DEPARTMENT: MATHEMATICS

<table>
<thead>
<tr>
<th>COURSE #:</th>
<th>MAP 3305, 3 credits</th>
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<tr>
<td>COURSE TITLE:</td>
<td>Engineering Mathematics I</td>
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<tr>
<td>TYPE COURSE:</td>
<td>Required</td>
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<tr>
<td>TERMS OFFERED:</td>
<td>Fall, Spring, Summer</td>
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<tr>
<td>PREREQUISITES:</td>
<td>MAC 2313, Calculus with Analytic Geometry III; or MAC 2312, Calculus with Analytic Geometry II with a grade of B or better.</td>
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FALL SEMESTER 2007

MAP-3305 section 01, Engineering Math I, 3 units
MWF, 10:10-11:00, room HCB 315
Help Session: to be announced.

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Office Hours:
MW 11-12, MWF. Or by appointment.

Prerequisites:
Calc II with a grade of B- or better, or Calc III with a grade of C- or better.

COURSE GOAL: Learn the fundamentals of Ordinary Differential Equations (ODE’s) and Linear Algebra. ODE’s and Linear Algebra lead to applications in Physics, Engineering, Meteorology, Oceanography, geography, Computer Science, Financial Math, and Biology.

COURSE OBJECTIVES: Matrix manipulation, inverses, basis, eigenvalues and eigenvectors, first order ODE’s, second order linear ODE’s, Laplace transform.

TEACHING PHILOSOPHY: Learning in Engineering Math will only occur by doing. It is recommended that students rewrite their notes after each lecture. Problems either assigned to be done in-class or as homework should be taken very seriously. Students are welcome to form homework study groups, although each student must turn in their own work.

Text:

CALCULATOR: On tests, a graphing calculator, a calculator that can do “computer algebra”, or a programmable calculator is NOT allowed. A simple, nonprogrammable, scientific ($10) calculator is allowed for tests. On other class meetings please bring any calculator.

STUDENT RESPONSIBILITIES:
Participation Throughout each week, you shall be assigned “in-class group homework” assignments. Each assignment is worth a maximum of 1 or 2 extra credit points. Each member of the group has to participate in order for the group to get its extra credit points.

Homework Each homework assignment is worth 10 points maximum. Homework assigned on one day, is due at the beginning of the next class meeting. Just one problem from each assignment shall be graded. Students may form study groups, but every student must turn in their own work. As a note, students can discuss the problems with other students. It is certainly valid to discuss difficult points of...
clarification, and the like. The work, should be each students’ own work though. At the end of the
semester, students will automatically receive 40 points towards their homework score. This is to cover possible sickness, or other emergencies in which a student must miss a class. If a student has to miss more than 4 homeworks, then the extra missing homework may be excused if you present sufficient written evidence of extenuating circumstances beyond your control. Family social events, rides leaving early, etc. are not acceptable. Documented medical excuses must explicitly state that you should be excused from class. If a homework is excused, then the missing homework score shall be replaced by the average of the attempted homeworks.

**quizzes**
Each quiz is worth 10 points. There will be up to two (easy) quizzes given per week. At the end of the semester, students will automatically receive 20 points towards their quiz score. This is to cover possible sickness, or other emergencies in which a student must miss a class. If a student has to miss more than 2 quizzes, then the extra missing quizzes may be excused if you present sufficient written evidence of extenuating circumstances beyond your control. Family social events, rides leaving early, etc. are not acceptable. Documented medical excuses must explicitly state that you should be excused from class. If a quiz is excused, then the missing quiz score shall be replaced by the average of the attempted quizzes.

**exams**
There will be 2 unit exams, and one comprehensive final exam. NO MAKE-UP EXAMS WILL BE GIVEN. An absence from a unit exam may be excused if you present sufficient written evidence of extenuating circumstances beyond your control. Family social events, rides leaving early, etc. are not acceptable. Documented medical excuses must explicitly state that you should be excused from class. If a unit test absence is excused, your final exam grade will be used in its place. If you miss the final exam, you have a VERY BIG PROBLEM. Each unit exam is worth 200 points. The final exam is worth 300 points.

**grading breakdown**
Each quiz and homework assignment is worth 10 points.
Each unit exam is worth 200 points. The final is worth 300 points.

Test Schedule:
unit exam 1 Wednesday, October 3.
unit exam 2 Friday, November 9.
Final Thursday, December 13, 7:30am-9:30 (cumulative)

Grading scale:
90 percent or higher is an A
80-89 percent is a B
70-79 percent is a C
60-69 percent is a D
59 percent or lower is an F

**TENTATIVE Text Reading Schedule:**
Week chapter
1,2,3 1
4,5,6 2
7,8 6
9,10,11 7
12,13,14 8

**official holidays:** Monday, September 3 (labor day), Monday, November 12 (Veterans day), November 22-23 (thanksgiving)

**ACADEMIC HONOR CODE:**
A copy of the University Academic Honor Code can be found in the current Student Handbook. You are bound by this in all of your academic work. It is based on the premise that each student has the responsibility (1) to uphold the highest standards of academic integrity in the student’s own work, (2) to refuse to tolerate violations of academic integrity in the University community, and (3) to foster a high sense of integrity and social responsibility on the part of the University community. You have successfully completed many mathematics courses and know that on a “test” you may not give or receive any help from a person or written material except as specifically designed acceptable.
Out of class you are encouraged to work together on assignments but plagiarizing of the work of others or study manuals is academically dishonest.

ADA STATEMENT:
Students with disabilities needing academic accommodations should: (1) register with and provide documentation to the Student Disability Resource Center (SDRC); (2) bring a letter to the instructor from SDRC indicating you need academic accommodations. This should be done within the first week of class. This and other class materials are available in alternative format upon request.