



Syllabus for ME001: Introduction to Mechanical Engineering

Fall 2021

Instructor: James Palko

Designation: ME001

Catalog Description: An introduction to the practice of mechanical engineering and the areas of study involved. Fundamental physical and mathematical concepts are introduced and explored in the context of mechanics, thermofluids, dynamics and controls, and design and manufacturing. An overview of application fields and careers in mechanical engineering is developed, and ethics as it relates to the practice of mechanical engineering is investigated.

Text Books and Other None

Required Materials:

Course Objectives/ This course will introduce the practice of mechanical engineering and the areas of study involved.

Student Learning

Outcomes:

Upon successful completion, students will acquire:

1. An overview of the mathematical and scientific knowledge required in the practice of mechanical engineering
2. An ability to apply basic mathematical and scientific knowledge in engineering contexts
3. An ability to formulate and solve basic engineering problems
4. An understanding of ethical and professional responsibility in the context of mechanical engineering and the impact it has on society and the wider world

Program Learning

Outcomes:

Prerequisites by Topic:

Course Policies:

1. In general, please try to maximize the opportunity to learn in lecture for yourself and your fellow students. Please avoid activities that may distract those around you. 2. Please silence all electronic devices and refrain from using them for anything except lecture related activities during class.

Academic Dishonesty
Statement:

- a. Each student in this course is expected to abide by the University of California, Merced's Academic Honesty Policy. Any work submitted by a student in this course for academic credit will be the student's own work.
- b. You are encouraged to study together and to discuss information and concepts covered in lecture and the sections with other students. You can give "consulting" help to or receive "consulting" help from such students. However, this permissible cooperation should never involve one student having possession of a copy of all or part of work done by someone else, in the form of an e mail, an e mail attachment file, a diskette, or a hard copy. Should copying occur, both the student who copied work from another student and the student who gave material to be copied will both automatically receive a zero for the assignment. Penalty for violation of this Policy can also be extended to include failure of the course and University disciplinary action.
- c. During examinations, you must do your own work. Talking or discussion is not

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	permitted during the examinations, nor may you compare papers, copy from others, or collaborate in any way. Any collaborative behavior during the examinations will result in failure of the exam, and may lead to failure of the course and University disciplinary action.
Disability Statement:	Accommodations for Students with Disabilities: The University of California Merced is committed to ensuring equal academic opportunities and inclusion for students with disabilities based on the principles of independent living, accessible universal design and diversity. I am available to discuss appropriate academic accommodations that may be required for student with disabilities. Requests for academic accommodations are to be made during the first three weeks of the semester, except for unusual circumstances. Students are encouraged to register with Disability Services Center to verify their eligibility for appropriate accommodations.
Topics:	Some of the key topics covered in the course will include: <ul style="list-style-type: none"> • Introduction and practice of mechanical engineering • Mathematical fundamentals • Areas of study in mechanical engineering • Application fields and careers in mechanical engineering • Consequences of engineering practice and engineering ethics • Research in mechanical engineering
Class/laboratory Schedule:	1 hours of lecture per week; LECT F 3:30-4:20pm COB2 110
Midterm/Final Exam Schedule:	Final presentations: R 3:00-6:00pm CLSSRM 102 16-DEC
Course Calendar:	Lecture LECT F 3:30-4:20pm COB2 110 3-SEPT 10-DEC
	Detailed calendar to be distributed in class.
Professional Component:	Provides an overview of engineering practice.
Assessment/Grading Policy:	Evaluated components of the course will be weighted as follows: Quizzes: 60% Final poster: 40%
Coordinator:	James Palko
Contact Information:	Professor: James Palko Office: SRE 355 Email: jpalko@ucmerced.edu
Office Hours:	Palko: SRE 355, Wed 9-10a Office hours with Dr. Palko can also be arranged by appointment. Try to arrange appointments well in advance, as it may be difficult to accommodate them on short notice.