

TEXAS A&M UNIVERSITY
Department of Mechanical Engineering

MEEN 404 Engineering Laboratory, Section 503
Fall 2012

Instructor: Dr. Eric L. Petersen
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Office hours: W 09:00-11:00; TH 14:00-15:55; or by appointment

Description: This section is the laboratory component of MEEN 404. The goal of the laboratory is to develop and apply the skills learned in this class and the prerequisites toward the design of mechanical engineering experiments. The basic concepts are applicable to general scientific experiments that are not discipline specific.

Prerequisites: MEEN 260 – Mechanical Measurement
MEEN 360 – Materials and Manufacturing Selection in Design
MEEN 364 – Dynamic Systems and Controls
MEEN 461 – Heat Transfer
MEEN 401 – Intro to Mech. Eng. Design (or registration therein)

Laboratory Time: TH 15:55-18:45 **Room:** ENPH 205

Required Text: *none*

Grading (lab only):	Experiment 1	10%
	Experiment 2	15%
	Project	25%
	Oral Report	5%
	Lab Performance	10%

The lab grade is based primarily on the group laboratories, worth a total of 65% of the overall course grade. These laboratories are divided into two experiments lasting approximately 4 weeks each and one laboratory design project that spans roughly the second half of the semester. The grades for each experiment and the project are based on the group written reports. A group oral report associated with the design project is also required. All laboratory grades are group grades; the only exception is the Lab Performance which is worth 10% of the course grade and is an individual grade. The course grade is determined by the main instructor, Prof. Lalk. Please refer to the main course syllabus for any details not provided in this laboratory syllabus. If there are any discrepancies between the main course syllabus and this one, the main syllabus takes precedent. Note that the proposals count as 20% of each experiment's grade.

Cheating and Plagiarism. Any evidence of dishonesty in reporting (written and oral, proposals and final reports) and in performing the experiments will result in automatic failure of the course by the entire lab group. Examples of cheating and plagiarism include, but are not limited to: copying all of or some sections of laboratory reports from previous semesters or from other sections of the current semester; using rigs and equipment built by other students in previous semesters and claiming it as your own work; using some or all of the data from a previous laboratory group and claiming it as your own work; cutting and pasting written material directly from the internet or other digital sources. Note that using written material directly from the internet is plagiarism, even if you cite an appropriate reference for it. Cutting and pasting photographs and other figures from the internet is somewhere in the middle, where you should at least cite a reference for the material so that the reader does not think that you took the photograph yourself or generated the figure, and to give credit to the source. If it is a published source, you must obtain permission by the holder of the copyright in order to use it in your report or presentation.

Please see the attached laboratory schedule (Table 1). Reports are due during the lab class time on the days specified. No late reports will be accepted.

Table 1 Laboratory Schedule for Section 502 of MEEN 404, Fall 2012

Week	Thurs	Notes
1	8/30	Intro, groups, Work on proposals for 1st Exp
2	9/6	Ideas for 1st Exp. due
3	9/13	Proposals for 1st exp due; Run 1st Experiment
4	9/20	Finish 1st Experiment
5	9/27	1st Report Due ; proposal for 2nd Exp.
6	10/4	Run 2nd Experiment
7	10/11	Finish 2nd Experiment
8	10/18	work on project proposal
9	10/25	2nd Report Due; Project Proposal Due
10	11/1	Review Proposals
11	11/8	Review Proposals
12	11/15	Project
13	-	Holiday, 11/22
14	11/29	Oral Presentations
15	-	Reports due Tues., Dec. 4
16	-	(12/11, Final Exam, main Lecture, 3:30-5:30)