

Ma 214 - 01 Spring 2008

Policy and Information

Instructor: H. C. Howard.

Office: POT 805; phone 859·257·4874.

Office Hours: 2pm to 4pm on Tuesday and Thursday; and by appointment.

The text for this course is 'Elementary Differential Equations' (8th ed.) by Boyce & DiPrima. The course will cover selected sections and topics from Chapters 1-3, 5, 7 & 9 (about thirty percent of the course will be spent on an introduction to phase plane analysis).

There will be three 'hour' exams, in class, on February 6th, March 3rd, and April 2nd, and a 'two hour' final exam on May 1st, 2008. Each hour of examination is worth 100 points. Some homework (HW) will be collected each week for grading and prompt return to the student. An 'Instructor Grade' (IG) for each student, worth 100 points, will be determined by the student's modified HW average. A 'modified average' is defined as the (classical) average (of a set of numbers) divided by .95. Letter grades determined by the (standard) algorithm: student average $\geq 90 \Rightarrow A$, $90 > \text{student average} \geq 80 \Rightarrow B$, etc. The definition for student average is: $(\sum_{i=1}^{i=5} \text{hour}_i \text{ exam score} + \text{IG})/6$.

The class average for each exam (and only each exam) shall be greater than or equal seventy (70), with student scores adjusted peremptorily, if necessary, to ensure this value holds. In any computation involving a 'class average', scores less than forty (40) will be omitted. Thus if in a class of 5 students there are scores of 38, 45, 67, 89 and 92, then the 'class average' is $(45+67+89+92)/4 = 73.25$.

Late HW papers not accepted. It is suggested you save your HW papers, and exams until the end of the semester, for review purposes, and as evidence of their existence and scoring. The educational value of HW and exams is at least doubled if incorrect work is redone until correct. See the instructor for suggestions and help on how to proceed efficaciously in this matter.

Note the list of background concepts for this course on the back of this sheet. You should have at hand a source or reference, such as a calculus text, for the items listed.

All rules and regulations in the current University of Kentucky Student Rights and Responsibilities handbook are in full force throughout this course. This handbook is available online at:

<http://www.uky.edu/StudentAffairs/Code/>.

The student is responsible for anything said in class, and, during class, rendering temporarily inert any personal electronic communication devices.

H. C. Howard

Wednesday, January 9, 2008

Ma 214-4 Background/Prerequisites

You should be familiar with the following mathematical concepts and techniques:

1. Limits and continuous functions.
2. Ordinary and partial derivatives of a function.
3. Implicit functions and implicit differentiation.
4. Definition and properties of the Riemann integral.
5. The fundamental theorem of calculus.
6. Inverse functions.
7. The chain rule for functions of one or several variables.
8. Evaluation of line integrals in the plane.
9. Integration and differentiation of the 'elementary functions', and all trigonometric functions; integration of rational functions; integration by parts; integration by substitution.
10. Infinite series; Maclaurin series.
11. Parametric equations.
12. Vectors in the plane.