OSTIM TECHNICAL UNIVERSITY
FACULTY OF ECONOMICS AND ADMINISTRATIVE SCIENCES
MANAGEMENT INFORMATION SYSTEMS DEPARTMENT
COURSE SYLLABUS FORM

MIS 342 Enterprise Architecture							
Course Name	**Course Code**	**Period**	**Hours**	**Application**	**Laboratory**	**Credit**	**ECTS**
Enterprise Architecture	MIS 342	1	3	0	0	3	6

Language of Instruction	English
Course Status	Compulsory
Course Level	Bachelor
Learning and Teaching Techniques of the Course	Lecture, Question-Answer, Problem Solving

Course Objective

Enterprise Architecture (EA) refers to a coherent whole of principles, methods, and models that are used in the design and realization of an enterprise's information security, organizational structure, business processes, and infrastructure. EA is an instrument used by businesses to achieve alignment between business and IT within an organization. This alignment has been the major challenge as organizations go through transformation that keep them competitive and agile. Employing successful Enterprise Architecture ensures that changes to business process are correctly supported by information systems, security, and their underlying IT infrastructure. The objective of this course is to introduce to students the emerging area of business information architecture and security. The course provides them with an understanding of the state-of-the-art architecture and security technologies for securing and optimal use of business infrastructure.

Learning Outcomes

This course is designed to help students develop skills and knowledge in the following area(s):

- Learn the tools, techniques, and methods of optimal use and protection of Information Assets, Architecture and Processes

- Learn the tools, techniques, and methods for optimal use of Information Systems Operations, Maintenance, and Support

- Learn the tools, techniques, and methods of securing Information Systems Acquisition, Development, and Implementation

- Learn the tools, techniques, and methods of Governance and Management of IT within the Enterprise Architecture

- Learn the tools, techniques, and methods of Auditing Information Systems within the realm of Information Infrastructure.

Course Outline
Students develop these skills and knowledge through the following course activities and assignments: • Lectures: Class lectures generally include an introduction to the specific enterprise architecture concepts being covered, and follow a slide presentation of the material to transfer the knowledge to the students. Lectures make use of practical examples from business and industry, and interactive exercises to help ensure thorough comprehension of the material. • Homework Assignments. Homework is assigned to reinforce concepts in the course and for students to practice newly acquired skills. Homework is turned in, graded, and then reviewed in class to ensure knowledge transfer. • Quizzes and Exam. The course includes two exams to formally assess students' knowledge and comprehension.

Weekly Topics and Related Preparation Studies		
Weeks	**Topics**	**Preparation Studies**
1	Class overview, Introduction to elements of Enterprise Architecture Chapter-1: Becoming a CISA	– What it means to be a CISA-certified professional – Getting to know ISACA, its code of ethics, and its standards – Undergoing the certification process – Applying for the exam – Maintaining your certification – Getting the most from your CISA journey
2-4	Chapter 2: IT Governance and Management	– IT governance structure – Human resources management – IT policies, standards, processes, and procedures – Management practices – IT resource investment, use, and allocation practices – IT contracting and contract management strategies and practices – Risk management practices – Monitoring and assurance
5-7	Chapter 3: Information Systems Auditing Process	– Audit management – ISACA auditing standards and guidelines – Audit and risk analysis – Internal controls – Performing an audit – Control self-assessments – Audit recommendations
8	**MIDTERM EXAM**	
9-11	Chapter 4: IT Life Cycle Management	– Program and project management – The systems development life cycle (SDLC)

		– Infrastructure development and implementation – Maintaining information systems – Business processes and business process reengineering – Managing third-party risk – Application controls – Auditing the software development life cycle – Auditing business and application controls – Auditing third parties
12-14	Chapter 5: IT Service Management and Continuity	– Information systems operations – Information systems hardware – Information systems architecture and software – Network infrastructure, technologies, models, and protocols – Business continuity and disaster recovery planning – Auditing infrastructure, operations, business continuity and disaster recovery planning
15	Chapter 6: Information Asset Protection	– Information security management – Logical access controls – Network security – Environmental security – Physical security – Privacy
16	**FINAL EXAM**	

Textbook(s)/References/Materials:
Textbook: Gregory, P. H. (2018). CISA certified information systems auditor all-in-one exam guide. McGraw Hill Professional.4th edition
Supplementary References: • Iyamu, T. (2022). Enterprise Architecture for Strategic Management of Modern IT Solutions. CRC Press. • Hohpe, G. (2020). The Software Architect Elevator: Redefining the Architect's Role in the Digital Enterprise. O'Reilly Media. • Kotusev, S. (2018). The practice of enterprise architecture: A modern approach to business and IT alignment. Sk Publishing.
Other Materials: Fowler, M. (2012). Patterns of Enterprise Application Architecture. Addison-Wesley.

Assessment		
Studies	**Number**	**Contribution margin (%)**
Attendance		
Lab		
Class participation and performance	**1**	**10**
Field Study		
Course-Specific Internship (if any)		
Quizzes / Studio / Critical	**5**	**10**
Homework		
Presentation		
Projects		
Report		
Seminar		
Midterm Exam/Midterm Jury	**1**	**30**
General Exam / Final Jury	**1**	**50**
Total		**100**
Success Grade Contribution of Semester Studies		**50**
Success Grade Contribution of End of Term		**50**
Total		**100**

ECTS / Workload Table			
Activities	**Number**	**Duration (Hours)**	**Total Workload**
Course hours (Including the exam week): 16 x total course hours)	16	3	48
Laboratory			
Application			
Course-Specific Internship (if any)			
Field Study			
Study Time Out of Class	16	3	48
Presentation / Seminar Preparation			
Projects			
Reports			
Homework			
Quizzes / Studio Review	5	1	5
Preparation Time for Midterm Exams / Midterm Jury	2	20	40
Preparation Period for the Final Exam / General Jury	1	40	40
Total Workload	**(181/30 = 6,03)**		**181**

Course' Contribution Level to Learning Outcomes						
Nu	**Learning Outcomes**	**Contribution Level**				
		1	**2**	**3**	**4**	**5**
LO1	Learn the tools, techniques, and methods of optimal use and protection of Information Assets, Architecture and Processes					X
LO2	Learn the tools, techniques, and methods for optimal use of Information Systems Operations, Maintenance, and Support					X
LO3	Learn the tools, techniques, and methods of securing Information Systems Acquisition, Development, and Implementation					X
LO4	Learn the tools, techniques, and methods of Governance and Management of IT within the Enterprise Architecture					X
LO5	Learn the tools, techniques, and methods of Auditing Information Systems within the realm of Information Infrastructure.					X
LO6	Learn the tools, techniques, and methods of optimal use and protection of Information Assets, Architecture and Processes					X

	Relationship Between Course Learning Outcomes and Program Competencies (Department of Management Information Systems)							
Nu	**Program Competencies**	**Learning Outcomes**						**Total Effect (1-5)**
		LO1	**LO2**	**LO3**	**LO4**	**LO5**	**LO6**	
1	Recognize and distinguish the basic concepts such as data, information, and knowledge in the field of Management Information Systems and know the processes to be followed for data acquisition, storage, updating, and security.	x			x	x		**5**
2	Develop and manage databases suitable for collecting, storing, and updating data.			x	x			**4**
3	As a result of his/her ability to think algorithmically, and easily find solutions to problems concerning basic business functions.		x	x		x	x	**5**
4	Learn programming logic, and have information about current programming languages.			x				**4**
5	Be able to use up-to-date programming languages.		x	x		x		**5**
6	Be able to take part in teamwork or lead a team using knowledge of project management processes.	x			x		x	**5**
7	Know ethical and legal rules, and use professional field knowledge within the scope of ethical and legal rules.			x	x	x		**5**
8	Know the fundamental areas of business administration namely management and organization, production, finance, marketing, numerical methods, accounting, etc., and have the knowledge and skills to work in-depth in at least one of them.						x	**3**
9	Be able to solve the problems encountered in the field of internet programming by designing web applications.			x		x	x	**5**
10	Develop and manage logistics and supply chain management activities					x	x	**5**
11	Adapt his/her theoretical knowledge and the experience he/she will gain through practice at the departments of businesses such as information technologies, R&D, and management to real life.					x		**4**
12	Be able to develop strategies that will provide a competitive advantage with his/her advanced knowledge of management strategies and management functions.		x		x			**2**

13	Develop a business idea, commercialize the business idea, and design and manage his/her venture using entrepreneurial knowledge.	x					x	**3**
14	By using English effectively, they can follow, read, write, speak and communicate universal information in the field of management information systems in a foreign language with professional competence.	x	x	x	x	x	x	**5**
Total Effect								**59**

Policies and Procedures
Web page: https://www.ostimteknik.edu.tr/management-information-systems-english-1241/915
Exams: The exams aim at assessing various dimensions of learning: knowledge of concepts and theories and the ability to apply this knowledge to real-world phenomena, through analyzing the situation, distinguishing problems, and suggesting solutions. The written exams can be of two types, ie. open-ended questions, which can also be in the form of problems or multiple-choice questions.
Assignments: Quizzes and Homework (Assignments) might be applicable. Scientific Research Ethics Rules are very important while preparing assignments. The students should be careful about citing any material used from outside sources and reference them appropriately.
Missed exams: Any student missing an exam needs to bring an official medical report to be able to take a make-up exam.
Projects: A group project with teamwork is welcome.
Attendance: Attendance requirements are announced at the beginning of the term. Students are usually expected to attend at least 70% of the classes during each term.
Objections: If the student observes a material error in his/her grade, he/she has the right to place an objection to the Faculty or the Department. The claim is examined and the student is notified about its outcome.