



New Jersey's Science & Technology University

## NEWARK COLLEGE OF ENGINEERING

### ME 406 MECHANICAL LABORATORY – III

September 05, 2023

Fall 2023

#### COURSE ADMINISTRATIVE INFORMATION

<b>Course Name:</b>	<b>Mechanical Laboratory – 3 (1-2-2)</b>
<b>Course-Section Number:</b>	ME406-001 (Wednesday) (CRN: 94852)
<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>Yassine Tissaoui</b>
<b>e-mail id:</b>	<b>yt277@njit.edu Tel: (267) 243-3024</b>
<b>Engine Lab Support:</b>	<b>Mr. Orlando Castillo &amp; Mr. David Bailey</b>
<b>Class meeting hours:</b>	Wednesday: 11:30 AM to 2:20 PM
<b>After Class office hours:</b>	Tuesday 2:30 to 3:50 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'

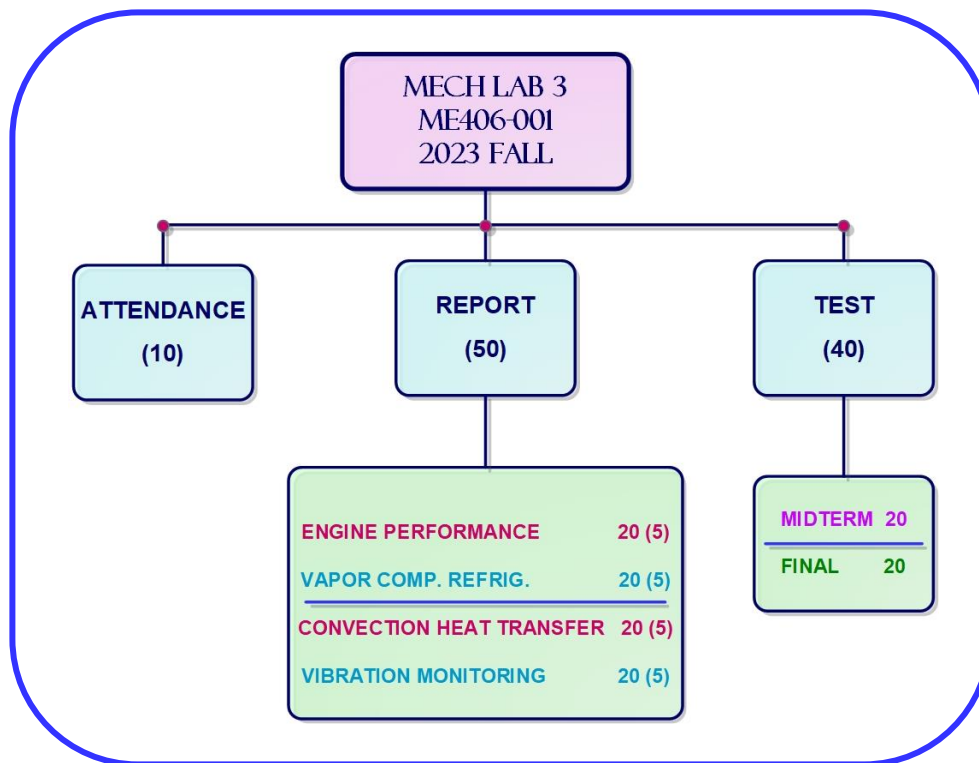
Grade for identical reports or very similar reports, will be divided among the number of students involved

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
<b>A</b>	90% & above	Superior Achievement
<b>B plus</b>	85% to 89.99%	Excellent Achievement
<b>B</b>	80% to 84.99%	Very Good Achievement
<b>C plus</b>	75% to 79.99%	Good Achievement
<b>C</b>	70% to 74.99%	Acceptable Achievement
<b>D</b>	60% to 69.99%	Minimum Achievement
<b>F</b>	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 406-001 (CRN 94852): MECHANICAL LABORATORY III

FALL 2023

#	DATE	DAY	TEAM-1	TEAM-2	TEAM-3	TEAM-4	HIGHLIGHTS / REMARKS
1	09/06/23	Wednesday	Lecture	Lecture	Lecture	Lecture	Lecture: Syllabus, Reports, IC Engines
2	09/13/23	Wednesday			Refrigeration: TA	Engine Perf.:Mani/Bailey	Lecture: Refrigeration
3	09/20/23	Wednesday	Refrigeration: TA	Engine Perf.:Mani/Bailey	Analysis & Report	Analysis & Report	
4	09/27/23	Wednesday	Analysis & Report	Analysis & Report	Engine Perf.:Mani/Bailey	Refrigeration: TA	
5	10/04/23	Wednesday	Engine Perf.:Mani/Bailey	Refrigeration: TA	Analysis & Report	Analysis & Report	
6	10/11/23	Wednesday	Review + Analysis & Report	Review + Analysis & Report	Review + Analysis & Report	Review + Analysis & Report	Review for Midterm
7	10/18/23	Wednesday	Submit Reports+Midterm	Submit Reports+Midterm	Submit Reports+Midterm	Submit Reports+Midterm	1 Long +1 Short Reports due
8	10/25/23	Wednesday	Lecture	Lecture	Lecture	Lecture	Lecture: Heat Trans+Vibration
9	11/01/23	Wednesday	Vibrations:TA	Heat Trans: Mani	Analysis & Report	Analysis & Report	
10	11/08/23	Wednesday	Analysis & Report	Analysis & Report	Vibrations:TA	Heat Trans: Mani	
	11/13/23	Monday					Last day to Withdraw
11	11/15/23	Wednesday	Heat Trans: Mani	Vibrations:TA	Analysis & Report	Analysis & Report	
	11/22/23	Wednesday					Friday schedule
12	11/29/23	Wednesday	Analysis & Report	Analysis & Report	Heat Trans: Mani	Vibrations:TA	
13	12/06/23	Wednesday	Review + Analysis & Report	Review + Analysis & Report	Review + Analysis & Report	Review + Analysis & Report	Review for Final
14	12/13/23	Wednesday	Reports Due	Reports Due	Reports Due	Reports Due	1 Long +1 Short Reports due
15			Final exam	Final exam	Final exam	Final exam	On exam date
	12/25/23	Monday	Grades Due	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 man@njit.edu, (x 3339), (630) 345-0558					TEACHING ASSISTANT: Yassine Tissaoui, yt277@njit.edu, (267) 243-3024		
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

09/06/2023