



Course Specifications

Program(s) on which this course is given:	B. Sc. In Aerospace
Department offering the program:	Aerospace
Department offering the course:	Mechanical Design & Production
Academic Level:	1st Year Aerospace (2 nd Year in a five-year program)
Date	November, 2014.
Semester (based on final exam timing)	<input type="checkbox"/> Fall <input type="checkbox"/> Spring

A- Basic Information

1. Title:	Machines Drawing			Code:MDP121				
2. Units/Credit hours per week:	Lectures	1(2 hrs)	Tutorial	3(6 hrs)	Practical	-----	Total	4(8hrs)

B- Professional Information

1. Course description:	This course is designed to give the student the ability to understand the mechanical elements, how to draw and how to use the mechanical elements in mechanical design and assembly drawing.
2. Intended Learning Outcomes of Course (ILOs):	a) Knowledge and Understanding
	a1- Understand mechanical elements such as screws, nuts, springs, ...etc.
	a2- Applying fits and tolerance
	a3- Draw assembly drawing
	b) Intellectual Skills
	b1- Creative thinking for how simple machine works
	b2- Analysis the relationships between mechanical parts
	c) Professional and Practical Skills
	c1- The student will be able to understand and interpret mechanical drawings
	c2- The student will be able to produce, to a minimum established standard, mechanical drawings
	d) General and Transferable Skills
	d1- Assembly drawing preparation
	d2- Management of mechanical drawing project

3. Contents

Topic	Total hours	Lectures hours	Tutorial/ Practical hours
Screw threads	4	2	
Nuts, bolts, screws and washers	4	2	

Locking Devices	2	1	
Keys and Keyways	2	1	
Gears	4	2	
Limits and Fits	4	2	
Geometrical Tolerance	4	2	
Springs	2	1	
Welding and Welding Symbols	4	2	
Total	30	15	
4. Teaching and Learning Methods	Lectures ()	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		Distributed over all weeks	
-Assessment 2; Project Assignment			
-Assessment 3; Presentations			
-Assessment 3; Midterm Exam		Week 10	
-Assessment 4; Final Exam		End of term	
• Weighting of Assessments			
-Mid-Term Examination			
-Final-term Examination		60	%
-Project		40	%
-Class Test			
-Presentation			
-Total		100	%
6. List of References			
6.1- Course Notes			
6.2- Essential Books (Text Books)			
6.3- Recommended Books			
6.4- Periodicals, Web Sites, ... etc			
7. Facilities Required for Teaching and Learning			
Data Show, Video films, Smart board connected to internet			

Course Coordinator:	Prof. Dr. Fatheya Soliman
Head of Department:	Prof. Dr Aly EL Shafaey