



Course Specification

Course Name: [Management Information Systems]

Course Code: [IS333]

I. Basic Course Information

Major or minor element of program: [Major and Minor]

Department offering the course: [Information Systems]

Academic level: [400 Level]

Semester in which course is offered: [Second (spring) Semester]

Course pre-requisite(s): [IS312 Database System – 2]

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: [January 2015]

II. Overall Aims of Course

[This module aims introducing the process view on information systems to students. In specific the modules addresses the following objectives

- Motivating the need for a process-oriented view on information systems
- Identifying the key elements of a process view on information systems
- Basics of process modeling techniques
- Classical correctness criteria of business processes
- Common modeling patterns
- Business processes and web services]

III. Program ILOs covered by course

Program Intended Learning Outcomes (By Code)			
Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
[K3,K4,K17,K19]	[I7,I10,I12]	[P12,P20,P22]	[G1,G9]



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IV. Intended Learning Outcomes of Course (ILOs)

a. Knowledge and Understanding

On completing the course, students should be able to:

- K.1 Discuss the importance of process-oriented view on information systems.
- K.2 Identify the different techniques in business process modeling.
- K.3 Recognize the formal notions of business processes and their correctness.
- K.4 Explain the basic concepts of different business process representations.]

b. Intellectual/Cognitive Skills

On completing the course, students should be able to:

- I.1 Differentiate between business process models developed in BPMN and EPC.
- I.2 Assess the correctness of a business process model.
- I.3 Distinguish between high level and technical business processes.
- I.4 Breakdown the different instantiation semantics of business processes.]

c. Practical/Professional Skills

On completing the course, students should be able to:

- P.1 Develop business process models using the BPMN language.
- P.2 Develop business process models using the EPC language.
- P.3 Decide on correctness criteria of business process models.]

d. General and Transferable Skills

On completing the course, students should be able to:

- G.1 Increase their overall modeling capabilities.
- G.2 Practice and use their knowledge about Business process modeling languages.]

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]	[1]	[K1]	[]	[]	[G1]
2-	[Basics of Process Modeling]	[2]	[K1]	[I3]	[]	[G1,G2]
3-	[Process Modeling Techniques (BPMN)]	[2]	[K2]	[I1,I3]	[P1]	[G2]
4-	[Petri nets and reachability]	[1]	[K3]	[I3]	[]	[]
5-	[Mapping of BPMN to Petri nets]	[1]	[]	[I3]	[]	[]
6-	[Soundness : structural, soundness, relaxed soundness]	[2]	[]	[I2]	[P3]	[]
7-	[Data consistency and anomalies]	[2]	[]	[I2]	[P3]	[]
8-	[EPCs and mapping to Petri nets]	[1]	[]	[I1]	[P2]	[G2]
9-	[Process instantiation]	[1]	[]	[I4]	[]	[]
	Net Teaching Weeks	13				



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VI. Course Weekly Detailed Topics / hours / ILOs

Week No.	Sub-Topics	Total Hours	Contact Hours	
			Theoretical Hours	Practical Hours *
1	Introduction	2.5	2.5	
2	Basics of Process modeling, control flow	4	2.5	1.5
3	Basics of process modeling, data flow	4	2.5	1.5
4	Business process model and notation (BPMN), BPMN Metamodel and control flow modeling	4	2.5	1.5
5	Data flow in BPMN	4	2.5	1.5
6	Introduction to Petri nets and reachability	4	2.5	1.5
7	Midterm Exam			
8	Mapping BPMN to Petri nets	4	2.5	1.5
9	Soundness checking based on reachability	4	2.5	1.5
10	Relaxed soundness	4	2.5	1.5
11	Data consistency in process models	4	2.5	1.5
12	Data anomalies in process models	4	2.5	1.5
13	Event-driven process chains (EPCs)	4	2.5	1.5
14	Process instantiation	4	2.5	1.5
15	Final Exam			
Total Teaching Hours		51	33	18

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

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	X	K1,K3	I1,I2,I3,I4		
Tutorials					
Computer lab Sessions	X	K2	I2,I3	P1,P2,P3	G1,G2
Practical lab Work					
Reading Materials					
Web-site Searches					
Research & Reporting					
Problem Solving / Problem-based Learning	X	K2	I2,I3	P1,P2,P3	G1
Projects					
Independent Work					
Group Work					
Case Studies					
Presentations					
Simulation Analysis					
Others (Specify):					



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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	[X]	[K1,K3]	[I2,I3]	[]	[]	[10%]	7
Final Exam	[X]	[K1,K3]	[I2,I3,I4]	[P1,P2,P3]	[]	60%	15
Quizzes	[X]	[K1,K2,K3]	[I2,I3,I4]	[]	[G1,G2]	[5%]	[2,3,4,5,6,7,8,9,10]
Course Work	[X]	[K1,K2,K3]	[I1,I2,I3,I4]	[P1,P2,P3]	[G2]	[25%]	[3,5,8,10,12]
Report Writing	[]	[]	[]	[]	[]	[]	[]
Case Study Analysis	[]	[]	[]	[]	[]	[]	[]
Oral Presentations	[]	[]	[]	[]	[]	[]	[]
Practical	[]	[]	[]	[]	[]	[]	[]
Group Project	[]	[]	[]	[]	[]	[]	[]
Individual Project	[]	[]	[]	[]	[]	[]	[]
Others (Specify):	[]	[]	[]	[]	[]	[]	[]

IX. List of References

Essential Text Books	<ul style="list-style-type: none"> [Business Process Management Process-aware Information Systems]
Course notes	<ul style="list-style-type: none"> [None]
Recommended books	<ul style="list-style-type: none"> [None]
Periodicals, Web sites, etc ...	<ul style="list-style-type: none"> [None]

X. Facilities required for teaching and learning

<p>[List the facilities required</p> <ul style="list-style-type: none"> Classroom with a projector (data show) Labs with access to the Internet]

Course coordinator:[Dr. Hatem El Kady]

Head of Department:[Ass. Prof. Ehab Ezzat]

Date: [January 2015]