



Course Specification

Course Name:[Intelligent Information Systems]

Course Code:[IS441]

I. Basic Course Information

Major or minor element of program:[Major]

Department offering the course:[Information Systems Department]

Academic level:[400 Level]

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

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

Credit Hours: 3

Contact Hours Through:

Lecture	Tutorial*	Practical*	Total
2.5	1.5	0.0	4.0

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

Approval date of course specification: September 2014

II. Overall Aims of Course

[Introduce intelligent information systems to information systems students and show the advanced research and writings in this field.]

III. Program ILOs covered by course

Program Intended Learning Outcomes (By Code)			
Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
[K1,K17,K19]	[I14,I17,I18]	[P12,P14,P22]	[G2,G4,G6]



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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 basic concepts of deductive databases.
- K.2 Difference between relational and deductive databases.
- K.3 Explain the different approaches for implementing intelligent information systems.]

b. Intellectual/Cognitive Skills

On completing the course, students should be able to:

- I.1 [Model an Intelligent Database for a complex organization.
- I.2 Include business intelligence for complex information systems.
- I.3 Design a complete intelligent information system.]

c. Practical/Professional Skills

On completing the course, students should be able to:

- P.1 [Use different intelligent database and expert systems implementations.
- P.2 Construct programs to implement an intelligent information system.
- P.3 Maintain intelligent information systems.]

d. General and Transferable Skills

On completing the course, students should be able to:

- G.1 [Read and present academic papers.
- G.2 Enhance presentation skills.
- G.3 Enhance team working skills.]

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 Deductive Databases]	[2]	[K1]	[]	[]	[]
2-	[Comparing Relational database with Deductive Database]	[2]	[K2]	[]	[]	[]
3-	[Comparing Deductive databases with Expert Systems]	[1]	[K2]	[I2]	[]	[]
4-	[First- order Logic]	[2]	[K1,K3]	[I1]	[]	[]
5-	[Second- Order Logic and its database implications]	[1]	[K1]	[]	[]	[]
6-	[Higher order Logic]	[1]	[K3]	[]	[]	[]
7-	[Business Intelligence]	[1]	[K3]	[I3]	[P1,P2]	[]
8-	[Building Intelligent Information systems]	[1]	[K3]	[]	[P1]	[G2]
9-	[Performance Issues for Intelligent Information systems]	[1]	[K3]	[]	[P3]	[G1,G3]
10-	[Trends]	[1]	[K3]	[]	[]	[]
	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 To Deductive Databases]	[2.5]	[2.5]	
2	[Introduction To Deductive Databases]	[4]	[2.5]	[1.5]
3	[Comparing Relational database with Deductive Database]	[4]	[2.5]	[1.5]
4	[Comparing Relational database with Deductive Database]	[4]	[2.5]	[1.5]
5	[Combining Deductive databases with Expert Systems]	[4]	[2.5]	[1.5]
6	[First-Order Logic]	[4]	[2.5]	[1.5]
7	Midterm Exam			
8	[First-Order Logic]	[4]	[2.5]	[1.5]
9	[Second- Order Logic and its database implications]	[4]	[2.5]	[1.5]
10	[Higher order Logic]	[4]	[2.5]	[1.5]
11	[Graphical user Interface for intelligent IS]	[4]	[2.5]	[1.5]
12	[Adding Business Intelligence for an IS]	[4]	[2.5]	[1.5]
13	[Building Intelligent Information systems]	[4]	[2.5]	[1.5]
14	[Trends]	[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]	[All]	[]	[]	[]
Tutorials	[]	[]	[]	[]	[]
Computer lab Sessions	[]	[]	[]	[]	[]
Practical lab Work	[X]	[]	[All]	[All]	[]
Reading Materials	[X]	[All]	[]	[]	[All]
Web-site Searches	[X]	[]	[]	[]	[All]
Research & Reporting	[]	[]	[]	[]	[]
Problem Solving / Problem-based Learning	[]	[]	[]	[]	[]
Projects	[]	[]	[]	[]	[]
Independent Work	[]	[]	[]	[]	[]
Group Work	[X]	[]	[]	[All]	[]
Case Studies	[X]	[]	[I1,I2]	[]	[]
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	All	I1,I2			20%	7
Final Exam	X	All	I1,I2			60%	15
Quizzes							
Course Work	X			All	All	20%	3,5,9,11,13
Report Writing							
Case Study Analysis							
Oral Presentations							
Practical			I3				
Group Project							
Individual Project							
Others (Specify):							

IX. List of References

Essential Text Books	<ul style="list-style-type: none"> Advances in Knowledge-Based and Intelligent Information and Engineering Systems (Frontiers in Artificial Intelligence and Applications By M. Graña, C. Toro, J. Posada, R.J. Howlett, L.C. Jain Paperback: 2402 pages Publisher: IOS Press (September 15, 2012) ISBN-10: 1614991049 ISBN-13: 978-1614991045
Course notes	• None
Recommended books	• None
Periodicals, Web sites, etc ...	• www.drehab.net

X. Facilities required for teaching and learning

List the facilities required <ul style="list-style-type: none"> Computer Data show
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Course coordinator: [Ass. Prof. Ehab Ezzat]

Head of Department: Ass. Prof. Ehab Ezzat

Date: September 2014