

<b>Course name</b>	<b>ECE 48800 Senior Design II</b>
<b>Credit and contact hours</b>	(2 cr.) Class 2
<b>Course coordinator's name</b>	Seemein Shayesteh
<b>Textbook</b>	None
<b>Course information</b>	<p>ECE 48800 Senior Design II (2 cr.) P: ECE 48700. A real-life experience in engineering problem solving in a group setting from identification, planning and execution to professional-quality written and oral presentations. This is the second semester of a two semester course sequence.</p> <p><b>Prerequisites/ Co-Requisite</b> Senior standing and intent to graduate within 1 semester.</p> <p><b>Required, Elective, or Selected Elective:</b> EE Required, CE Required</p>
<b>Goals for the course</b>	<p>Upon successful completion of the course, students should be able to</p> <ol style="list-style-type: none"> <li>1. Identify and formulate the design problem, including bringing precision to the problem statement through a requirements specification. [1]</li> <li>2. Use library resources and Internet resources to find information necessary for the project. [7]</li> <li>3. Use critical thinking in its design process. [1]</li> <li>4. Use creative approaches when necessary to obtain project objectives. [2]</li> <li>5. Conduct design using an organized design process, including planning, literature search, requirements specification, consideration of alternative approaches, determination of strategies, and design reviews. [2]</li> <li>6. Conduct design using design principles. [1, 2]</li> <li>7. Apply engineering principles, mathematics, and science in engineering design, not including methods, tools, and techniques. [1]</li> <li>8. Apply technical knowledge to design, including methods, tools, and techniques. [1, 2, 6]</li> <li>9. Analyze and interpret data. [6]</li> <li>10. Determine ways to test a design to determine its functionality (success of the design). [6]</li> <li>11. Value quality workmanship into the project, including neatness of the assemblies, neatness of the computer screen displays, and quality of the fit and finish, if applicable. [2]</li> <li>12. Function effectively on a multi-disciplinary team through mutual support, consensus seeking, cooperation, and sharing responsibility. [5]</li> </ol>

	<p>13. Write a project report, adhering to the specified format using an appropriate writing style, grammar, and spelling. [3]</p> <p>14. Make an oral presentation using effective visual aids. [3]</p>
<b>List of topics to be covered</b>	<ol style="list-style-type: none"> <li>1. Introduction (use of labs, project notebooks, teamwork, etc.) Groups meet</li> <li>2. Work in groups</li> <li>3. Work in groups</li> <li>4. Work in groups</li> <li>5. Oral progress report(notebooks due)</li> <li>6. Work in groups</li> <li>7. Work in groups</li> <li>8. Work in groups</li> <li>9. Work in groups</li> <li>10. Oral progress report(notebooks due)</li> <li>11. Work in groups</li> <li>12. Work in groups</li> <li>13. Work in groups</li> <li>14. Draft final report due</li> <li>15. Final oral presentation and poster presentation (posters due) (notebooks due)</li> </ol>
<b>Syllabi approved by</b>	Seemein Shayesteh
<b>Date of approval</b>	06/23/2022