

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	
Prerequisites and co-requisites	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