

Fall 2015

ENEE 3092

Parviz Rastgoufard
University of New Orleans

Follow this and additional works at: <https://scholarworks.uno.edu/syllabi>

This is an older syllabus and should not be used as a substitute for the syllabus for a current semester course.

Recommended Citation

Rastgoufard, Parviz, "ENEE 3092" (2015). *University of New Orleans Syllabi*. Paper 367.
<https://scholarworks.uno.edu/syllabi/367>

This Syllabus is brought to you for free and open access by ScholarWorks@UNO. It has been accepted for inclusion in University of New Orleans Syllabi by an authorized administrator of ScholarWorks@UNO. For more information, please contact scholarworks@uno.edu.

Exhibit 1: Syllabus

*Department of Electrical Engineering
The University of New Orleans*

ENEE 3092: SENIOR DESIGN II

Fall 2015

Syllabus Revision 1: 19, August 2015

ENEE 3092 COURSE DESCRIPTION: SENIOR DESIGN II

3 credits.

The purpose of ENEE 3092 is to familiarize students with designing and completing their selected electrical engineering projects. The course is a continuation of a one-credit course ENEE 3091 in which students participate in creating their team, selecting their project, and formally writing and defending their project proposal for study in ENEE 3092. In ENEE 3092, students execute tasks for designing, managing, and completing a “working project” by the end of the semester. In addition to design and project management, we shall emphasize on two new aspects of the course; ***entrepreneurship*** and ***undergraduate research***. Students shall research technical and economical viability of their project and shall determine the prospect of converting their “Project to Product”.

PREREQUISITES: ENEE 3091 Senior Design I. Please read the following College of Engineering Guideline: *“If you do not have the pre-requisites for this course, the course instructor will not grade any of your submitted work and you will receive a grade of F”*.

TEXTBOOKS AND OTHER MATERIAL:

There is no text book assigned to the course, however, the instructor may assign reading material for study. Reading of the assigned material is mandatory and students shall be prepared for testing as needed. We may refer to topics and books such as “First Things First” and “The 7 Habits of Highly Successful People” by Stephen R. Covey as needed. Students will be assigned to research elements of entrepreneurship and establishment of small business.

CLASS SCHEDULE:

Because the class requires laboratory space and equipment and preparation for professional oral and written presentations, we will devote Room EN707 for the laboratory work and the designated classroom in College of Engineering on Monday and Wednesday for lectures, general meetings, and presentations as determined throughout the semester. There are times that the instructor shall meet the entire class or a specific team as needed with ample advance time for planning. It is necessary that each team bring their own laptop for power point presentation to the individual team or class meetings.

INSTRUCTOR: Parviz Rastgoufard, Ph.D.; *Professor*
Entergy Endowed Chair for Power Systems Engineering

E-mail: prastgou@uno.edu

Phone: 280-5524

Office: EN834

Office Hours: 1:30-3:30 PM T&TR; 3:00-5:00 PM Wednesday

Occasionally, I may need to attend a meeting during posted office hours. In these cases, I will make other meeting times for students as needed.

STUDENT LEARNING OBJECTIVES:

After successfully completing the course students shall be able to:

- Design, test, calibrate, and demonstrate their project
- Work effectively as a member of a team and be able to defend their contribution to the team
- Assess and adhere to performance and productivity schedules
- Acquire and integrate subsystem and components in a timely and efficient manner
- Understand and implement testing and calibration methods and techniques
- Present and explain technical and administrative principles in committee presentations
- Identify and assess the value of their “Project” as a “Product” in the market (Project to Product Assessment)
- Develop a Business Plan for acquiring funding for their “Product”
- Write a four-page technical paper highlighting the findings of their project in IEEE format
- Prepare and submit, progress reports, Business Plan, 4-page Technical Paper, and Project Technical Report on project achievements

COURSE TOPICS:

TENTATIVE WEEKLY SCHEDULE:

Tentative topics and assignments covered in each week- **dated by Monday of the week**- are outlined below. The specific assignments and topics will be discussed in class and in the Laboratory Room 707 as we meet. The following is a *tentative schedule* that will be adjusted as needed during the semester as we proceed with completion of projects.

Week 01 (AUG 17): Review of Course Objectives, Team Assignments, First contacts
Week 02 (AUG 24): Group Presentations from Spring semester 2014

Week 03 (AUG 31): Laboratory Meeting and Assignments

Week 04 (SEP 07): **Labor Day** Holiday for Monday Class, Laboratory Meetings and Assignments

Week 05 (SEP 14): Preparing Business Plan for your “Product”

Week 06 (SEP 21): Review and Progress Report I due excluding Business Plan

Week 07 (SEP 28): Speaker 1, entrepreneurship or Lab meeting if needed

Week 08 (OCT 05): Mid semester examination, Progress Business Plan 1

Week 09 (OCT 12): Mid-term Presentations, Mid-Term Display and Demonstration of Projects and Grades, **Mid-semester Break: OCT 15-16**

Week 10 (OCT 19): Speaker 2, intellectual property or Lab meeting as needed
Week 11 (OCT 26): Lab Meetings and Assignments

Week 12 (NOV 02): Progress Report III and Final Business Plan

Week 13 (NOV 09): Project Completion, Start of Documentation

Week 14 (NOV 16): 4-page Paper Draft 1, Technical Report Draft 1

Week 15 (NOV 23): Preparation for Senior Design Symposium Day on Friday
December 04, 2015

Week 16 (NOV 30): 3-Page Executive Summary and Final 4-Page Paper

Week 16 (NOV 30): Final Presentations and **EE Symposium Day** presentations on
Friday Dec 04, Final Technical Report due; Presentation to
Judges for Final Grade.

TIME BUDGET:

You need to budget your time to complete all tasks to include but not limited to: reviewing and completing your design, purchasing of parts, completing your individual responsibilities as a member of your team, integrating all functions designated to each member of the team, debugging your design, and submitting your progress reports, 4-page paper, and final technical report. Note that each team may be asked to create a web-site to display the team's work for the instructor to access, to grade, and to provide feedback to the corresponding teams.

PROJECT BUDGET:

The EE Department may provide up to \$200 per team for purchasing of parts. Students are mainly responsible for the cost of their project. In evaluating the total cost of your project, include labor cost by assigning \$60/hour for yourself and \$180/hour for your advisor's time. Also, we will determine a dollar value for the lab space and equipment in class- all teams will use this consistent value in determining the total cost of their project.

FORMATS:

Formats for Progress Reports, 4-Page Paper, and Final Technical Report shall be distributed in class prior to corresponding due dates. Format for PPP for the mid-term and Senior Symposium Day shall be discussed in class according to the Tentative Schedule (above).

GRADING:

Class and Lab Participations (Individual)	05%
Progress Reports (Individual)	10%
Business Plan (one per team)	10%
4-Page Paper (Individual)	15%
Mid-term Presentation (Team /Individual)	10%
Final Presentation (team effort)	25%
Technical Report Executive Summary (Individual)	10%

Project Demonstration and Function (team effort)**15%**

Letter grades will be assigned according to the guidelines:

A: 90-100, B: 80-89, C: 70-79, D: 60-69, F: <60

Mid term and Final includes both individual and team grades. Note that approximately 45% of the Grade is for your team effort and 55% for your individual work.

ATTENDANCE:

Attendance in all labs and classes are required. I strongly recommend attending the class when we have an outside speaker. If for any reason you are unable to attend the class or the instructor's designated lab period, send me an email. Note the **direct** 10% of the grade allocated to your participation and the **indirect** percentages that may impact your grade when an on-going task is graded in a specific period while you are not attending that period.

STUDENT CONDUCT: Please respect your classmates and your instructor by avoiding disruptive behavior during class, such as habitually coming to class late, maintain steady conversation with neighbors during lecture, and making/taking calls on your cell phone.

Academic Integrity: Academic integrity is fundamental to the process of learning and evaluating academic performance. Academic dishonesty will not be tolerated. Academic dishonesty includes, but is not limited to, the following: cheating, plagiarism, tampering with academic records and examinations, falsifying identity, and being an accessory to acts of academic dishonesty. Refer to the Student Code of Conduct for further information. The Code is available online at <http://www.studentaffairs.uno.edu>.

Accommodations for Students with Disabilities: It is University policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities should contact the Office of Disability Services as well as their instructors to discuss their individual needs for accommodations. For more information, please go to <http://www.ods.uno.edu>.

RELATIONSHIP OF THE COURSE TO PROGRAM OUTCOMES

X	a. Ability to apply knowledge of mathematics, science, and engineering	X	g. Ability to communicate effectively
X	b. Ability to design and conduct experiments, analyze and interpret data	X	h. Ability to understand the impact of engineering solutions in a global and societal context
X	c. Ability to design a system, component, or process to meet desired needs	X	i. Ability to recognize the need for, and ability to engage in life-long learning
	d. Ability to function on multi-disciplinary teams	X	j. Ability to acknowledge contemporary issues
X	e. Ability to identify, formulate, and solve engineering problems	X	k. Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
X	f. Ability for understanding of professional and ethical responsibility		

Created by: Dr. Parviz Rastgoufard, August 19, 2015.