GAU, Faculty of Engineering

Course Unit Title	Graduation Project
Course Unit Code	IE 402
Type of Course Unit	Compulsory, Industrial Engineering Students
Level of Course Unit	4th Year, Core, Undergraduate(BSc)
National Credits	3
Number of ECTS Credits Allocated	6 ECTS
Theoretical (hour/week)	3
Practice (hour/week)	-
Laboratory (hour/week)	-
Year of Study	4
Semester when the course unit is delivered	8
Mode of Delivery	Face to Face, E-learning activities
Language of Instruction	English
Prerequisities and co-requisities	IE 401
Recommended Optional Programme Components	Departmental core courses should be completed

Objectives of the Course:

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

Learning Outcomes

When this course has been completed the student should be able to		Assesment.
1	➢ As a continuation of the Industrial Engineering Project, formulate and analyze a new problem/system by examining the current status of problem dealt with, considering theoretical knowledge	3,4
2	➢ Develop applicable suggestions and/or solution methods for the problem formulated	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

Course's Contribution to Program

		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)

Course Contents

Week	Topics		Exams
1		Proposal submission	
2			
3			
4			
5			
6			
7			
8		Midterm report submission	
9			
10			
11			
12			
13			
14		Final Presentation	
15		Project Report Submission	

Recommended Sources

Textbook: Supplementary Material(s):
Hillier F. S., Lieberman G. J. 'Introduction to Operations Research ', 9e, McGraw-Hill, Inc., 2009
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	2	2	4
Quizzes	-	-	-
Midterm Examination	-	-	-
Final Examination	-	-	-
Self Study	14	4	56
Total Workload			186
Total Workload/30 (h)			6.2
ECTS Credit of the Course			6