

School of Management, Engineering and Technology  
Department of Electrical Engineering and Renewable Energy  
REE 459: Senior Project III

Catalogue Description (2009/2010):	Completion of the project proposed in REE 339 and designed in REE 449. Documentation with specifications, functional description, calculations, test results, schematics, graphs, flowcharts, parts lists, diagrams and photographs become part of the project final report. The student defends their project before a review panel.		
Hours/Credits: (Lecture-Lab-Total)	(0-6-2)		
Class Schedule:	Scheduled meetings with faculty advisor, one term		
Lab Schedule:	Access to senior project room, faculty advising, one term		
Prerequisites:	REE 449		
Required Text:	none		
Reference Text:	none		
Course Coordinator:	Robert Bass, Ph.D.		
Regular Instructors:	Mateo Aboy, Robert Bass, Slobodan Petrovic, Frank Rytkonen, Thomas White, James Zipay		
Course Objectives:	<p>During the term, students are expected to:</p> <ul style="list-style-type: none"> <li>• Implement the plan for testing and verification of the project.</li> <li>• Implement the plan for economic analysis of the project.</li> <li>• Finish Implementation of the project design.</li> <li>• Record final design calculations, analyses, testing and validation.</li> <li>• Integrate the chapters from the project proposal and the detailed project description chapter into the senior project document.</li> <li>• Complete the detailed senior project document.</li> <li>• Present the completed senior project at the OIT Senior Project Symposium</li> </ul>		
Topics Covered:	Dependant on senior project topic		
Relevant Program Outcomes:	<p>(a) an ability to apply knowledge of mathematics, science, and engineering  (b) an ability to design and conduct experiments, as well as to analyze and interpret data  (c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability  (d) an ability to function on multi-disciplinary teams  (e) an ability to identify, formulate, and solve engineering problems  (f) an understanding of professional and ethical responsibility  (g) an ability to communicate effectively  (h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context  (i) a recognition of the need for, and an ability to engage in life-long learning  (j) a knowledge of contemporary issues  (k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice  (l) an ability to apply the fundamentals of energy conversion and applications  (m) an understanding of the obligations for implementing sustainable engineering solutions  (n) an appreciation for the influence of energy in the history of modern societies</p>		
Required or Elective:	Required		
Criterion 5:	Engineering Topics		
Prepared By:	Robert Bass, Ph.D.	Updated:	April 26, 2010