

Syllabus for EE 491 Senior Project I Fall 2016-2017

Instructor:	Prof. Dr. Erdem YAZGAN	
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Time Schedule:	Wednesday (09.00 – 12.50), Friday (13.00 – 13.50)
Office Hours:	Monday (15.00 - 16.00), Tuesday (15.00 - 16.00) (or by appointment)
Classroom:	A311-L, A422

Course Code & Number	EE 491	Course Title	Senior Project I
Type of Course	☑ Compulsory  □ Elective	Semester	$\blacksquare$ Fall $\square$ Spring $\square$ Summer
Level of Course	BSc	Year of Study	Senior
Course Credit Hours / ECTS	(1+0+4) 3 / 7 ECTS	Pre-requisite / Co-requisite	Pre-requisite: EE 202 and at least five EE 3XX courses Co-requisite: None
Mode of Delivery	☑ Face-to-face □ Distance learning	Language of Instruction	⊠ English □ Turkish
Course Coordinator	Prof. Dr. Erdem Yazgan Phone: 0312-5850027 E-mail: <u>erdem.yazgan@tedu.edu.tr</u>		
Computer Usage Textbook	Related Application and Software Books.		
Supplementary Reading	Application Notes		
Module and Instructor Evaluation Date	Evaluation will be held on the last day of the class		

Course Catalog Description	Design, simulation and implementation of an electrical or electronic circuit, system or software performing a specified task in electrical engineering. Building blocks of project design: project management, design tools, simulation standards, quality concepts, ethics, etc.	
Course Objectives	This course is the first part of a two-semester course program (EE 491 and EE 4 aims to provide senior students an integrative real-life experience to effectively simulate, implement and test electrical or electronic systems. In EE 491, student an engineering problem and develop a conceptual design, as well as gain a understanding of project management methodology. In EE 492, students realize a from conceptual design to working system. A student team supervised by faculty develops a proposal to produce a solution for a real-life problem, and obtains ex in problem definition, solving, modeling, simulation, and cost analysis. Studen required to submit periodic reports and oral presentations to demonstrate th communication skills. Faculty members and/or invited speakers from industry/a teach the essential components of project management (such as project manage design tools, simulation standards, quality concepts, ethics, etc) through weekly lectures.	
Course Learning Outcomes (LO)	<ul> <li>Having successfully completed this course, students will be able to:</li> <li>LO-1:. Apply the project management methodology</li> <li>LO-2:. Propose a complex real-life project using multiple</li> <li>areas of knowledge.</li> <li>LO-3:. Identify, solve, simulate and design an engineering problem</li> <li>LO-4:. Demonstrate written communication skills at a professional level by</li> <li>preparing reports.</li> </ul>	

LO-5: Demonstrate oral communication skills at a professional level by giving a presentation to the faculty.
LO-6:. Work effectively in a teamwork
LO-7: Incorporate critical, analytical, strategic and creative thinking.
LO-8: Gain professional discipline in time management and organizational
skills
LO-9: Recognize global and societal issues to develop sustainable engineering
solutions
LO-10: Interact with practicing professionals in multiple disciplines.

TENTATIVE COURSE OUTLINE			
Week	Topics	Learning Outcome (LO)	
1	Project Study	1	
2	Project Study	1	
3	Project Study	2	
4	Project Study	4	
5	Project Study	3	
6	Project Study	5	
7	Project Study	6	
8	Project Study	7	
9	Project Study	7	
10	Project Study	8	
11	Project Study	9	
12	Project Study	10	
13	Project Study	10	
14	Student project	10	
15	<b>FINAL WEEK (date and time to be announced later).</b> Student project presentations		

### **COURSE ASSIGNMENTS**

## A. Project Reports [40%]

There will be 2 semester project reports as in the form of written or oral presentations.

## B. Final Report[60%]

There will be a Final Project Report.

## C. Quizzes [0 %]

D. Written a	assignments	[0%]
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# E. Written/Oral project [0%]

F. Extra bonus credit [%]

COURSE ASSESSMENTS & LEARNING OUTCOMES MATRIX			
Assessment Methods	Course Learning Outcomes		
Written project assignments	LO # 110		
Design Discussions	LO # 110		
Written/Oral project	LO # 110		
1 <sup>st</sup> Project Report	LO # 15		
2nd Project Report	LO # 610		
Final Project Report	LO # 110		

<b>CONTRIBUTION OF THE MODULE TO PROGRAM OUTCOMES</b>			
Program Outcomes EE			
1	$\checkmark$		

2		
3	$\checkmark$	
4	$\checkmark$	
5	$\checkmark$	

Teaching Methods & Learning Activities	<ul> <li>☑ Telling/Explaining</li> <li>☑ Questioning</li> <li>☑ Reading</li> <li>☑ Demonstrating</li> <li>☑ Problem Solving</li> </ul>	<ul> <li>☑ Collaborating</li> <li>☑ Oral Presentations/Reports</li> <li>☑ Web Searching</li> <li>☑ Other(s): Homework and MATLAB assignments</li> </ul>
Assessment Methods (Formal & Informal)	<ul> <li>☑ Test and discussions</li> <li>☑ Presentations</li> <li>☑ Performance Project</li> <li>☑ Written ☑ Oral</li> </ul>	<ul> <li>☑ Presentation (Oral)</li> <li>☑ Other(s): Homework and Project. assignments</li> </ul>
<b>Student</b> <b>Workload</b> (Total 140 Hrs)	<ul> <li>☑ Lectures 14 hrs</li> <li>☑ Course Readings 40 hrs</li> <li>☑ Hands on works and Debate</li> <li> 53 hrs</li> </ul>	<ul> <li>☑ Report on a Topic</li></ul>

## **COURSE POLICIES**

#### I. Attendance

- Regular class attendance is expected for all students at the University. You are not required but advised to attend all classes.
- You will be rewarded with 3% extra *bonus* credits, if your attendance rate is at least 90% at the end of the semester. This means that you may miss only 4 single-hours to get this bonus.
- Please sign the attendance sheet when you come to the class. Any false signatures will result in zero participation grades for all parties involved.
- Please send your professor a brief e-mail to explain your absence in advance.
- Your absence will not reduce your attendance rate *if and only if* you have a legitimate reason for missing a class (such as illness, death in family, a traffic accident, etc.). In case of an illness or emergency, you must supply a formal documentation that supports your claim.
- Classes start on the hour. Please be respectful of your classmates by being on time.
- All electronic equipment should be turned off and kept out of sight before lecture starts.

#### II. Make-up Exams

Make-ups for Project reports 1 and 2 will be available *if and only if* you have a legitimate reason for missing the exam (such as illness, death in family, a traffic accident, etc.). In case of an illness or emergency, you must supply a formal documentation that supports your claim.

#### **III. Late Submission Policy**

Late submissions will not be graded. There will be *no* make-up for design assignments. Missed assignments and reports will result in a grade of zero (0).

#### **IV. Participation**

In their book, The Adult Student's Guide to Survival & Success, Al Siebert and Mary Karr suggest that the most effective learning technique of all is to study by *asking and answering questions*. Develop the habit

of reading textbooks, taking lecture notes, and studying by asking and answering questions. When you do this, you save many hours of studying and have time to spend with your family or friends.

There are several ways to go about asking and answering questions.

- When studying on your own, write questions that occur to you while you're reading and then go back and find the answers.
- If you're part of a study group, make a list of questions to ask the group.
- In the classroom, participate fully by asking questions and answering the ones posed by your instructor.

Curiosity is one of the cornerstones of learning. Be curious. Ask questions. Learn faster.

## V. Cheating & Plagiarism

Collaboration is strongly encouraged; however, the work you hand in must be solely your own. Cheating and plagiarism are very serious offenses and will be penalized accordingly by the university disciplinary committee.

Cheating has a very broad description which can be summarized as "acting dishonestly". Some of the things that can be considered as cheating are the following:

- Copying answers on exams, homeworks and lab works,
- Using prohibited material on exams,
- Lying to gain any type of advantage in class,
- Providing false, modified or forged data in a report,
- Plagiarising (see below),
- Modifying graded material to be re-graded,
- Causing harm to colleagues by distributing false information about an exam, homework or lab.

All of the following are considered plagiarism:

- Turning in someone else's work as your own,
- Copying words or ideas from someone else without giving credit,
- Failing to put a quotation in quotation marks,
- Giving incorrect information about the source of a quotation,
- Changing words but copying the sentence structure of a source without giving credit,

- Copying so many words or ideas from a source that it makes up the majority of your work, whether you give credit or not.

(www.plagiarism.org)

## VI. Disability Support

If you have a disabling condition which may interfere with your ability to successfully complete this course, please contact Dr. Aslı Bugay (email: asli.bugay@tedu.edu.tr) or Dr. Tolga İnan (email: tolga.inan@tedu.edu.tr). For more information please see Handbook for Registered Students.

\*\*\* GOOD LUCK \*\*\*