

MATH 303 - Section 002

Mathematics for Engineering II

Syllabus - Winter 2012

Professor: Lennard Bakker

Office: 366 TMCB

Office Phone: 801 422 5882

Email: bakker@math.byu.edu

Office Hours: TBA

Texts: *Elementary Differential Equations and Boundary Value Problems, 9th Ed.*, by Boyce and Diprima

Course Meeting: Daily, 3:00-3:50, in room 135 TMCB

Course Description: In this course, you will continue to learn the mathematical foundations necessary in the study of science and engineering. Topics include ordinary differential equations, partial differential equations, and Fourier analysis.

Course Website: There is a course website at <http://www.math.byu.edu/~math303> for all sections of Math 303. It contains most of the information about and material for this course, such as: how to contact your professor; the course schedule; homework information; and lesson outlines. You should check this site regularly, especially for announcements.

Lecture Schedule: You will be given a paper copy of the lecture schedule, which includes the homework assignments and due dates. This course schedule lists the specific topics that will be covered on each day and will be available on the course website: go to the website, then click on LECTURE SCHEDULE.

Outcome Statements: You will be given a paper copy of the course's outcome statements, or learning expectations. This is your study guide for examinations. A complete list of outcome statements will be available on the course website: click on OUTCOME STATEMENTS.

Homework: Homework will be assigned almost every day the class meets. A list of the homework is available at the course web page (click on HOMEWORK INFORMATION). You are encouraged to work with other students in the class by discussing these problems. However, the assignment that you hand in should be your own work; i.e., when you write up a problem you should not look at anyone else's work (copying does constitute cheating!). These assignments are generally due in class two class days after being assigned.

Each homework assignment is worth 30 points: 20 points are for four problems that are graded, and ten points are for attempting the rest of the problems on the assignment (two point deduction for each question not attempted). Each graded problem is worth up to 5 points: 0 points for no attempt or for unreadable work, 1 points for something, 2 points for more than something, 3 points for some substance but lacking all the details, 4 points for a nearly complete and correct solution, and 5 points for a neatly written, complete, and correct solution.

Late work will be accepted, but only for 50% of earned credit. The deadline for late homework is one week after the return of the exam to which the homework applies, except for the last exam where the deadline is the last day of classes.

Homework listed as *Exam Exempt* in the Outcome statements will not be tested on examinations. Printouts of direction fields and other graphs needed for homework problems are contained in the Outcome Statement handout. Supplemental problems referred to in the homework assignments as **S#** are located in the outcome statements.

Exams: There will be 4 exams and the final exam. The final exam will be comprehensive. *Exams 1, 2, 3, 4 will not be available after 5 p.m. on the last day they are offered.*

<u>Test</u>	<u>Location</u>	<u>Dates and Time</u>
Exam 1	Testing center	4 p.m. Fri. Jan. 20 through 5 p.m. Tues. Jan. 24.
Exam 2	Testing center	4 p.m. Fri. Feb. 17 through 5 p.m. Tues. Feb. 21.
Exam 3	Testing center	4 p.m. Fri. Mar. 9 through 5 p.m. Tues. Mar. 13.
Exam 4	Testing center	4 p.m. Fri. Mar. 30 through 5 p.m. Tues. Apr. 3.
Final Exam	Testing Center	Fri. Apr. 14-Thurs. Apr. 19.

In the event that you take but do not pass Exam 1,2, or 3 with a score of 70% or higher, there is a retake exam that may allow you to raise your exam score up to 70% (but not higher). To take advantage of this opportunity, you will need to

1. notify your instructor within two class period after exams have been returned to the class,
2. submit all of the outstanding homework on material covered by the exam, and
3. attend two hours of remedial sessions with a TA.

This will require initiative and a significant investment on your part; therefore, it will definitely be better for you not to score lower than 70% in the first place.

NO CALCULATORS OF ANY KIND ARE PERMITTED FOR EXAMS.

Grading: Your final grade will be assessed in the following way:

Homework 25%, Exams 1 - 4 50%, Final Exam 25%.

There are 120 homework points of extra credit available – 30 points for each semester exam review sheet that is graded on a “did you attempt each problem” basis.

Letter grades will be assigned as follows:

	B+	= 89-87%,	C+	= 79-77%,	D+	= 69-67%,		
A	= 100-93%	B	= 86-83%,	C	= 76-73%,	D	= 66-63%,	E = 59-0%.
A-	= 92-90%	B-	= 82-80%,	C-	= 72-70%,	D-	= 62-60%,	

Presentations: Faculty from the College of Engineering and Technology, and from the Physics and Astronomy Department will give four presentations during the semester. These presentations will demonstrate how the mathematics you are learning can be used to solve contemporary problems in engineering and science. *Attendance at each presentation will be counted as one homework assignment. Thus attending all four presentations will give you 120 points towards your homework score.*

Miscellaneous:

PREVENTING SEXUAL HARASSMENT. Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds. The act is intended to eliminate sex discrimination in education and pertains to admissions, academic and athletic programs, and university-sponsored activities. Title IX also prohibits sexual harassment of students by university employees, other students, and visitors to campus. If you encounter sexual harassment or gender-based discrimination, please talk to your professor; contact the Equal Employment Office at 801-422-5895 or 1-888-238-1062 (24-hours), or <http://www.ethicspoint.com>; or contact the Honor Code Office at 801-422-2847.

Students with Disabilities. BYU is committed to providing reasonable accommodation to qualified persons with disabilities. If you have any disability that may adversely affect your success in this course, please contact the University Accessibility Center at 422-2767. Services deemed appropriate will be coordinated with the student and instructor by that office.

Children in the Classroom. The study of mathematics requires a degree of concentration and focus that is exceptional. Having small children in class is often a distraction that degrades the educational experience for the whole class. Please make other arrangements for child care rather than bringing children to class with you. If there are extenuating circumstances, please talk with your instructor in advance.