General Course Information
T&AM 203 (dynamics), Spring 1997
(as of January 21, 1997)

Sections on Wednesday: (First meeting 1/22/97 meets in Upson basement MAC lab for all sections. Bring your MATLAB book.)

Staff

Lecturers:	Andy Ruina, Kimball 309, ruina@cornell.edu, 277-5675.
	Phoebus Rosakis, Kimball 224, phoebus@tam.cornell.edu, 255-5415.
	Lectures at 10:10 & 12:20. Attend either lecture.
Assistants:	Tama's Nagy - nagy@tam.cornell.edu - 110 Thurston - 5-4077
	Steve Holland - sdh4@cornell.edu - 306 Thurston Hall - 5-0986
	Sivasambu Mahesh - sm95@cornell.edu - 110 Thurston Hall - 5-4077
	Marianno Garcia - ggarcia@tam.cornell.edu - 306 Kimball - 255-7108
Lab Supervisor:	Jason Cortell, Kimball 218, 255-9172, jbc2@cornell.edu. See Jason about problems with lab equipment, your lab TA about lab questions, and Andy Ruina about lab content and policies.

Pre-requisites, Co-requisites

Math:	Math 293 is a pre-requisite, Math 294 is a co-requisite. Competence with material from these and earlier courses is needed, including vectors, simple ODEs, basic matrix algebra (including eigenvectors), and 2D and 3D integrals.
T&AM 202	T&AM 202 is not a formal pre-requisite but competence at dynamics depends on competence at statics.

Printed Resources

Required Text:	The text, AN INTRODUCTION TO DYNAMICS by Rudra Pratap and Andy Ruina, is available from Andy Ruina after lecture on 1/21 for $25 (or an older version for $20). A course fee of $20 covers the lab manual, the license of WORKING MODEL, and other handouts. If you do not want the text, you can just pay the $20 course fee. Use cash of a check made out to your favorite nonprofit organization, CORNELL UNIVERSITY. Summary: $20 for no book, $40 for an old book, and $45 for a new book.
	Many Engineering Dynamics text books contain much of the material in this class, though in a different order. Some of these books will be on reserveat the library. Statics and Math texts may also help.
Lab Manual:	The Lab manual and scheduling information will be distributed.
MATLAB book:	GETTING STARTED WITH MATLAB by Rudra Pratap ($\approx$$15) is required.

Computers

What kind:	*MATLAB*, a calculating and plotting program, is available for all engineers in Upson Hall on MACs and in Hollister Hall on PCs. Lecture examples, prelims, and final exam will use MATLAB. But you may use any computer and program for the parts of homework which are aided by computers or nice plotting. Basic, C, Fortran and Pascal are fine if you know (or learn) how to do matrix operations, solve ODEs and make plots with them. Symbolic packages (eg, Maple, Mathematica, or MACSYMA) are also fine but are harder to learn. If you do homework successfully without MATLAB we will make alternative arrangements for your exams.
	WORKING MODEL, a dynamics simulation program, is available on the Upson MACs and Hollister PCs. A demonstration version is free and fully functional, you just can't save or print. WORKING MODEL will be used in the lecture and homework, and possibly on the prelims and final exam.
Write your name:	For every page of computer work you turn in, you should have the computer write your name. That is, include your name in program comments, figure titles, data tables, etc. Use a highlight pen or colored underline to help the TAs find your name in this output.

Office Hours

(to be scheduled) You are encouraged to make use of the office hours. You may learn more if you struggle with a problem for a while before getting help. If you need remedial or tutorial help you might also get this in office hours from other students or from the course staff. Tutorial help can also be arranged through the engineering advising office in Olin Hall. You may also just come study in Thurston 102 which should never be locked. If you find you are catching on to the material you are encouraged to sharpen your skills further by helping others.

General Policies

Style of Work: All work should be clearly presented. The work should make sense on its own, without reference to the initial problem statement.

A problem will not be considered done correctly unless a correct free-body-diagram has been drawn (if appropriate), vectors are notated as such, all signs have been defined by an appropriate sketch or words, and the dimensions of all physical quantities are correctly presented. *We will not be sympathetic to complaints about our grading of work that does not follow these guidelines.*

Homework: Homework assignments are due on Wednesdays in section. Homework, like all other work, should follow the style guidelines above.

You are encouraged to work with others on homework. You will learn more by explaining to and learning from other students. State clearly on the front of your homework, and in your homework text, what help you have received and from whom (including faculty, TAs, friends and books), no credit will be taken away from you for receiving help, but not clearly acknowledging help is a violation of the code of academic integrity.
Homework may not be graded carefully.

Extra credit: If something catches your fancy you can do a project and get credit for it. The projects can involve experiment, model construction, pencil and paper work, library work, or numerical calculation. The resulting project reports should be clear, interesting, relevant to the course, and of a length between 1 and 10 pages. If a topic occurs to you discuss it with your lecturer or TA.
If you ask a content related question in lecture, or catch a mistake on the board, write down on a piece of paper: your name, the date, the time, your question, and the answer you got. Hand this in to your lecturer. You get one bonus % point for the first such, .5 for the second, .25 for the third, etc..

Exams and Grading: There will be 3 prelims with 3 problems each and a final exam with 5 problems. We will provide the 4 pages from the text inside covers as an aid at the exams.
Your semester's homework grade will replace your lowest prelim grade if it helps.
Your course grade will be based on a number scaled with these weights: Prelims/homework (60%)+ Final exam (25%)+ Lab (15%)+ TA bonus (5% max) + other bonuses = 100 some %.

Work load We expect that a 50 percentile student (in background and ability) working for a B- to C+ grade will spend an average of about 5 hours per week doing homework, about 4 hours for each of four lab reports, and about one hour (averaged through the semester) on prelim studying. That is, the median out-of-class work load for the median student is expected to be a little more than 7 hours per week.

Academic Integrity
The standards of academic integrity are explained for each component of the course in the various handouts. A common theme is that you must not represent work as your own which is not your own, that is you must acknowledge (cite) all information you use to do your work. This includes clearly identifying, faculty, TAs, students, notes, or books which you used to do your work, and the nature of the help that you received.

Students caught violating the code will be introduced to the academic integrity violations procedures and penalties. We strictly enforce these procedures for the ease of mind of students who do not cheat.

If you feel that the code of academic integrity is not being well maintained please let us know how. You may inform us anonymously and you need not name or implicate any individual.