COURSE INFORMATON					
Course Title	*Code*	*Semester*	*L+P Hour*	*Credits*	*ECTS*
ADVANCED TOPICS IN INFORMATION SYSTEM ANALYSIS AND DESIGN	**CSE544**		**3**	**3**	**7**

Prerequisites	

Language of Instruction	English
Course Level	Master's Degree
Course Type	Elective
Course Coordinator	
Instructors	Assist.Prof. Dr. Birol Aygün
Assistants	
Goals	Understanding of advanced topics in information systems analysis, design, implementation and utilizaton
Content	1) Origins and need for information systems, 2) Evolution, classification and organization by type, 3) Technologies, design and implementation, 4) Analysis and modelling, 5) Utilization, evaluation and re-engineering, 6) Project assignments

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Course Learning Outcomes	Program Learning Outcomes	Teaching Methods	Assessment Methods
1) Origins and need for information systems	1,4	1,2	A,C,D
2) Evolution, classification and organization of information systems by general type	1,2,3,4	1,2,4	A,C,D
3) Use of new technologies in design and implementation	1,2,4,5	1,2,5	A,B,D
4) Analysis, modelling	1,2,3,4	1,2,4	B,C,D
5) Security issues, utilization, overall evaluation and re-engineering	1,2,3,4,5	1,2,4	A,C,D
6) Individual Project Development	1,2,4	4	D

Teaching Methods:	1: Lecture, 2: Question-Answer, 3: Lab, 4: Case-study
Assessment Methods:	A: Testing, B: Experiment, C: Homework, D: Project

COURSE CONTENT	
Week **Topics**	**Study Materials**

1	Origins and need for information systems, earliest information systems	Textbook ,slides, course notes
2	Evolution, classification and organization of information systems by type	Textbook , slides, course notes
3	Technologies, design and implementation -I	Textbook , slides, course notes
4	Technologies, design and implementation -II	Textbook , slides, course notes
5	Technologies, design and implementation – III, project assigment	Textbook , slides, course notes, , project descriptions
6	Course review	Textbook , slides, course notes
7	Midterm exam	Textbook , slides, course notes
8	Analysis and modelling technologies and techniques -I	Textbook , slides, course notes, case studies
9	Analysis and modelling technologies and techniques -II	Textbook , slides, course notes, case studies
10	Utilization, evaluation and re-engineering of information systems -I	Textbook , slides, course notes, case studies
11	Utilization, evaluation and re-engineering of information systems- II	Textbook , slides, course notes, case studies
12	Course Review	Textbook , slides, outside material
13	Course review	Textbook , slides, outside material
14	Project presentations and in-class evaluations	Project demos and documents

RECOMMENDED SOURCES	
Textbook	Allan Afuah and Christopher L. Tucci, "Internet Business Models and Strategies" McGraw-Hill Publication
Additional Resources	Class Notes, reading list (TBA)

ASSESSMENT		
IN-TERM STUDIES	**NUMBER**	**PERCENTAGE**
Mid-terms	1	20
Exercises	3	15
Term Project	1	25
Final Exam	1	30
Attendance and participation		**10**
Total		**100**
CONTRIBUTION OF FINAL EXAMINATION TO OVERALL GRADE		35
CONTRIBUTION OF IN-TERM STUDIES TO OVERALL GRADE		65
Total		**100**

COURSE CATEGORY	Expertise/Field Courses

COURSE'S CONTRIBUTION TO PROGRAM						
No	Program Learning Outcomes	Contribution				
		1	2	3	4	5
1	Knowledge in the advanced computer architecture field				X	
2	Knowledge in advanced system design for computer engineering			X		
3	Knowledge in the theoretical topics of computer science			X		
4	Ability to comprehend, analyse and critique academic publications and conduct scholarly research at the frontiers of computer engineering				X	
5	Ability and knowledge in the fields of Next-Generation and contemporary computer networks				X	

ECTS ALLOCATED BASED ON STUDENT WORKLOAD BY THE COURSE DESCRIPTION

Activities	Quantity	Duration (Hour)	Total Workload (Hour)
Course Duration (Excluding the exam weeks: 15x Total course hours)	15	2	30
Hours for off-the-classroom study (Pre-study, practice)	25	4	100
Midterm examination	1	3	3
Labwork	15	1	15
Project	1	25	25
Final examination	1	3	3
Total Work Load			176
Total Work Load / 25 (h)			5.0
ECTS Credit of the Course			7