

APPLIED MECHANICS ETIC 2851

CLASS TIME: Thursdays 8 am – 12:40 pm
CLASSROOM: Cocoa Campus Bldg 14 Room 129 Lab

INSTRUCTOR:
CONTACT DATA:

Textbook: “Machining Fundamentals, 8th Edition” By: **John R. Walker**

References: Aircraft Sheet Metal, Jeppesen Sanderson, Inc. by Nick Bonacci ISBN 0-89100-296-0

(On CD) AC 43.13-1B [Large AC. This includes Change 1.] Acceptable Methods, Techniques, and Practices - Aircraft Inspection and Repair

(On CD) AC 65-9A [Large AC] Airframe and Powerplant Mechanics General Handbook

(On CD) AC 65-15A [Large AC] Airframe and Powerplant Mechanics Airframe Handbook

Course Content:

This course will introduce students to the following:

1. Identification of hand and power tools commonly used by technicians
2. Inspection of tools for functionality; maintenance of tools
3. Cleaning and decontamination of tools
4. Knowledge and use of hydrasets and torque multipliers
5. Knowledge and use of shop machines / tools; and calibration verification.

Shop and field hazards, shop and field safety, and use of personal protective equipment will be taught.

LAB PROJECTS: Various individual lab projects will be assigned and will be due on the dates indicated

TERM PROJECT :

A term project is required as part of this course. The project will consist of the design and construction of an item (or model of item) used in the aerospace industry. The project must be functional and a presentation must be made on the use.

GRADING PROCEDURE:

The course grade will be a combination of the following components

Classroom Performance (Participation, Attentiveness, Professionalism, Teamwork)	10 pts
Mid-Term (One Examinations)	20 pts
Term Projects	25 pts
Hands – on Projects	20 pts
Final Exam (One 2-Hour Written Examination)	<u>25 pts</u>
	100 pts

Grades	90 to 100 pts	A
	80 to 89 pts	B
	70 to 79 pts	C
	60 to 69 pts	D
	Below 60	F

ADDITIONAL INFORMATION:

You are responsible for all notes and materials presented in class. If you miss a class, make sure that you have the class notes and any assignments or handouts.

Class material will be posted on Angel; you are responsible for checking Angel regularly to get class announcements and notes.

Attendance will be closely monitored. Irregular attendance would make it impossible to keep up with the material.

Make-up exams and incompletes will not be given. Contact instructor in advance for assistance, if you absolutely must miss a test.

Assignments turned in late will not be graded

Post exam reviews are mandatory and will start at the beginning of the next class session. It is very important to review the examination material for any mistakes that you might have made. Please notify the instructor if you will not be able to attend the exam review.

GRADING, ATTENDANCE POLICY AND WITHDRAWAL POLICY WILL BE IN ACCORDANCE WITH THE STUDENT HANDBOOK AND COLLEGE CATALOG

Applied Mechanics
GENERAL SCHEDULE

Fall 2009

(NOT A PART OF SYLLABUS - FOR STUDENT CONVENIENCE ONLY)

SUBJECT TO CHANGE

Week	Date	Content	Text (chapter)
1	20-Aug	Administrative, Shop / Lab Safety, Safety on the job, Lab Intro, Tool Control Basic Math Review	1, 2
2	27-Aug	Project requirements, Basic measurement, Micrometers, Sheet Metal Operations	4
3	3-Sep	Blue Print Reading, Layouts	3,5
4	10-Sep	Holding, striking, and assembling tools, Hand cutting tools, Pneumatic Tools care and use , Drill Presses, Cutting Fluids	6, 9, 10
5	17-Sep	Threaded Fasteners and Rivets Thread cutting tools and procedures, Torque wrench use, Torque Calculations, Crows feet and other special wrenches, Securing Fasteners (cotter pins, safety wire) , Special fasteners ,(Helix coils, Kwik pins, etc)	7
6	24-Sep	Metal cutting saws Mid Term Exam	6, 7, 12
7	1-Oct	Riveting	
8	8-Oct	Care and cleaning of Tools, Calibration, Hydrasets, Tubing	Chap 5 of AC 65-9A Hydraset Brochure
9	15-Oct	Types of abrasives, Surface grinding, Tool grinding, Finishing processes, Lab	
10	22-Oct	Lathes, Boring Machines, Milling Machines, Milling tools, Computer Numerical Control Machines	
11	29-Oct	Project Build	
12	5-Nov	Project Build	
13	12-Nov	Project Build	
14	19-Nov	Project Build	
15	3-Dec	Presentation of Class Project(s) Final Review	
16	10-Dec	Final Written Exam	