

Course Specification
(2201 System Analysis)

Faculty: HICIT- Higher Institute for Computers & Information Technology

Programme(s) Title: Under graduate program in Computer Science

Major or minor element of programme: Compulsory

Department offering the programme: Department of Computer Science

Department offering the course: Department of Computer Science

Academic year / Class: 2nd Year – 2nd Semester

Main/Secondary: Main

Date of specification approval: 22/2/2016

A- Basic Information

Title: System Analysis

Code: 2201

Weekly Hours:

Lecture: 3

Exercise: -

Practical: 3

Total: 6

B- Professional Information

1 - Course Objectives:

The objective of CS2201 is to give the student the knowledge and practice of how to study and analyze a new information system or an already existing business system, to detect weaknesses, evolve its performance and functionalities, or to add a new functionality, how to conduct the data and information gathering techniques, how to model an existing and a proposed system and prepare its meta data.

After completing this course, the student should be able to conduct system analysis phases, conduct data gathering techniques, build system models, detect system bottlenecks and propose solutions.

2- Program ILOs Covered by Course

Program Intended Learning Outcomes			
Knowledge and understanding	Intellectual Skills	Professional and practical skills	General and Transferable skills
a3, a11, a13, a15, a17, a21, a22	b1, b4, b6, b7, b14, b17	c5, c6, c9, c13, c15, c19	d1, d2, d5, d9, d10, d12

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

- a1. Understanding the definition of a system, the description of its components, the various types of information systems, and the development life cycle.
- a2. explain system analysis phases, fact finding techniques, system modeling techniques
- a3. describe the results of the system analysis process

b- Intellectual skills

- b1. Think over existing weaknesses/difficulties in the current system, tending to be solved.
- b2. Think over the overall system components and to propose new system that overcomes existing weaknesses.
- b3. Evaluate various system alternatives and prioritize the different system alternatives.

c- Professional and practical skills

- c1. Propose new business systems and their new components.
- c2. Gather data from system owners and system users.
- c3. Model an existing and proposed system.

d- General and transferable skills

- d1. Communicate with system owners to gather the required information.
- d2. Work with a team to implement a system and write technical report

4. Contents

Topic	No. of Hours	Lectures	Practical
Introduction to system analysis.	12	6	6
Information systems development.	12	6	6
System analysis phases.	12	6	6
Fact finding techniques.	12	6	6
System modeling techniques	12	6	6
system analysis documentation	12	6	6
Course Project	6	3	3

5 -Teaching and learning methods

- 5.1 Lectures
- 5.2 Tutorial Exercises
- 5.3 Discussions.

6- Student assessment methods

- 6.1 Midterm Exam: To assess the knowledge and understanding achieved by the student during the previous weeks.
- 6.2 Final Exam: To evaluate what the student gain at the end of the course, and to assess: the knowledge and understanding, general skills, and intellectual skills.
- 6.3 Course Project: To allow students work in team, and to evaluate knowledge, understanding, intellectual, and transferable skills.
- 6.4 Course Work &Quizzes: To keep the student always in the course, and to evaluate knowledge, understanding, intellectual, and transferable skills.

Assessment Schedule

Assessment	Week #
Mid Term Exam	8
Final Exam	16
Course Project	3-14
Course Work &Quizzes	2-14

Assessment Weight

Assessment	Weigh %
Mid Term Exam	5%
Final Exam	80%
Course Project	10%
Course Work &Quizzes	5%
Total	100

Course Work & Quizzes: (Short Exams, Assignments, Researches, Reports, Presentations, Class/Project discussion)

7 -List of references

7.1 -Essential books (text books)

System Analysis and Design
 Kenneth E. Kendall & Julie E. Kendall
 Prentice-Hall of India, 2001
Systems Analysis and Design (9th Edition) by Kenneth E. Kendall & Julie E. Kendall

7.2 Recommended books

Basic System Analysis
 Alan Daniels, Don Yeates, 1979

7.3 -Periodicals, Web sites, ... etc

None

8- Facilities required for teaching and learning

MS Project SW Package for scheduling projects
 MS Power Point SW Package for presentation
 MS Visio SW Package to build the Data flow diagrams
 MS Access database SW Package to practice building and documenting ERD
 MS Word SW Package for system documentation preparation

9-Course Matrices

9.1-Course Content/ILO Matrix

Course Contents	a1	a2	a3	b1	b2	b3	c1	c2	c3	d1	d2
Introduction to system analysis.	√										
Information systems development.	√										
System analysis phases.		√		√	√	√	√				
Fact finding techniques.		√						√			
System modeling techniques		√							√		
system analysis documentation			√								
Course Project										√	√

9.2-Learning Method /ILO Matrix

Learning Methods	a1	a2	a3	b1	b2	b3	c1	c2	c3	d1	d2
Lectures	√	√	√	√	√	√	√	√	√		
Tutorial Exercises				√	√	√	√	√	√		
Discussions				√	√	√	√	√	√	√	√

9.3-Assessment Methods /ILO Matrix

Assessment Methods	a1	a2	a3	b1	b2	b3	c1	c2	c3	d1	d2
Mid Term Exam	√	√	√	√	√	√	√	√	√		
Final Exam	√	√	√	√	√	√	√	√	√		
Course Project	√	√	√	√	√	√	√	√	√	√	√
Course Work & Quizzes	√	√	√	√	√	√	√	√	√	√	√

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