Math 237 – Differential Equation  
Fall 2007

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Lectures: MWF 3:00-3:55, NP 202

Goals: As the name suggests, we will be studying equations that involve derivatives in some way. Not only is this a logical next step after learning differentiation and anti-differentiation in calculus class, the understanding of this type of equations is crucial in a surprising range of applications. Many fundamental laws of physics and chemistry, such as gravity and reaction rate laws, are expressed in terms of differential equations. Increasing, differential equations are used to better understand biological subjects such as immunology and epidemiology. In this course, we will learn, first of all, to solve differential equations. More importantly, we will aim to understand their meaning, and what our solutions may tell us about the real world problems that generate them.


Prerequisites: Math 232 and Math 204 with a grade of C- or better; Math 204 may be taken concurrently. You will expected to be fluent with material from your calculus courses throughout the course.

Exams: There will be three exams during the term, and a comprehensive final exam. The exam dates are

Exam I: Wednesday, September 26th  
Exam II: Wednesday, October 24th  
Exam III: Monday, November 19th  
Final: Tuesday, December 11th, 7:00p

All exams except the final are in the normal class time and place. There will be no makeup exams, except in situations where it is required by the colleges. Note the dates now and let me know immediately of any conflicts. Travel plans for Thanksgiving or other holidays do not count as excuses.

Homework: Homework will be assigned daily and collected weekly. If needed, quizzes will be given and counted as part of the homework score. All work must be shown on homework and quizzes to receive full credit, and these problems should be completed on your own. No late homework will be accepted.
More about Homework: In addition to the problems you will turn in, I have provided a list of suggested problems. These are the problems I feel will help you the most to understand the material and perform well on the exams. Feel free to work together on these problems, and I recommend that you try these problems before the problems you will hand in.

As a rule, if you do poorly on the homework, you will also do poorly on the exams. Do not let this happen to you. Be diligent in keeping up with the homework and the reading. The stronger grasp of the preceding material, the easier the later topics will be.

Grades: The lowest homework score will be dropped, and the average of the remaining scores will count as 100 points. Each exam, including the final, will also count as 100 points. Of these five scores (homework plus four exams), the lowest will be dropped and the average of the remaining four will be your grade for the course. There is no set grading scale, but average score for the course will generally earn a B-.

Office Hours: I have listed my proposed office hours on this syllabus. Let me know if you cannot make an of these, and I will try to establish a time that you can attend. I am also available by appointment; just let me know you would like to meet, and we will set up a time. I am here to help you succeed in this course.

Blackboard: All handouts and other resources for this class can be found on Blackboard (courses.hws.edu). There, you will also find discussion boards and announcements about upcoming events in class and in the wider math community. This is also a great place for you to give me feedback about the course, anonymously. Please check in here regularly so that nothings slips past you.

Attendance: You are expected to be present in class and to participate actively. Playing an active role in class will improve your performance on exams and give you a chance to get your questions answered. Excessive absence or lack of participation will negatively affect your grade.

The Center for Teaching and Learning: Hobart and William Smith Colleges encourage you to seek the academic collaboration available to you to demonstrate your best work. Students who would like to enhance their study skills, writing skills, or have any academic inquiries can contact the CTL. If you are a student with an identified disability and you would like to receive accommodations, please provide me with the necessary documentation from the CTL at the start of the semester (students with disabilities have to register at the Center), so that I can best accommodate your needs. CTL staff encourages each of you to stop by Harris Hall to learn what is available to you at this academic resource. Please contact the CTL at 781-3351 to make an appointment or stop by Harris Hall (on South Main, next to Merritt Hall) to meet with Center Staff.