

Fall 2019

## ME 405-003: Mechanical Laboratory II

Swapnil Moon

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**ME 405: Mechanical Lab-II**

**Monday:** 1:00 PM to 3:50 PM

**Room:** MEC-110

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

**Instructor:** Dr. Swapnil Moon, MEC 333-CD  
201-665-2223, [swapnil.moon@njit.edu](mailto:swapnil.moon@njit.edu)

**Office Hours:** Wednesday 11:30-12:45 PM

**Prerequisite:** 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	50%
Midterm Exam	20%
Preliminary Reports & Class Participation	10%
Final Exam	20%

**HOMEWORK:**

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

**Ground Rules:**

1. 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.**
2. **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.
3. **ANY FORM OF CHEATING ON 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 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. Students have to print out the lab manuals before coming to the lab performance.
6. Hardcopies of all lab reports are to be turned in by the due date 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.
7. Soft copies of the lab have to be uploaded to Moodle.
8. Lab reports will not be accepted without performance of the lab
9. 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.
10. Lab reports that are more than 1 week late will not be accepted.
11. Point deduction - Late Assignments: 1 Week-15%
12. Lab reports will not be accepted without a signed preliminary report calculation sheet
13. Attendance, attitude, class participation and effort can and will be used to change borderline grades up or down.
14. For special allowances associated with disabilities student must approach the Disability Resource Center.
15. 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.
16. The grading weightage may change slightly through the course of the semester and the students must agree to.

**Labs:**

Performance Testing of a Centrifugal Pump

Performance Testing of a Gear Pump

Hydraulic Impulse Turbine

Pressure Distribution and Drag Force in Flow Past a Cylinder

Transient Conduction in Bodies of Finite Length