

<b>COURSE INFORMATION</b>					
<b>Course Title</b>	<i>Code</i>	<i>Semester</i>	<i>L+P+L Hour</i>	<i>Credits</i>	<i>ECTS</i>
Decision Support Systems	CIS 515		3 + 0 + 0	3	10

<b>Prerequisites</b>	-
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<b>Language of Instruction</b>	English
<b>Course Level</b>	Master's Degree
<b>Course Type</b>	Elective
<b>Course Coordinator</b>	
<b>Instructors</b>	
<b>Assistants</b>	
<b>Goals</b>	Rational decision making and appropriate information support, components of decision support systems (DSS), application and evaluation of data, information, databases, database management systems, knowledge bases, data warehouses.
<b>Content</b>	This course includes the following topics: Rational decision making and appropriate information support, components of decision support systems (DSS): data, information, databases, database management systems, knowledge bases, data warehouses, DSS design, implementation and evaluation.

<b>Learning Outcomes</b>	<b>Programme Learning Outcomes</b>	<b>Teaching Methods</b>	<b>Assessment Methods</b>
1) Has knowledge about the concept of decision and decision support.	7,8	1,2,3	A,B,C
2) Learns the components of the decision support system.	7,8	1,2,3	A,B,C
3) Have knowledge about database management systems and data warehouses.	7,8	1,2,3	A,C
4) Have knowledge about management information systems and simulation.	7,8	1,2,3	A,C
5) Learns how to design a decision support system..	7,8	1,2,3	A,C

<b>Teaching Methods:</b>	1: Lecture, 2: Question-Answer, 3: Discussion, 4: Application
<b>Assessment Methods:</b>	A: Testing B: Presentation C: Homework D: Project E: Laboratory

<b>COURSE CONTENT</b>		
<b>Week</b>	<b>Topics</b>	<b>Study Materials</b>
1	Decision concepts and decision making.	
2	Components of decision support systems.	
3	Database management systems.	
4	Data warehouses.	
5	Expert systems.	
6	Rule-based modeling.	
7	Uncertainty factors.	
8	MIDTERM	
9	System dynamics and simulation.	
10	Group decision support systems.	
11	Management information systems.	
12	Design of a decision support system	
13	Application of a decision support system	
14	Presentations	
15	FINAL	

<b>RECOMMENDED SOURCES</b>	
<b>Textbook</b>	DECISION SUPPORT SYSTEMS AND INTELLIGENT SYSTEMS, Efraim TURBAN, Jay E. ARANSON, , Pearson Education, 9. Edition
<b>Additional Resources</b>	DATABASE SYSTEMS, Thomas CONNOLLY-Carolyn BEGG, Pearson Education, 4. Edition

<b>MATERIAL SHARING</b>
<b>Documents</b>
<b>Assignments</b>
<b>Exams</b>

<b>ASSESSMENT</b>			
<b>IN-TERM STUDIES</b>		<b>NUMBER</b>	<b>PERCENTAGE</b>
Midterm		1	70
Project		1	20
Homework		1	10
	<b>Total</b>		<b>100</b>

<b>CONTRIBUTION OF FINAL EXAMINATION TO OVERALL GRADE</b>	60
<b>CONTRIBUTION OF IN-TERM STUDIES TO OVERALL GRADE</b>	40
<b>Total</b>	<b>100</b>

<b>COURSE CATEGORY</b>	Expertise/Field Courses
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<b>COURSE'S CONTRIBUTION TO PROGRAMME</b>						
No	Program Learning Outcomes	Contribution				
		1	2	3	4	5
1	Information systems graduates have knowledge about creating the necessary systems for the design and development of visual interfaces in multi-media environments that emerge with developing computer technologies.			<b>X</b>		
2	Information systems graduates have advanced knowledge about creating the necessary systems to design, develop and use computer applications suitable for users' purposes in multiple environments that emerge with developing computer technologies.			<b>X</b>		
3	Has the knowledge and skills to design, develop and apply the necessary algorithm data structures to solve the basic functioning and problems of computer science within the framework of abstract mathematics.		<b>X</b>			
4	Informatics graduates have the knowledge and skills to design appropriate software logic with the structured software development tools developed to date, to develop these software and to make them available to end users in different hardware environments.				<b>X</b>	
5	Informatics graduates have the knowledge and skills to design appropriate software logic with the object-oriented software development tools developed to date, to develop these software and to make them available to end users in different hardware environments.			<b>X</b>		
6	Informatics graduates know the operating logic of operating systems, the basic components of computers, the development of commands for the management of tasks and user privileges in the system, and their implementation in different hardware environments.		<b>X</b>			
7	Informatics graduates have knowledge and skills about data concepts, structures, models and database applications, and about designing, developing and implementing tools to access and process data in relational databases.					<b>X</b>
8	Informatics graduates have the knowledge and skills to develop and implement data stores with relevant software tools in modeling data stores of commercial software, accessing data by connecting (through) the software, and processing data.					<b>X</b>
9	Informatics graduates have the necessary and sufficient knowledge to understand the basics of computer networks, design and configure the network system, maintain it and solve its problems.			<b>X</b>		
10	Informatics graduates have the necessary knowledge, skills and equipment to design, develop and implement visual interfaces and software that can work in multi-layer client/server architecture specifically for the Internet, which is today's largest computer network.			<b>X</b>		

<b>ECTS ALLOCATED BASED ON STUDENT WORKLOAD BY THE COURSE DESCRIPTION</b>			
Activities	Quantity	Duration (Hour)	Total Workload (Hour)
Course Duration (Including the exam week: 16x Total course hours)	14	3	42
Hours for off-the-classroom study (Pre-study, practice)	14	5	70
Homework	10	10	100
Quizzes	10	1	10
<b>Midterm</b>	<b>1</b>	10	10
<b>Final</b>	<b>1</b>	10	10
<b>Total Work Load</b>			242
<b>Total Work Load / 25 (h)</b>			9.6
<b>ECTS Credit of the Course</b>			10