



Course Specifications

Program(s) on which this course is given:	Aerospace Engineering
Department offering the program:	Aerospace Engineering
Department offering the course:	Aerospace Engineering
Academic Level:	M.Sc.
Date	
Semester (based on final exam timing)	<input type="checkbox"/> Fall <input checked="" type="checkbox"/> Spring

A- Basic Information

1. Title:	Operation Research (2)		Code:	AER647			
2. Units/Credit hours per week:	Lectures	2	Tutorial	1	Practical	Total	3

B- Professional Information

1. Course description:	
2. Intended Learning Outcomes of Course (ILOs):	a) Knowledge and Understanding
	Basic theory of planning, design, and management of socioeconomic systems
	b) Intellectual Skills
	To determine objectives, constituents, performance measurements of socioeconomic systems
	c) Professional and Practical Skills
	To plane implement and manage companies and institutes successfully.
	d) General and Transferable Skills
	Solve management problems and write reports

3. Contents

Topic	Total hours	Lectures hours	Tutorial/ Practical hours
Theory of planning and management of socio-economic systems	4		
Discussion and illustration of various elements in the theory	6		
Application to airport systems	6		
Application to airline companies	6		
Application to aircraft maintenance systems	6		
Application to space invasion project	4		

4. Teaching and Learning Methods	Lectures (32)	Practical Training/ Laboratory ()	Seminar/Workshop ()
	Class Activity	Case Study ()	Projects ()

	()		
	E-learning ()	Assignments /Homework ()	Other:

5. Student Assessment Methods

• Assessment Schedule	Week
-Assessment 1; Class test	
-Assessment 2; Project Assignment	
-Assessment 3; Presentations	
-Assessment 3; Midterm Exam	
-Assessment 4; Final Exam	
• Weighting of Assessments	
-Mid-Term Examination	
-Final-term Examination	70%
-Project	
-Class Test	10%
-Presentation	20%
-Total	

6. List of References

Churchman," the systems approach"
Ackoff, "The art of problem solving"
Von Gigch, "General applied systems theory"
Chadurich, "A systems Vieus of planning"
Negm, "Course Notes"

7. Facilities Required for Teaching and Learning

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Course Coordinator:	Prof. Hani M. Negm
Head of Department:	Prof. Ayman H. Kassem