

**School of Engineering and Natural Sciences / Computer Engineering (English)**

**2022 - 2023 Academic Year**

**HUMAN MACHINE INTERACTION**

**Syllabus**

<b>Course Description</b>					
<b>Name</b>	<b>Code</b>	<b>Semester</b>	<b>T+A Hour</b>	<b>Credit</b>	<b>ECTS</b>
HUMAN MACHINE INTERACTION	COE4268020	Spring Semester	3+0	3	6
<b>Prerequisites Courses</b>	NESNE TABANLI PROGRAMLAMA				
<b>Recommended Elective Courses</b>					
<b>Language of Instruction</b>	English				
<b>Course Level</b>	First Cycle (Bachelor's Degree)				
<b>Course Type</b>	Elective				
<b>Course Coordinator</b>	Prof.Dr. Selim AKYOKUŞ				
<b>Name of Lecturer(s)</b>	Assist.Prof. Muhsin Zahid UĞUR				
<b>Assistant(s)</b>					
<b>Aim</b>	This course covers the basic concepts, fundamental theories and current researches in human-computer interaction. Topics include principles, theories, methodologies, design, implementation, evaluation and research in computer interfaces. The objectives of this course are: <ul style="list-style-type: none"> <li>• to familiarize students with basic concepts of human computer interaction</li> <li>• to introduce students to theories and principles in computer interface design</li> <li>• to develop students' ability to design, conduct and analyze user studies for computer software</li> <li>• to provide students with the knowledge of the design process for user interfaces.</li> </ul>				
<b>Course Content</b>	This course contains; What is interaction design?,The Process of Interaction Design, Conceptualizing Interaction,Cognitive Aspects,Interfaces I,Interfaces II,Discovering Requirements,Data Gathering,Data Analysis, Interpretation, and Presentation,Mid-Semester Presentation,Design, Prototyping, and Construction,Data at Scale, Interaction Design in Practice,Introducing Evaluation, Evaluation Studies: From Controlled to Natural Settings,Evaluation: Inspections, Analytics, and Models,Social Interaction, Emotional Interaction and Final Presentation.				
<b>Course Learning Outcomes</b>			<b>Teaching Methods</b>	<b>Assessment Methods</b>	
Understand and apply fundamental concepts in human-computer interaction					
Design and conduct user experiments for computer interface					
Analyze and interpret data collected from user experiments					
Design computer interfaces to meet desired needs within realistic constraints					
Communicate effectively with stakeholders					
<b>Teaching Methods</b>					
<b>Assessment Methods</b>					
<b>Lecture Schedule</b>					
<b>Sequence</b>	<b>Topics</b>	<b>Preliminary Preparation</b>			
1	What is interaction design?				
2	The Process of Interaction Design, Conceptualizing Interaction				
3	Cognitive Aspects				
4	Interfaces I				
5	Interfaces II				
6	Discovering Requirements				
7	Data Gathering				
8	Data Analysis, Interpretation, and Presentation				
9	Mid-Semester Presentation				
10	Design, Prototyping, and Construction				
11	Data at Scale, Interaction Design in Practice				
12	Introducing Evaluation, Evaluation Studies: From Controlled to Natural Settings				
13	Evaluation: Inspections, Analytics, and Models				
14	Social Interaction, Emotional Interaction and Final Presentation				
<b>Evaluation Methods</b>		<b>Weight(%)</b>			
Midterm Exam		30			
General Exam		70			

<b>Resources</b>
Interaction Design - Beyond Human-Computer Interaction by Helen Sharp, Yvonne Rogers, Jennifer Preece (5th edition, 2019)Lecture notes that will be delivered during the classes.