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

MIS 453 Business Analysis							
Course Name	**Course Code**	**Period**	**Hours**	**Application**	**Laboratory**	**Credit**	**ECTS**
Business Analysis	MIS 453	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

You will develop the ability to write detailed requirements for system changes and enhancements and ensure system changes are well tested by developing test cases and managing defect resolution along with coordinating user acceptance testing. A solid grasp of the end-to-end process of making effective decisions with data will give you an edge to facilitate enhanced decision making. In addition, you will learn leading industry software to build a solid skills portfolio in data modelling, emerging technologies, project management, and change and risk management.

Learning Outcomes

At the end of this course, you will be able to:

1. Understand and perform the importance of, and problems associated with the business analysis effort in organizations.
2. Understand and perform the tasks and techniques used to organize and coordinate business analysis efforts.
3. Understand and perform the tasks and techniques used to prepare for and conduct elicitation activities and confirm the results.
4. Understand and perform the tasks and techniques used to manage and maintain requirements and design information from inception to retirement.
5. Understand and perform the tasks and techniques used to identify the business need, address that need, and align the change strategy within the enterprise.
6. Understand and perform the tasks and techniques used to organize requirements, specify and model requirements and designs, validate and verify information, identify solution options, and estimate the potential value that could be realized.
7. Understand and perform the tasks and techniques used to assess the performance of and value delivered by a solution and to recommend improvements on increasing values.

Course Outline
Student will learn to 1. Use a variety of business analysis techniques, skills and knowledge to support new or improved innovative business processes. 2. Develop and document business processes and business models according to established business analysis practices, timelines and project goals. 3. Develop strategies to bridge gaps between requirements and existing systems using appropriate business analysis techniques and documentation to support change to a business system. 4. Assess solutions to business improvements using established benchmarks and evidence-based decision-making techniques. 5. Use a project management approach to communicate technical and business information to a variety of stakeholders.

Weekly Topics and Related Preparation Studies		
Weeks	**Topics**	**Preparation Studies**
1	**Ch-1:** Introduction	– Why Business Design? – Design Science, Design Theory and Design Artefact – The Design Orientation, Types of Design Artefact – A Simple Game of Design, Designing Business Education – A Roadmap to the Book
	Ch-2: Signs, Patterns and Systems	– Signs, Patterns, Systems, Business Modelling, Sense and Non-sense, Ontologies
	Ch-3: What Is Design?	– Great Designers and Their Lessons – Ways of Organizing, Thinking About Design – Design as an Activity, Design as Abduction – Returning to the Design Game, Techniques for Business Design
2	**Ch-4:** Designing Organization	– The Nature of Organization, Emergence – Language as Organization, Patterns of Organizing – Roles and Action, Domains of Organization – Elements of a Pattern of Organization – Socio-technical Organization – Returning to the Design Game
	Ch-5: Projects of Design	– Projects and Problems – Life Cycle of a Typical Business Analysis Project – Establishing a Business Analysis Team – Planning a Business Analysis Project – Defining Project Scope, The Control of Project Work – Methods, Techniques and Tools
3	**Ch-6:** Investigating Domains of Organization	– Business Investigation – Business Analyst as Anthropologist, Business Analysis as Discourse – Interviews, Focus Groups, Meetings and Workshops – Observation and Participation

		– Dealing with Artefacts, Triangulation – Business Visualization, Physical Prototyping
4	**Ch-7:** Engaging with Problem Situations	– Problem Setting, Systems of Complexity – Problem Situations and Stakeholders – Worldviews, Issues and Requirements – Brainstorming and Affinity Mapping – Scoping and MoSCoW Prioritization – Stakeholder Mapping, Rich Pictures
5	**Ch-8:** Making Sense of Business Activity	– Coordination, Purpose and Value – Coordination Problems, Equifinality and Design – Performance and Performance Measurement – Control, Performance Measurement – Patterns of Activity, Phrasing Activity – Roles, Tabletop Prototyping an Activity System
6	**Ch-9:** Models of Activity	– Visualizing Patterns of Activity – Comics of Activity Patterns, Activity Systems – How to Build an Inka Rope Bridge, Pattern-making – Patterns and Templates, Bridging Patterns
7	Ch-10: Making Sense of Business Information	– Communication, Communicative Acts – Identifying and Describing Things – Intent of Communication, Assertives, Directives, Commissives, Declaratives, Expressives
8	**MIDTERM EXAM**	
9	**Ch-11:** Making Sense of Information Systems	– Communication and Coordination – Analyzing Communication – Conversations for Action – Communicative Action by and with Machines – Making Sense with Communicative Patterns – Care for the Elderly
10	**Ch-12:** Models of Information	– Things of Interest, Relationships of Interest – Relationships and Constraints – Attributes of Interest – Abstraction – Visualizing Information Models – Communicative Acts and Information Models – Information Models from Communicative Practice
11	**Ch-13:** Making Sense of Business Data	– The Nature of Data, Modulation and Coding – Data Structures as Message, The Medium or Substance of Data – The Ubiquity of Data Structures, The Importance of Data Structures – Data Technology, Data Structures as Actors – Adding Data Structures to a Tabletop Prototype
12	**Ch-14:** Making Sense of Data Systems **Ch-15:** Models of Data	– Data systems, Acts of articulation, Institutional facts – Patterns of articulation – Natural, Embodied and Persistent Data – The Importance of Records – Signs of the Person, Records as Structures, Relations

		– Forming Data Structures, Data Structures and Information Classes – Visualizing Data Structures – Data Structures and Acts of Articulation
14	**Ch-16:** Understanding Digital Innovation	– Innovation, Digital Innovation, Disruptive Innovation – The Nature of Change to Organization, – Leveraging Change, – Unfreezing, Changing and Refreezing – Digging Up the Cow Paths – Stimulating and Managing Change
15	**Ch-17:** Building Digital Business Models **Ch-18:** Business Motivation, Strategy and Evaluation	– Business Models – Returning to the Design Game – AS-IS, AS-IF and TO-BE – Organization as a Cycle of Action – Online Grocery-case – Environmental Analysis, Ends, Means, Carrots and Sticks, – Evaluation – The Learning Organization
16	**FINAL EXAM**	

Textbook(s)/References/Materials:
Textbook: Beynon-Davies, P. (2021). Business analysis and design: understanding innovation in organisation. Springer Nature.
Supplementary References: Cox, K. (2021). Business Analysis, Requirements, and Project Management: A Guide for Computing Students. Auerbach Publications.
Other Materials-

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	Understand and perform the importance of, and problems associated with the business analysis effort in organizations.					X
LO2	Understand and perform the tasks and techniques used to organize and coordinate business analysis efforts.					X
LO3	Understand and perform the tasks and techniques used to prepare for and conduct elicitation activities and confirm the results.					X
LO4	Understand and perform the tasks and techniques used to manage and maintain requirements and design information from inception to retirement.					X
LO5	Understand and perform the tasks and techniques used to identify the business need, address that need, and align the change strategy within the enterprise.					X
LO6	Understand and perform the tasks and techniques used to organize requirements, specify and model requirements and designs, validate and verify information, identify solution options, and estimate the potential value that could be realized.					X
LO7	Understand and perform the tasks and techniques used to assess the performance of and value delivered by a solution and to recommend improvements on increasing values.					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**	**LO7**	
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		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	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	**3**
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		x	**4**
12	Be able to develop strategies that will		x		x		x	x	**5**

	provide a competitive advantage with his/her advanced knowledge of management strategies and management functions.								
13	Develop a business idea, commercialize the business idea, and design and manage his/her venture using entrepreneurial knowledge.	x		x		x			**5**
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	x	**5**
Total Effect									**35**

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.