

Math 23 – Differential Equations – Spring 2013

Time: 12 period: MWF 12:30-1:35, x-hour Tu 1:00-1:50. *We will use many of the x-periods.* I will announce on Mondays whether we will meet during the next day's x-hour.

Room: 105 Kemeny.

Texts:

1. Mark Krusemeyer, *Differential Equations*, available at Wheelock Books.
2. Jirí Lebl, *Notes on Diffy Qs*, available free online at (<http://www.jirka.org/diffyqs/diffyqs.pdf>).
3. Various handouts posted on Blackboard under Course Materials.
(Go to (<https://www.dartmouth.edu/~blackboard>) and use your Dartmouth email authentication.)

Instructor: David Webb, 309 Kemeny.

Office hours: To be announced.

Overview Differential equations, which relate the rates of change of a function with respect to one or more of its variables to the values of the function itself, are the language of modern science, and have been since the work of Newton that ushered in the modern scientific era. Math 23 is an introduction to ordinary differential equations, along with a very brief glimpse of one or two important partial differential equations.

Tutorial schedule: To be announced. The tutor is Ewa Infeld.

Free advice: Mathematics is a very difficult subject to absorb in “real time,” and even professional mathematicians often get lost in lectures. Thus, in order to optimize the utility of the lectures, it is very important to have read and thought about the reading assignment *before* the lecture, jotting down notes and questions as you go. This will prepare you for what is to come in the lecture, will make the lecture *much* easier to follow, and will perhaps raise questions in your mind that you can ask during the lecture if they are not already resolved. After the lecture, a careful rereading of the assignment will solidify the concepts.

Homework: Weekly homework assignments will be posted on Blackboard. Homework will be collected on Fridays. One homework grade will be dropped, but late homework will not be accepted.

Grading: There will be two midterm exams and a final exam. Homework will be worth 20% of the final grade. Each of the midterm exams will be worth 20%, while the final will be worth 35%. The remaining 5% of the grade will be based upon class participation, quizzes, etc.

Honor Principle: You are encouraged to work together on homework. However, the final writeup should be your own. On exams, all work should be entirely your own; no consultation of other persons, printed works, or online sources is allowed without the instructor's explicit permission.

Exam schedule (tentative): The two midterm exams are tentatively scheduled for April 17 and May 15.

Students with disabilities: Any student with a diagnosed learning disability requiring accommodations should see me as early in the term as possible. All discussions will remain confidential, although the Student Accessibility Services office may be consulted.