

## ME 406 MECHANICAL LABORATORY – III

January 16, 2024

Spring 2024

### COURSE ADMINISTRATIVE INFORMATION

<b>Course Name:</b>	<b>Mechanical Laboratory – 3 (1-2-2)</b>
<b>Course-Section Number:</b>	ME406-010 (Tuesday) (CRN: 15966)
<b>Class meeting room / laboratory:</b>	MEC-110
<b>After Class office room:</b>	MEC 330
<b>Instructor's Name:</b>	<b>B. S. Mani</b>
<b>Office Telephone:</b>	<b>(973) 596-3339</b>
<b>Cell Phone :</b>	<b>(630) 345-0558</b>
<b>e-mail id:</b>	<a href="mailto:mani@njit.edu">mani@njit.edu</a>
<b>Teaching Assistant:</b>	<b>Mohammad Moghanjooghi</b>
<b>e-mail id:</b>	<b>mm422@njit.edu Tel: (646) 240-7561</b>
<b>Engine Lab Support:</b>	<b>Mr. Orlando Castillo &amp; Mr. David Bailey</b>
<b>Class meeting hours:</b>	Tuesday: 1:00 PM to 3:50 PM
<b>After Class office hours:</b>	Tuesday 11:30 to 12:50 AM
<b>Complaints / Compliments:</b>	Dr. Joga Rao; (973) 596-3330 ( <a href="mailto:i.j.rao@njit.edu">i.j.rao@njit.edu</a> )

### TEXTBOOK

J. P. Holman, *Experimental Methods for Engineers*, 8<sup>th</sup> Edition, McGraw Hill, 2012

### COURSE DESCRIPTION

Laboratory covering the testing and evaluation of complete mechanical systems.

*Prerequisites: ME 405, ME 407.*

### LABORATORY REPORT

All reports shall be *individually completed* and submitted on schedule

*Penalty for late submission: 10%*

Group discussion is encouraged but not writing 'Group Report'

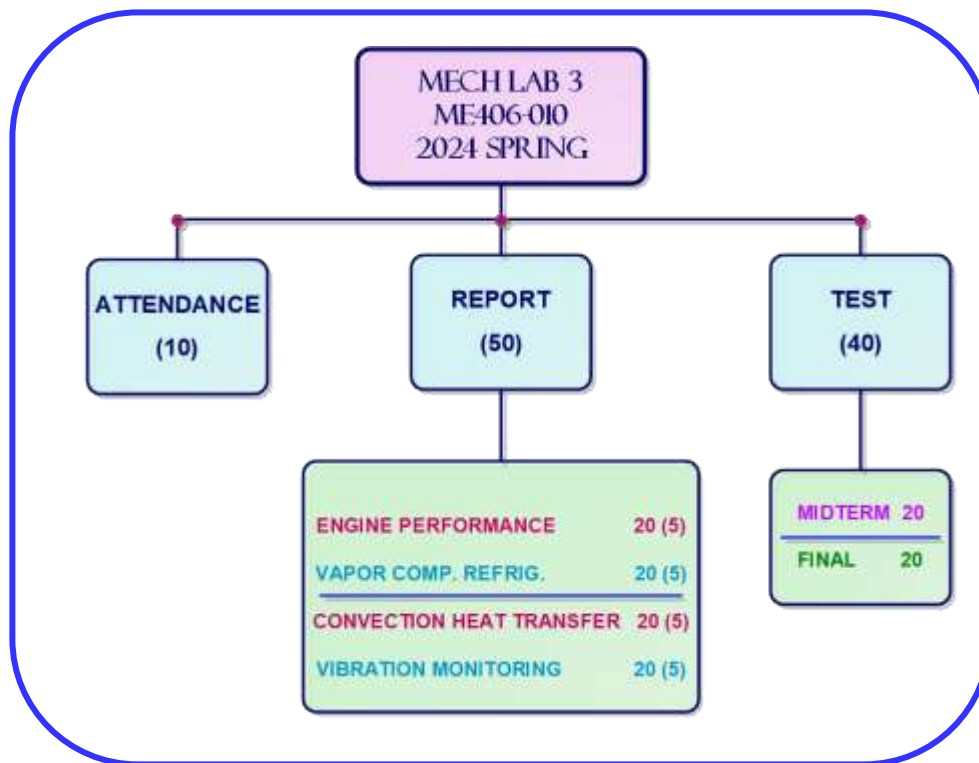
Grade for identical reports or very similar reports, will be divided among the number of students involved

Laboratory report must follow the formal report format suggested

Grades in case of resubmitted reports (if allowed), will be averaged with the original grade

NO cheating in any manner in any laboratory report(s) / test(s) will be tolerated

*Contd...*



### GRADING SCHEME

LETTER GRADE	QUANTITATIVE REQUIREMENT	QUALITATIVE ACHIEVEMENT
A	90% & above	Superior Achievement
B plus	85% to 89.99%	Excellent Achievement
B	80% to 84.99%	Very Good Achievement
C plus	75% to 79.99%	Good Achievement
C	70% to 74.99%	Acceptable Achievement
D	60% to 69.99%	Minimum Achievement
F	59.99% and below	Inadequate Achievement

### GENERAL REQUIREMENTS

- Regular attendance to all lecture classes is required
- Staying attentive to lectures during class is expected
- 30 minutes or more delay in arriving at the lecture/lab session will be treated as absence
- Assignments shall be submitted on schedule – penalty for late submission(s): 10%
- Reasonably equal participation in team Laboratory Experiment is expected
- Team working for all general homework is highly encouraged
- Taking the Midterm & Final Examination is *mandatory to receive a final course grade*
- Safety instructions inside the laboratory shall be obeyed
- IPOD and Cell Phone use during Class or Laboratory will NOT be allowed
- Make-up examination, except for authentic medical reason(s), will NOT be allowed

No tolerance for *cheating* in any manner in any test OR in report preparation  
Any student found copying a report will be awarded zero for that report – with no option to resubmit  
Any student found *cheating during a test* will be awarded a course grade of ‘F.’

Please refer to the University Policy on Academic Integrity at  
<https://www.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf>

ME 406-010 (CRN 15966): MECHANICAL LABORATORY III

SPRING 2024

#	DATE	DAY	TEAM-1	TEAM-2	TEAM-3	TEAM-4	HIGHLIGHTS / REMARKS
1	01/16/24	Tuesday	Lecture	Lecture	Lecture	Lecture	Lecture: Syllabus
2	01/23/24	Tuesday	Lecture	Lecture	Lecture	Lecture	Lecture: Reports, IC Engines
3	01/30/24	Tuesday			Refrigeration: TA	Engine:Orlando (Mani, Bailey)	Lecture: Refrigeration
4	02/06/24	Tuesday	Refrigeration: TA	Engine:Orlando (Mani, Bailey)	Analysis & Report	Analysis & Report	
5	02/13/24	Tuesday	Analysis & Report	Analysis & Report	Engine:Orlando (Mani, Bailey)	Refrigeration: TA	
6	02/20/24	Tuesday	Engine:Orlando (Mani, Bailey)	Refrigeration: TA	Analysis & Report	Analysis & Report	
7	02/27/24	Tuesday	Review + Analysis & Report	Review + Analysis & Report	Review + Analysis & Report	Review + Analysis & Report	Review for Midterm
8	03/05/24	Tuesday	Submit Reports+Midterm	Submit Reports+Midterm	Submit Reports+Midterm	Submit Reports+Midterm	1 Long +1 Short Reports due
	03/12/24	Tuesday	Spring Break	Spring Break	Spring Break	Spring Break	
9	03/19/24	Tuesday	Lecture	Lecture	Lecture	Lecture	Lecture: Heat Trans+Vibration
10	03/26/24	Tuesday	Vibrations:TA	Heat Trans: Mani	Analysis & Report	Analysis & Report	
	04/01/24	Monday	Last day to Withdraw	Last day to Withdraw	Last day to Withdraw	Last day to Withdraw	Last day to Withdraw
11	04/02/24	Tuesday	Analysis & Report	Analysis & Report	Vibrations:TA	Heat Trans: Mani	
12	04/09/24	Tuesday	Heat Trans: Mani	Vibrations:TA	Analysis & Report	Analysis & Report	
13	04/16/24	Tuesday	Analysis & Report	Analysis & Report	Heat Trans: Mani	Vibrations:TA	
14	04/23/24	Tuesday	Review + Analysis & Report	Review + Analysis & Report	Review + Analysis & Report	Review + Analysis & Report	Review for Final
	04/30/24	Tuesday	Friday Schedule	Friday Schedule	Friday Schedule	Friday Schedule	Last day of classes
15	Exam Date		Reports Due	Reports Due	Reports Due	Reports Due	1 Long +1 Short Reports due
			Final exam	Final exam	Final exam	Final exam	On Registrar's exam date
	05/11/23	Monday	Grades Due	Grades Due		Grades Due	Grades due
GRADING SCHEME						REPORT SET 1 (PINK)	REPORT SET 2 (TEAL)
Report - long (#1)	20			Mid Term Exam (1)	20	Engine Perf. (Long)	Refrigeration (Long)
Report - long (#2)	20			Final Exam (1)	20	Heat Transfer (Long)	Vibration (Long)
Report - short (#1)	5			Attendance (15 meetings)	10	Refrigeration (Short)	Engine Perf. (Short)
Report - short (#2)	5			Total	100	Vibration (Short)	Heat Transfer (Short)
INSTRUCTOR: B. S. Mani (mani@njit.edu, (x 3339), (630) 345-0658)			TEACHING ASSISTANT: Mohammad Moghanjooghi, mm422@njit.edu, (646) 240-7561				
ENGINE PERFORMANCE TEST: Mr. David Bailey (x 3320), david.bailey@njit.edu + Mr. Orlando Castillo, (orlando.castillo@njit.edu), (x3320)							

B. S. Mani

CAUTION: PLEASE DO NOT FOLLOW AVERAGES SHOWN ON CANVAS

01/16/2024