ME 6590  Multibody Dynamics (Call #46406)  Fall 2012

Lecture:  Thursday  4:30-6:50 pm  C-136 CEAS

Instructor:  Dr. James W. Kamman, Room G-222 CEAS, Tel/Voice Mail: (269) 276-3427
Fax: (269) 276-3421, Email: james.kamman@wmich.edu
Home page: http://www.mae.wmich.edu/faculty/kamman/index.htm

Office Hours:  Monday, Wednesday, and Friday: 1:30-3:00 pm; Thursday: 3:00-4:15 pm
Just after class is also a good time for short questions.
If you need to see me outside of these hours, please call ahead for an appointment.


Prerequisite:  ME 5550 Intermediate Dynamics (course in three dimensional dynamics)

Software:  MATLAB/Simulink/SimMechanics software (available in the CAE Center).

Grading:  
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<tr>
<th>Component</th>
<th>Percentage</th>
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<tr>
<td>Homework</td>
<td>30%</td>
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<tr>
<td>Exams (2@ 15% each)</td>
<td>30%  (80 minutes)</td>
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<tr>
<td>Project</td>
<td>20%</td>
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<tr>
<td>Final Exam</td>
<td>20%        (120 minutes)</td>
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<td>Total</td>
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Grading Scale:
- 100% - 90%  A
- 89% - 86%  BA
- 85% - 80%  B
- 79% - 76%  CB
- 75% - 70%  C
- 69% - 66%  DC
- 65% - 60%  D
- Below 60%  E

Attendance:  Regular attendance is expected.

Exams:  The tentative dates of the two 80-minute exams are Thursday, October 18 and Thursday, November 29, each starting at 4:30 pm. Lecture will follow the exam until 6:50 pm. The final exam will be given on Thursday, December 13 from 5-7 pm. Make-up exams will be given only under extreme circumstances. If you are unable to attend on an exam night, you must notify me before that night to make other arrangements.

Homework:  Homework assignments will be made regularly throughout the course. All assignments must be handed-in on the due-date for grading. Collaboration on homework is encouraged; however, the work that you turn in must be your own! Copying of other’s assignments may result in a zero for that assignment. Your work must be complete, neat and readable with appropriate diagrams and calculations clearly shown. For assignments involving computer programs, you are required to e-mail your model file(s) to the instructor.
Project: The purpose of the project is for you to perform some detailed independent study related to the dynamics of mechanical systems, preferably multibody systems. The study may focus on problems that you have at work, some topic(s) that are not covered in class lectures, or recent journal papers. The project should be presented in a detailed word-processed report at the last lecture class. Your project will be evaluated based on the depth of your work and on your written report. All projects must be approved by the instructor by Thursday, October 18. Your reports will be graded as follows:

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<tbody>
<tr>
<td>Grammar and Spelling</td>
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<tr>
<td>Technical Content and Presentation</td>
<td>80%</td>
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<td>Total</td>
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Honesty: You are responsible for making yourself aware of and understanding the policies and procedures in the Undergraduate and Graduate Catalogs that pertain to Academic Honesty. These policies include cheating, fabrication, falsification and forgery, multiple submission, plagiarism, complicity and computer misuse. [The policies can be found at http://catalog.wmich.edu under Academic Policies, Student Rights and Responsibilities.] If there is reason to believe you have been involved in academic dishonesty, you will be referred to the Office of Student Conduct. You will be given the opportunity to review the charge(s). If you believe you are not responsible, you will have the opportunity for a hearing. You should consult with your instructor if you are uncertain about an issue of academic honesty prior to the submission of an assignment or test.

**Typical Report Outline**

I. Title page  
   (see web site for title page)

II. Abstract  
   -Brief description/overview of your project

III. Table of Contents

IV. Introduction  
   -background information about your project  
   -description of project focus (be specific)

V. Project Presentation  
   -Be thorough  
   -Break into subsections as necessary for clarity of presentation

VI. Conclusions and Recommendations

VII. References  
   -you must have references!