

COURSE INFORMATION					
Course Title	Code	Semester	L+P Hour	Credits	ECTS
Research Seminar	ESYE590	1	2	0	2

<b>Prerequisites</b>	None
----------------------	------

<b>Language of Instruction</b>	English
<b>Course Level</b>	M. Sc.
<b>Course Type</b>	Core
<b>Course Coordinator</b>	Prof. Dr. Melek BASAK
<b>Instructors</b>	
<b>Assistants</b>	Duygun Fatih DEMİREL, Eylül Damla GÖNÜL
<b>Goals</b>	<p>The purpose of this course is to develop abilities of Systems Engineering graduate students in conducting and representing research. Further, by receiving feedback from interested parts may assist students in considering aspects they might not otherwise have addressed.</p> <p>Sharing material increases the chance of enlarging and deepening the focused area of research and may cause to form new working groups /teams.</p> <p>The Seminar also serves as a training space for preparation and presentation of papers at academic conferences.</p>
<b>Content</b>	This course consists of seminars which will be presented once a week, on a Mondays. The presentation is followed by a question and answer period where the audience can ask any questions they might have that were not answered during the seminar.

Course Learning Outcomes	Program Learning Outcomes	Teaching Methods	Assessment Methods
1) Students carry out literature survey and trail the recent improvements related to their research topic.	1	2,4	D
2) Students improve their report writing abilities.	8	2,4	D
3) Students ability to define the problem, possible solution approaches and structuring the obtained results using proper mathematical language where necessary will be achieved and enhanced.	5	2,4	D
4) Students represent their research topic and contributed work .	8	2,4	D
5) Students' research topics be expanded to cover social, ethical, environmental and other issues.	11	2,4	D
6) Students integrate current real world problems and their academic work.	8	2,4	D

<b>Teaching Methods:</b>	1: Lecture, 2: Question-Answer, 3: Lab, 4: Case-study
<b>Assessment Methods:</b>	A: Testing, B: Experiment, C: Homework, D: Project

COURSE CONTENT		
Week	Topics	Study Materials

MATERIAL SHARING
------------------

<b>Documents</b>	
<b>Assignments</b>	
<b>Exams</b>	

<b>ASSESSMENT</b>			
	<b>IN-TERM STUDIES</b>	<b>NUMBER</b>	<b>PERCENTAGE</b>
Advisor meetings			20
Presentation		1	80
Attendance (at least 11 weeks)		13	
	<b>Total</b>		<b>100</b>

<b>COURSE CATEGORY</b>	Expertise/Field Courses
------------------------	-------------------------

<b>COURSE'S CONTRIBUTION TO PROGRAM</b>						
No	Program Learning Outcomes	Contribution				
		1	2	3	4	5
1	Ability to reach knowledge in breadth and depth through scientific research in Systems Engineering field; to have extensive knowledge about current techniques and procedures together with their constraints.					<b>X</b>
2	Ability to complement and apply knowledge by scientific methods utilizing limited or missing data; to use knowledge in different disciplines effectively by blending them.					
3	Ability to formulate Systems Engineering problems; to develop novel and original ideas and procedures for their solutions and to use innovative procedures in solutions.					
4	Awareness of new and developing applications in Systems Engineering; ability to investigate and learn these applications when required.					
5	Ability to design and apply analytical, and modeling and experimental based research; to solve and interpret complex situations encountered in this process.					<b>X</b>
6	Ability to lead multi-disciplinary teams; to develop solution approaches in complicated situations and to take responsibility.					<b>X</b>
7	Ability to develop novel and/or original ideas and methods; to develop innovative solutions for the design of systems, parts or the processes.					
8	Ability to communicate orally or in writing the process and the results of Systems Engineering studies systematically and openly in national or international platforms.					<b>X</b>
9	Ability to master a foreign language (English) at the European Language Portfolio B2 General Level to communicate orally or in writing.					
10	Ability to recognize social, scientific and ethical values in the process of					

	collection, interpretation and publishing of data, and in all professional activities.							
11	Ability to visualize social and environmental dimensions of Systems Engineering applications and to observe these dimensions in professional practice.							X
12	Ability to develop appropriate methodology and procedures for the modeling, improvement, control and design of complex systems for a specified target.							

**ECTS ALLOCATED BASED ON STUDENT WORKLOAD BY THE COURSE DESCRIPTION**

Activities	Quantity	Duration (Hour)	Total Workload (Hour)
Course Duration (Excluding the exam weeks: 13x Total course hours)	13	1-2	19.5
Hours for off-the-classroom study (Pre-study, practice)	13	2	26
Midterm examination	0	0	0
Project	0	0	0
Final examination	0	0	0
Presentation	1	1	1
<b>Total Work Load</b>			46.5
<b>Total Work Load / 25 (h)</b>			1.9
<b>ECTS Credit of the Course</b>			2