

ROSE-HULMAN INSTITUTE OF TECHNOLOGY

Department of Mechanical Engineering

ES 204 - Mechanical Systems

Webpage: <http://www.rose-hulman.edu/ES204/index.shtml>

OBJECTIVES

This course is designed to build on the material presented in ES201 and to deepen the student engineers' understanding of the kinematics and kinetics of particles and rigid bodies. In order to meet this objective a certain level of expertise in both mathematics and conservation and accounting principles are required. It will be assumed, therefore, that you have taken the prerequisite courses (ES201 and MA201) and are able to work problems involving vector mechanics, calculus and equilibrium of particles and rigid bodies and problems involving conservation of energy, linear and angular momentum. If you are having trouble in these areas you should consult your instructor as to an appropriate course of action, but do not expect him or her to devote class time to this material.

INSTRUCTORS

Instructor	Dr. Cornwell	Dr. Moseley	Dr. Purdy	Dr. Burchett
Office	C-217	E-102	C-105	C-107
Phone	x-8232	x-8263	x-8321	x-8929

COURSE TESTING

The examinations will be closed book and closed notes. However, *one* 8.5" x 11" sheet with notes written on *one* side will be permitted. Sample problems are not allowed on crib sheets. This sheet must be signed and turned in with each exam. Students found with any additional notes or crib material will receive a zero for the examination. You may use Maple on the exams, but no existing worksheets. **No makeup examinations will be given.** If an examination is missed with an approved excuse, the grade received on the final examination will also be used for the missed exam.

VALID EXCUSES

A valid excuse consists of a memorandum on Institutional letterhead from the Dean of Students. Job and graduate/professional school interviews, attending scientific conferences, and Institute-sponsored activities may also be valid excuses provided that the student notifies me *in writing* and *at least one week in advance* of the event. Illness and exceptional circumstances are, of course, valid excuses if a confirming memo from the Dean of Students is provided within one week of the event.

FINAL COURSE GRADE

Your final course grade will be based upon the following weighted average:

Homework/Quizzes	15%
Laboratory	10%
Examinations 3 @ 15%	45%
Final Examination	<u>30%</u>
	100%

Note: You must pass the exams to pass the class.

ACADEMIC ACCOMODATIONS

Students with documented special needs should contact me as soon as possible so that we can we can work together to provided recommended academic accommodations while protecting your privacy. **It is the student's responsibility to request any approved document academic accommodations at least one week in advance of exams, quizzes , etc.**

TEXT

Course notes bought in the bookstore.

REFERENCES

Vector Mechanics for Engineers, Dynamics, 9th Ed., by Beer, Johnston and Cornwell, McGraw-Hill, 2009.

Dynamics - Engineering Mechanics, 5th Ed., by Bedford and Fowler, Addison-Wesley, 2008

Engineering Mechanics, Dynamics, 5th Ed., by Meriam & Kraige, J. Wiley & Sons, 2002.

Engineering Mechanics, Statics and Dynamics, 1th Ed., by R. C. Hibbeler, Prentice Hall, 2007.

CAVEAT

I reserve the right to modify the course content, schedule, policies, etc. outline in this syllabus.