

## GAU, Faculty of Engineering

<b>Course Unit Title</b>	Industrial Engineering Project	
<b>Course Unit Code</b>	IE401	
<b>Type of Course Unit</b>	Compulsory, Industrial Engineering Students	
<b>Level of Course Unit</b>	4th Year, Core, Undergraduate(BSc)	
<b>National Credits</b>	3	
<b>Number of ECTS Credits Allocated</b>	6 ECTS	
<b>Theoretical (hour/week)</b>	3	
<b>Practice (hour/week)</b>	-	
<b>Laboratory (hour/week)</b>	-	
<b>Year of Study</b>	4	
<b>Semester when the course unit is delivered</b>	7	
<b>Mode of Delivery</b>	Face to Face, E-learning activities	
<b>Language of Instruction</b>	English	
<b>Prerequisites and co-requisites</b>	-	
<b>Recommended Optional Programme Components</b>	Departmental core courses should be completed	
<b>Objectives of the Course:</b>		
1) To provide the student with the ability to analyze the problem/system with which he/she is dealing and to develop solution ideas considering theoretical knowledge		
2) To provide a useful experience through a self study to take the first step to his/her new career which will start after graduation		
3) The student will communicate his/her study efficiently, verbal and written, so he/she will learn to express himself/herself better		
<b>Learning Outcomes</b>		
When this course has been completed the student should be able to		Assesment.
1	➤ Formulate and analyze a problem by examining the current status problem dealt with, considering theoretical knowledge	3,4
2	➤ Develop applicable suggestions and/or solution methods for the	3,4
3	➤ Gain the ability to implement a solution method to an existing problem and will be able to evaluate the results	3,4
4	➤ Learn to express himself/herself by reporting and presenting the work	3,4
5	➤ Learn to defend the idea that underlines the results of the study	3,4
Assessment Methods: 1. Written Exam, 2. Assignment, 3. Project/Report, 4. Presentation, 5 Lab. Work		
<b>Course's Contribution to Program</b>		
		CL
1	Ability to understand and apply knowledge of mathematics, science, and engineering	3
2	Ability to design and conduct experiments as well as to analyze and interpret data	4
3	Ability to work in multidisciplinary teams while exhibiting professional responsibility and ethical conduct	3
4	Ability to apply systems thinking in problem solving and system design	4
5	Knowledge of contemporary issues while continuing to engage in lifelong learning	4
6	Ability to use the techniques, skills and modern engineering tools necessary for engineering practice	4
7	Ability to express their ideas and findings, in written and oral form	5
8	Ability to design and integrate systems, components or processes to meet desired needs within realistic constraints	4
9	Ability to approach engineering problems and effects of their possible solutions within a well structured, ethically responsible and professional manner	5
10	Ability to design systems, processes or products by applying modern methods of work study, ergonomics, production systems and simulation while fulfilling requirements under realistic conditions	5
11	Ability to plan and improve system performance using production planning, quality planning and control, information system design and project planning techniques	5
CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5: Very High)		

<b>Course Contents</b>			
<b>Week</b>	<b>Topics</b>		<b>Exams</b>
1		Proposal submission	
2			
3			
4			
5			
6			
7			
8		Midterm Presentation, midterm report submission	
9			
10			
11			
12			
13			
14		Final Presentation	
15		Project Report Submission	

### Recommended Sources

**Textbook:** Hillier F. S., Lieberman G. J. 'Introduction to Operations Research ', 9e, McGraw-Hill, Inc., 2009

### Supplementary Material(s):

Taylor. B. W., 'Introduction to Management Science', 10e, Prentice Hall, 2009.

Render B. Et. Al., 'Quantitative Analysis for Management', 11e, Prentice Hall, 2011.

### Assessment

Project Proposal	5%	
Progress Report (Written)	20%	
Evaluation Jury (Oral)	40%	
Project Supervisor's Assessment	25%	
Final Report (Written)	10%	
Total	100%	

### ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class (including the Exam week)	15	3	45
Labs and Tutorials	-	-	-
Assignments	-	-	-
Project/Presentation/Report Writing	15	5	75
E-learning Activities	10	1	10
Quizzes	-	-	-
Midterm Examination	-	-	-
Final Examination	-	-	-
Self Study	14	3	42
Total Workload			172
Total Workload/30 (h)			5.73
ECTS Credit of the Course			6