

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

**2023 - 2024 Academic Year**

**HUMAN MACHINE INTERACTION**

**Syllabus**

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
HUMAN MACHINE INTERACTION	IND4268020	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>	
Apply fundamental concepts in human-computer interaction					
Design and conduct user experiments for computer interface					
Analyze 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>					
Sequence	Topics	Preliminary Preparation			
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			

Resources
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.