

<b>Course number and name</b>	END 113 / Int.to Industrial Eng.& Ethics
<b>Credits, contact hours, categorization of credits</b>	2 credits / 28 hours / Engineering topic
<b>Instructor or course coordinator</b>	Seçkin POLAT, Şeyda ASAN SERDAR
<b>Text book and other supplemental materials</b>	<ul style="list-style-type: none"> <li>• Kjell B. Zandin, (2001), <i>Maynard's Industrial Engineering Handbook</i>, 5th Edition, McGraw-Hill Professional</li> <li>• Salvendy, G. (Ed.). (2001). <i>Handbook of industrial engineering: technology and operations management</i>, John Wiley &amp; Sons.</li> <li>• Heizer, J., Render, B., Munson, C., &amp; Sachan, A. (2017). <i>Operations Management: Sustainability and Supply Chain Management</i>, 12/e. Pearson Education.</li> <li>• Tanyaş, M., (2000), “<i>Endüstri Mühendisliğine Giriş</i>”, İrfan Publisher.</li> <li>• Lecture Notes</li> </ul>

<b>Course information</b>	
<b>Content</b>	Definition of Industrial Engineering (IE), the history and evolution of IE, Industrial revolutions, IE as a profession, basic IE terminology, basic IE tools, methods, and approaches.
<b>Prerequisites</b>	None
<b>Type</b>	Required

<b>Course learning outcomes</b>	
Students who pass the course will:	
<ol style="list-style-type: none"> <li>I. have knowledge about the basic IE subjects and areas in which Industrial Engineers work.</li> <li>II. Identify and define the basic terminology and concepts of IE.</li> <li>III. Understand the importance of acquiring the knowledge and skills that are essential for an IE now and in the future. (e.g. problem solving, planning a project, working with a team, communicating effectively)</li> <li>IV. Identify standards of professionalism and ethical behavior in IE and apply these standards successfully to ethical dilemmas.</li> </ol>	

<b>Student outcomes</b>	<b>Level of contribution</b>
SO1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.	Partial
SO2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.	Not applicable
SO3. An ability to communicate effectively with a range of audiences.	Little
SO4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.	High
SO5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.	Not applicable
SO6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.	Not applicable
SO7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.	Little

<b>Week</b>	<b>Topics</b>	<b>Learning outcome(s)</b>
1	Concept and definition of Industrial Engineering	I
2	History and evolution of Industrial Engineering	I
3	Industrial Engineering Ethics	IV
4	Systems approach	II, III
5	IE tools, methods, and approaches	II, III
6	IE tools, methods, and approaches	II, III
7	IE tools, methods, and approaches	II, III
8	IE tools, methods, and approaches	II, III
9	IE tools, methods, and approaches	II, III
10	IE tools, methods, and approaches	II, III
11	IE tools, methods, and approaches	II, III
12	IE tools, methods, and approaches	II, III
13	IE tools, methods, and approaches	II, III
14	IE tools, methods, and approaches	II, III