

<b>Course number and name</b>	END 319 / Cost Management
<b>Credits, contact hours, categorization of credits</b>	3 credits / 42 hours / Engineering topic
<b>Instructor or course coordinator</b>	Tufan KOÇ
<b>Text book and other supplemental materials</b>	<ul style="list-style-type: none"> <li>• Strategic Cost Management: The New Tool for Competitive Advantage. S. Govindarajan. Free Press. 2008.</li> <li>• Essentials of Cost Management. Catherine Stenzel, Joe Stenzel Wiley; 2002.</li> <li>• Handbook of Cost Management. Roman L. Weil, Michael W. Maher. Wiley; 2nd edition. 2005.</li> </ul>

<b>Course information</b>	
<b>Content</b>	To teach main concepts of cost management, to provide competency in understanding the impact of manufacturing costs on firm performance, to provide competency in defining engineering factors that influence financial performance and performing necessary adjustments.
<b>Prerequisites</b>	None
<b>Type</b>	Selected elective

<b>Course learning outcomes</b>
<p>Students who pass the course will:</p> <ol style="list-style-type: none"> <li>I. Recognize cost items used in applications</li> <li>II. Understand the interactions between cost items</li> <li>III. Determine performance of organizations</li> <li>IV. Define simple cost problems and develop solutions</li> <li>V. Understand relationship between operation costs and firm performance</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.	Little
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.	Partial
SO3. An ability to communicate effectively with a range of audiences.	Not applicable
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.	Partial
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.	Partial
SO6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.	Partial
SO7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.	Partial

<b>Week</b>	<b>Topics</b>	<b>Learning outcome(s)</b>
1	Cost concept, terms and terminology	I
2	Choosing a source of financing	IV
3	Management of working capital	I
4	Management of working capital	I
5	Financial performance measurement	I, II, III
6	Return on investment	II, III
7	Return on investment	II, III
8	Responsibility centers	IV, V
9	Responsibility centers	IV, V
10	Budgeting	II, III
11	Break-even analysis	II
12	Activity-based costing	V
13	Quality costs	IV, V
14	Quality costs	IV, V