

Fall 2023

ME 406-103: Mechanical Lab III

Trivi Pala

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ME 406 - Section 451: Mechanical Lab-III

Wed: 6:00 PM to 9:00 PM

Text: J.P. Holman, Experimental Methods for Engineers, Seventh Edition, McGraw Hill, 2001.
Mechanical Laboratory III Manual, Available on Moodle

Instructor: Dr. Trivikrama Pala
862-221-0860, tbp8@njit.edu

Office Hours: Wednesday 5:30 to 6:00 PM

Prerequisite: ME 405, ME 343, ME 312. Co-requisite: ME 407-Heat Transfer.

Description: Laboratory emphasizes the use of fundamental principles, and instrumentation systems, for the analysis, and evaluation of mechanical components within a system.

GRADING:

Laboratory Reports - Long	60%
Attendance and Class performance	5%
Mid Term Exam	15%
Final Exam	20%

**Lab Reports
& Homework:**

- Lab reports are due two weeks after the lab performance. Late penalty is minus 15% each week. Lab reports more than one week late will not be accepted.**
- Homework must be submitted in the format provided by the professor.
- Lab reports should be submitted in the format provided by the professor.

**Course
Policies:**

- Attending class, completing assignments on time, and keeping up with the class material is important for success in this course and in college. Generally, late or missed assignments **will not** be accepted except for legitimate (**pre-approved when possible**) reasons as determined by the instructor. **The method of handling late or missed work is determined by the instructor.**
- Missing a lab session will lead to an 'F' grade in the course.** Exceptions will only be made for cases of excused absences supported by relevant documentation submitted and verified by the office of Dean of Students.
- ANY FORM OF CHEATING ON LAB REPORTS, ASSIGNMENTS OR EXAMS WILL RESULT IN AN 'F' FOR THE COURSE.** This

includes looking at another person's exam or copying another person's work for lab reports, exams or assignments.

4. NJIT honor code will be used for all situations that involve cheating, copying, misrepresentation of student work, and misrepresentation of student information and any violations will be brought to the immediate attention of the Dean of Students (visit <http://www.njit.edu/academics/honorcode.php>.)
5. All lab reports are to be turned in by the due date on **Canvas** and must include the statement "This assignment represents my work and is not the result of copying or using any other persons work." The statement must be signed by the student submitting the work.
6. **Submission of all lab reports is required for a passing grade**
7. Lab reports are due two weeks after the performance of the lab, **BEFORE** the start of Lecture. Lab reports turned in after the lecture starts are counted as late.
8. Lab reports that are more than 1 week late will not be accepted.
9. Point deduction - Late Assignments: 1 Week-15%
10. Lab reports will not be accepted without a signed preliminary report calculation sheet
11. Attendance, attitude, class participation and effort can and will be used to change borderline grades up or down.
12. For special allowances associated with abilities student must approach the Disability Resource Center.
13. For any modifications or deviations from the syllabus throughout the course of the semester, the instructor will consult with students and the students must agree to.
14. The grading weightage may change slightly through the course of the semester and the students must agree to.

Labs:

Performance Testing of an Internal combustion engine
Performance Testing of Vapor compression refrigeration cycle
Vibration monitoring
Heat transfer by free and forced convection

Administration of Exams:

- Exams will be administered using either a combination of Respondus + Lockdown Browser and Webex or through ProctorU Review+.
- Students need to have access to a laptop to be able to take the exam using the above mentioned tools.
- NJIT honor code will be strictly adhered to, any violations will be processed through the office of Dean of students.