

- j. Knowledge of contemporary issues.
- k. Ability to use the techniques, skills and modern engineering tools necessary for engineering practice.

CLO	ABET Student Outcomes (SO)										
	SO1	SO2	SO3	SO4	SO5	SO6	SO7	SO8	SO9	SO10	SO11
1	x	x									
2	x	x			x						x
3		x			x						
4		x									x
5		x			x					x	x
6	x	x			x						
7		x			x						
8							x				
9					x						x

Grades: Lab Reports (8)	50%	≥ 90%	A
Lecture Attendance (10)	10%	80-89.9%	B
Midterm	20%	70-79.9%	C
<u>Final</u>	<u>20%</u>	60- 69.9%	D
Total	100%	< 60%	F

Reports: TWO copies of lab report are required: one hard copy and one electronic copy. For electronic copy, please turn in your group reports in PDF format and email it to lecturer: RobertSmith4@my.unt.edu. Please use key words like “MEEN 3240 Lab I, Group #5, lab report #7” for submitting reports. For hard copy, please turn it in to Lab Assistant in lab F158 before your new lab session starts. NO late lab reports will be collected.

A **Template** for lab report in MS Word format has been posted in Blackboard. **Download and use the template DIRECTLY. Convert your report to PDF before submitting.**

Due days for lab reports (Definition of “late” lab reports): if not otherwise stated, lab reports due EXACTLY one week after your lab session. For example, if your group lab session is Tuesday, 9:30 a.m.-10:50 a.m. (this is the first group on Tuesday morning lab session 9:30 a.m.-12:20 p.m.), this means you will do your experiment on every Tuesday 9:30 a.m.-10:50 a.m. Therefore, your lab report will due next Tuesday 9:30 a.m., before the new experiment starts. In this case, lab report turned in after 9:30 a.m. Tuesday will be considered as “late” and will not be collected.

Lecture attendance:

Lecture attendance is mandatory; attendance sheet will be provided and collected for each individual lecture. **Lecture attendance will contribute 10% to your final grade.**

Lab attendance:

Lab attendance is mandatory; a group picture in front of the lab equipment on the experiment day is required. This group picture should be included in your lab report and will be used to check the lab attendance. **Lab attendance will be incorporated in your peer evaluation score.**

Teamwork:

Each group should consist of maximum 5 students. Once the group is formed, students will have to stay in the same group and may NOT change group for the entire semester. By definition, a group must have more than one individual. Anyone unwilling or unable to work in a group with multiple other individuals will receive an ‘F’ in MEEN 3240. **Reports submitted by individuals will not be graded.**

Peer Evaluation: A peer evaluation will be performed for any individual experiment if any group member requests such a peer evaluation. Each group member will evaluate the **lab performances** and **report contributions** of other members in the same group anonymously by a scale of 0-100%. 100% means a good

job on the assigned part of work while 0% means totally no contribution to the lab and the report. Results of peer evaluation should be sealed in an envelope and turned in to the instructor or TA. The **(average percentage)* (group experiment report score)** will be the score of that particular student for that particular lab report.

For example, we assign max 100 points for each lab report, and the score for one group report is 94; Suppose one student received an average peer evaluation of 50%, then this individual student will receive a credit of $94 * 50\% = 47$ points for that particular lab report.

Exam:

- (1) **Exams are closed book closed notes with formula sheets.**
- (2) Formula sheets can be maximum 5 pages, A4 or letter size, both sides
- (3) Each student is responsible for preparing his/her own formula sheets.
- (4) Formula sheets could include anything BUT: data or data analysis from lab reports or experimental manual. Student who failed to follow this rule will score zero in the exam and this cheating matter will be reported to the department and university.
- (5) Formula sheets must be turned in with the exam papers (in the case of formula sheets were not checked by the instructor during the exam). Student who failed to follow this rule will score zero in the exam and this cheating matter will be reported to the department and university.
- (6) **There will be NO make-up exam.** Exceptions: medical emergence (student and important ones), transportation/traffic emergency; religious holidays/duty, jury duty and military duty.
Documentary evidence must be submitted.

Disability Accommodations: If you need academic accommodations for disability you must have document which verifies the disability and makes you eligible for accommodations, then you can schedule an appointment with the instructor to make appropriate arrangements.

Academic Dishonesty:

There is a zero tolerance policy. Cheating of whatsoever will result in an automatic 'F' in this course and the matter will be turned over to the appropriate student disciplinary committee.

IMPORTANT EXAM DATES

Midterm (Lectures and Experiments 1-4):

Section 1: Monday, October 16th, 2017; 2:30 p.m.-3:20 p.m.; room B140

Section 2: Wednesday, October 18th, 2017; 2:30 p.m.-3:20 p.m.; room F175

Final (non-Comprehensive, Lectures and Experiments 5-9):

Section 1: Monday, December 11th, 2017; 1:30 p.m.-3:30 p.m.; room B140

Section 2: Monday, December 11th, 2017; 1:30 p.m.-3:30 p.m.; room F175

MEEN 3240.001 MEE Lab I
Schedule Overview (Subject to change)

Week	Dates	Lecture Topics	Lab Session/Activity	Reports Due
#1	Aug 28 th – Sep 1 st	Overview of Syllabus	Team up in lab F158 Safety Training (provide by TA) Meet your TA and group members; collect TA/group member contact information	--
#2	Sep 4 th – Sep 8 th	Overview of Syllabus, Lab Report Template, Grading Rubric for Reports, Lab Location	No Lab/Experiment	--
#3	Sep 11 th – Sep 15 th	Lecture 1: Measurement & Uncertainty	No Lab/Experiment	--
#4	Sep 18 th – Sep 22 nd	Lecture 1 (Continued): Measuring Properties of unknown Materials; Uncertainty Propagation	Experiment #1: Uncertainty Analysis through density calculation	--
#5	Sep 25 th – Sep 29 th	Lecture 2: Temperature Sensors; Calibration; Curve Fitting	Experiment #2: Thermocouple, RTD, and Thermistor Calibration	Exp. #1
#6	Oct 2 nd – Oct 6 th	Lecture 3: Sensible Heat Calorimetry; Uncertainty	Experiment #3: Specific Heat of Aluminum	Exp. #2
#7	Oct 9 th – Oct 13 th	Lecture 4: Latent Heat Calorimetry; Midterm Exam review	Experiment #4: Latent Heat of Ice	Exp. #3
#8	Oct 16 th – Oct 20 th	Midterm Exam: Section 1: Monday, October 16th (coverage: Lectures and Experiments 1-4)	No New Lab/Experiment Lab Report #4 due as usual	Exp. #4
		Midterm Exam: Section 2: Wednesday, October 18th (coverage: Lectures and Experiments 1-4)		
#9	Oct 23 rd – Oct 24 th	Pass back Midterm Exams, Review Exam, Review Lab Reports 1-4	No Lab/Experiment	--
#10	Oct 30 th – Nov 3 rd	Lecture 5: Stokes Law; Data Analysis	Experiment #5: Air Viscosity	--
#11	Nov 6 th – Nov 10 th	Lecture 6: Liquid Viscosity; Uncertainty	Experiment #6: Zahn Cups and Rotational Viscometer	Exp. #5
#12	Nov 13 th – Nov 17 th	Lecture 7: Wind Power; Uncertainty	Experiment #7: Wind Turbine Efficiency	Exp. #6
#13	Nov 20 th – Nov 24 th	Zero Energy Lab & Thermoelectrics	No Lab/Experiment	Exp. #7
#14	Nov 27 th – Dec 1 st	Lecture 8: Solar Energy; Data Analysis	Experiment #8: Solar Panel Efficiency	--
#15	Dec 4 th – Dec 8 th	Final Exam Review	No new Lab/Experiment Lab Report #8 due as usual	Exp. #8
#16	Dec 11 th – Dec 15 th	Final Exam: Section 1: Monday, Dec 11th @ 1:30 p.m.		
		Final Exam: Section 2: Monday, Dec 11th @ 1:30 p.m.		