

COURSE INFORMATION					
Course Title	Code	Semester	T+P+L Hour	Credits	ECTS
Information Analysis and System Design	CIS511		3+0+0	3	10

Prerequisites	-
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Language of Instruction	English
Course Level	Master's Degree
Course Type	Elective
Course Coordinator	Asst. Prof. Çağla ÖZEN
Instructors	Asst. Prof. Çağla ÖZEN
Assistants	
Goals	Enable learners to gain an understanding of the principles of systems analysis and equip them with the skills to analyze business requirements and design solutions to meet business needs.
Content	This course introduces the fundamental concepts, frameworks, methodologies, techniques, and tools that are crucial to improve the skills to manage and develop information systems (IS). Topics covered include all the phases of Systems Development Life Cycle (SDLC).

Learning Outcomes	Program Learning Outcomes	Teaching Methods	Assessment Methods
Understand the principle of the system analysis.	1,2,11	1,2,3	A
Be able to specify requirements of the system.	1,2,11	1,2,3,5	A, D
Be able to design system components and environments.	1,2,3	1,2,3,4	A, D
Be able to build detailed models to support programmers.	1,2,3,7,8	1,2,3,5	A, D
Be able to understand database components for input, output and controls of the user interfaces.	1,2,3,7,8	1,2,3,4	A, D
Solve a wide range of problems related to the analysis, design and construction of IS.	1,2	1,2,3,5	D

Teaching Methods:	1: Lecture, 2: Question-Answer, 3: Discussion, 4: Simulation, 5: Case Study
Assessment Methods:	A: Testing, B: Presentation, C: Homework, D: Project, E: Laboratory

COURSE CONTENT		
Week	Topics	Study Materials
1	Introduction	Course Syllabus
2	System Analysis and Fundamentals	CHP1
3	Business Justification	CHP2

4	Project Management	CHP3
5	Determining Requirements	CHP4
6	Data and Process Analysis	CHP5
7	Object Analysis	CHP6
8	Options for Development	CHP7
9	Designing the Interface	CHP8
10	Designing the Data	CHP9
11	System Construction Planning	CHP10
12	Making System Operational	CHP11
13	Securing and Supporting Systems	CHP12
14	Review	
15	Final	

RECOMMENDED SOURCES

Textbook Harry J. Rosenblatt, *System Analysis & Design for Systems*, 2014, International 10th Edition, Course Technology, ISBN: 978-1-285-17134-0.

Additional Resources

MATERIAL SHARING

Documents

Assignments

Exams

ASSESSMENT

IN-TERM STUDIES	NUMBER	PERCENTAGE
Mid-terms	1	30
Assignment	2	30
Total		100
Contribution of Final Examination to Overall Grade		40
Contribution of In-Term Studies to Overall Grade		60
Total		100

COURSE'S CONTRIBUTION TO PROGRAM

No	Program Learning Outcomes	Contribution				
		1	2	3	4	5

1	Information Systems graduates have the knowledge and the skills to design and develop the complete systems for multi-media visual user interface.	x
2	Information Systems graduates have advanced the knowledge and skills to design, develop and install the application systems for multi-media.	x
3	Information Systems graduates have the knowledge and the skills to design, develop and apply algorithms and data structures to solve the basic problems of information processing, within the framework of discrete mathematics.	x
4	Information Systems graduates have the knowledge and the skills to design and develop computer applications, based on user specified requirements, using modern structured development tools and install them on various hardware platforms and deploy their usage.	
5	Information Systems graduates have the knowledge and the skills to design and develop computer applications, based on user specified requirements, using modern object-oriented development tools and install them on various hardware platforms and deploy their usage.	x
6	Information Systems graduates know the logic of computer operating systems, the basic set of system commands, how to control access to system resources by users of different departments and how to monitor the running of jobs in the system.	
7	Information Systems graduates have the knowledge and the skills to design and develop data models serving different requirements, database applications that would access and process data using various types of software, including queries, reports, and business applications.	x
8	Information Systems graduates have the knowledge and the skills to design and develop business applications that would provide data access, modification and processing for data kept in enterprise database systems.	x
9	Information Systems graduates have the knowledge about computer networks, and have the skills to design, develop and monitor computer networks, how to configure them and how to maintain their performance.	
10	Information Systems graduates have the knowledge and the skills to design and develop visual user interfaces for the web, web-based applications for n-tier client/server configurations, how to deploy them in enterprises.	
11	Information Systems graduates, within his/her job responsibilities can communicate the necessary information both written and orally in Turkish, English and another foreign language, respecting the values the societal institutions and establishments, of which he/she has acquired in the program.	x

COURSE CATEGORY	Expertise/Field Courses		
ECTS ALLOCATED BASED ON STUDENT WORKLOAD BY THE COURSE DESCRIPTION			
Activities	Quantity	Duration (Hour)	Total Workload (Hour)
Course Duration	14	3	42
Hours for off-the-classroom study (Pre-study, practice)	14	5	70
Mid-term	2	3	6

Project	6	8	48
Assignment	2	40	80
Final Examination	1	3	3
Total Workload			249
Total Workload / 25 (s)			9.96
ECTS Credit of the Course			10