

## ROSE-HULMAN INSTITUTE OF TECHNOLOGY

Department of Mechanical Engineering

ES 204 - Mechanical Systems

Webpage: [http://www.rose-hulman.edu/class/me/HTML/ES204\\_0506\\_W/index.shtml](http://www.rose-hulman.edu/class/me/HTML/ES204_0506_W/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. Burchett	Dr. Fisher	Dr. Cornwell	Dr. Purdy
Office	C-107	E-101	C-217	C-105
Phone	x-8929	x-8619	x-8232	x-8321

### 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.

### 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%

### TEXT

Course notes bought in the bookstore.

### REFERENCES

*Vector Mechanics for Engineers, Dynamics*, 6th Ed., by Beer and Johnston, McGraw-Hill, 1997.

*Dynamics - Engineering Mechanics*, 2nd Ed., by Bedford and Fowler, Addison-Wesley, 1999

*Engineering Mechanics, Dynamics*, 4th Ed., by Meriam & Kraige, J. Wiley & Sons, 1997.

*Engineering Mechanics, Statics and Dynamics*, 8th Ed., by R. C. Hibbeler, Prentice Hall, 1983.