	Developing and Controlling Schedules	4	2.5	1.5
10	Determining the Budget	4	2.5	1.5
11	Controlling Costs	4	2.5	1.5
12	Project Quality Management	4	2.5	1.5
13	Improving IT Project Quality	4	2.5	1.5
14	Improving IT Project Quality	4	2.5	1.5
15	Final Exam			
Total Teaching Hours		51	33	18

* No Practical/Tutorial during the first week of the semester



Course Specification

VII. Teaching and Learning Methods

Teaching/Learning Method	Selected Method	Course ILOs Covered by Method (By ILO Code)			
		K & U	Intellectual Skills	Professional Skills	General Skills
Lectures & Seminars	<input checked="" type="checkbox"/>	K1-K5	I1-I5		
Tutorials	<input type="checkbox"/>				
Computer lab Sessions	<input checked="" type="checkbox"/>			P1-P5	
Practical lab Work	<input checked="" type="checkbox"/>			P1-P5	
Reading Materials	<input checked="" type="checkbox"/>	K1-K5	I1-I5		
Web-site Searches	<input checked="" type="checkbox"/>	K1-K5	I1-I5		
Research & Reporting	<input type="checkbox"/>				
Problem Solving / Problem-based Learning	<input type="checkbox"/>				
Projects	<input type="checkbox"/>				
Independent Work	<input type="checkbox"/>				
Group Work	<input checked="" type="checkbox"/>			P1-P5	G1-G3
Case Studies	<input checked="" type="checkbox"/>			P1-P5	G1-G3
Presentations	<input checked="" type="checkbox"/>			P1-P5	
Simulation Analysis	<input type="checkbox"/>				
Others (Specify):	<input type="checkbox"/>				

VIII. Assessment Methods, Schedule and Grade Distribution

Assessment Method	Selected Method	Course ILOs Covered by Method (By ILO Code)				Assessment Weight / Percentage	Week No.
		K & U	I.S.	P.S.	G.S.		
Midterm Exam	<input checked="" type="checkbox"/>	K1-K5	I1-I5			10%	7
Final Exam	<input checked="" type="checkbox"/>	K1-K5	I1-I5			60%	15
Quizzes	<input checked="" type="checkbox"/>	K1-K5	I1-I5			5%	5
Course Work	<input type="checkbox"/>						
Report Writing	<input type="checkbox"/>						
Case Study Analysis	<input checked="" type="checkbox"/>			P1-P5	G1-G3	5%	9
Oral Presentations	<input type="checkbox"/>						
Practical	<input checked="" type="checkbox"/>			P1-P5		10%	10
Group Project	<input checked="" type="checkbox"/>			P1-P5	G1-G3	10%	12
Individual Project	<input type="checkbox"/>						
Others (Specify):	<input type="checkbox"/>						



Course Specification

IX. List of References

Essential Text Books	<ul style="list-style-type: none">• [Kathy Schwalbe, "Information Technology Project Management", 3rd Ed., Thomson Course Technology, 2004]
Course notes	<ul style="list-style-type: none">• [PowerPoint presentations for the course.]
Recommended books	<ul style="list-style-type: none">• [None]
Periodicals, Web sites, etc....	<ul style="list-style-type: none">• [The Guide to the Project Management Body of Knowledge (the PMBOK® Guide 2000), The Project Management Institute (PMI)• http://pleiad.cairo-avicenna.edu.eg/• Avicenna website which provides Information Engineering e-learning courses.• The Project Management Institute (PMI) is an international professional society. Their web site is www.pmi.org.]

X. Facilities required for teaching and learning

<ul style="list-style-type: none">• [Computer lab connected through a network.• Software: Microsoft Project Management, Microsoft Office]

Course coordinator:[Prof.Dr. Hesham El Mahdy]

Head of Department:Prof. Reda Abd el-Wahab

Date: [September 2014]