

AE 2220 Syllabus

Dynamics AE2220, Section RIN, 3 Credits
Summer 2026

Instructor Information

Instructor: J. Prasad

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General Course Information

Description

Kinematics and kinetics of rigid bodies in plane motion; introduction to kinematics and kinetics of rigid bodies in three-dimensional motion.

Course Learning Outcomes

Students will be able to:

- Solve problems involving the kinematics of point motion
- Solve problems involving kinematics of rigid bodies in both plane and three-dimensional motion, including a treatment of Euler-type orientation angles
- Solve problems related to the kinetics of rigid bodies in plane and three-dimensional motion
- Develop basic level of understanding of the use of impulse-momentum principles for solving collision problems and work-energy principles

Required Course Materials

McGill and King, *Engineering Mechanics: An Introduction to Dynamics* (3rd or 4th Ed)

Grading Policy:

- Homework: 50%
- Mid-term exam: 25%
- Final Exam: 25%

A>90; B>80; C>65; D>50

Assignments:

Homework 1: 12%

Homework 2: 12%

Homework 3: 13%

Homework 4: 13%

Mid-term exam: 25%

Final Exam: 25%

Description of Graded Components

All homework will be posted as assignments on Canvas with deadlines. The mid-term and final exams will be in-class exams and are closed book and closed notes exams. Equation sheet will be provided.

Course Policies

Attendance and/or Participation

You are required to attend all classes and participate in class discussions.

Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review [Georgia Tech's Honor Code](#) and the student [Code of Conduct](#).

Any student suspected of cheating or plagiarism on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Core IMPACTS

[Not Applicable](#)

Accommodation for Students with Disabilities

If you are a student with learning needs that require special accommodation, [contact the Office of Disability Services](#) as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

Student-Faculty Expectations Agreement

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. [The Student-Faculty Expectations](#) articulate some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.

Pre-&/or Co-Requisites

COE 2001 Statics

Collaboration, Group Work, and Use of Generative AI

You are allowed to consult with one another on homework. However, you must submit entirely your own work. You are not allowed to use Generative AI in your solutions to homework. Both mid-term and final exams will be closed book and notes. I will provide equation sheet.

Extensions, Late Assignments, & Re-Scheduled/Missed Exams

Late homework submissions without prior approval will be penalized accordingly. Make-up exams are given for illness, approved Institute activities or religious observances.