

MATH 241-010, 011, 012
MWF 8:00-8:50, PRN 115

Analytic Geometry and Calculus A
Fall 1997

Web Page: <http://www.math.udel.edu/~edwards/download/m241/f97home.html>
Newsgroup: udel.fall97.math241-010

Instructor: Prof. D. A. Edwards
EWG 511
TA: Ray Viglione

Office Hours: M 2-3, W 10-11 or by appointment
x1871, edwards@math.udel.edu
Office Hours: TR 1-2:30
viglione@math.udel.edu

Introduction

Welcome to Analytic Geometry and Calculus A! Since most of you are not mathematics majors, the focus of this course will be on the *applications* of calculus, rather than the *theory* behind it (except when explaining the theory will enhance your understanding of the concepts). I will be passing around a sheet today asking each of you what you think your major might be. Then I will try to present examples from those subjects so that you can see how calculus is applied to your area of interest.

The text for this course is *Calculus*, 9th ed., by Thomas and Finney. **The text is required**, since you will be assigned both reading and homework problems from the book. You may also wish to purchase the study guide for the text. In addition, I may also be lecturing from various other sources, so class attendance and participation is necessary for successful mastery of the material.

Though not required, you may find a scientific calculator quite useful. You may use calculators for all homework assignments. Unless expressly told otherwise, standard scientific calculators may be used for quizzes and exams as well, though graphing and programmable calculators may not.

You should address most questions to your recitation section leader. However, if you are continuing to have difficulty, or have a question, problem, or interesting application you would like me to address in class, you may contact me during my office hours or make an appointment. **Extra copies of handouts are available outside 511 Ewing.**

You may bring a tape recorder with you to class, if you wish; however, unattended tape recorders will not be permitted. There will be no makeup classes for snow days.

Electronic Communication

The Web page for this course is listed above. There you will find copies of handouts available for downloading, as well as any important announcements (corrections to typographical errors, etc.). Announcements will also be posted to the newsgroup for the course, which is also listed above. The newsgroup gives you a chance to collaborate electronically, asking questions of your fellow students, etc. If I find a question being repeatedly asked, I will try to address it in the next class session. Though the group is unmoderated, I will be checking to make sure that answers to homework assignments and other types of inappropriate material aren't being posted. No anonymous posting is allowed. For more information on how to use the newsgroup, contact the Help Center (x6000).

Exams

There will be four exams in the course. The first three will be 45 minutes long and will take place during a regular lecture hour. The final exam will be 110 minutes long. Please be prepared to show picture identification in order to enter the examination room. Attached to each examination will be a course evaluation form, so that I may receive your suggestions for how the course could be improved. These forms will be seen only by me, so if you have comments that you wish the department to hear, please contact them directly.

Quizzes

Quizzes will be given occasionally on Tuesdays in recitation section. **NO MAKEUP QUIZZES WILL BE GIVEN!** They will take fifteen minutes each, and you will need to bring your own paper. They will cover any material presented in lecture up to the week before the quiz. Before computing your quiz average, I will drop your lowest quiz score.

Recitation Sections

In addition to the lectures, you are also registered for two recitation sections meeting on Tuesday and Thursday. In these sections the TA will present solutions to problems which parallel closely the ones assigned for homework. He may also answer any questions you might have about the material covered in lecture that week. The TA can **NOT** address specific questions about any homework problems not already turned in.

Assessment

Your grade for the course will be determined in two stages. First your *raw score* will be calculated from your exam scores, with the final counting as the equivalent of two exams. However, if including your homework and/or quiz scores will improve your score, I will let each count for 10% of your grade. Therefore, doing the homework, attending recitation sections, and taking the quizzes *can only help* your grade. (In the past, it has been my experience that the vast majority of students improve their grades significantly by using their homework and quiz scores.)

Then each of the raw scores will be scaled to determine final grades. During this scaling process I will consult the TA to see if he thinks that anyone's raw score does not adequately reflect their knowledge of the material. Therefore, it is beneficial for you to attend recitation sections regularly and get to know your TA.

Homework

Homework will be distributed on Fridays during lecture (the first assignment is attached to this introduction), and it will be due in your recitation section the following Thursday. The homework will cover material up through the Monday after it is distributed. **ABSOLUTELY NO LATE HOMEWORK WILL BE ACCEPTED!** If you must miss a due date because of University business, it is your responsibility to make sure the homework gets to the TA *before* the due date. Since calculus is a subject where the material for one section builds on the section before, it is critical that you keep up to date on the homework: hence the stringent policy. However, to calculate your semester-long homework average, I will drop your two lowest

homework scores. Therefore, low scores for assignments where you were pressed for time can be erased as long as you don't have too many of them.

Though you may not copy directly from another's paper or use someone else's ideas as your own, I encourage you to discuss the homework problems with your classmates. Any scientific endeavor is rarely done in a vacuum; therefore it is to your advantage to learn the benefits of collaborating. Model homework solutions will be placed on reserve in the library after the assignment is due. Hopefully these will assist you in learning the material.

Homework assignments should be folded like a book with the following information on the "front cover:"

Name
Section Number
Assignment Number
Date

You will turn in your assignments this way so that the grader can put your grade on the inside, thus ensuring your privacy. I will make every effort to ensure that your graded homework is returned in a timely manner.

Each homework assignment will consist of ten questions. Of those, some randomly selected problems will *not* be graded. For these questions, you will receive one point if you attempted the problem. For the problems that will be graded, you may receive up to four points, depending on the completeness and accuracy of your solution.

Obviously, I can assign only a select few homework problems to be turned in. Therefore, I choose ones which, if mastered, show adequate understanding of the material. The examinations will largely be based on the material covered in the homework assignments. However, you are encouraged to try other problems in the book for practice.

Tutoring

Tutoring is available at the Preparatory Mathematics Tutorial Lab in 009 Pearson.

Tentative Schedule

Note: This is only a tentative schedule; there may be small deviations from it.

September 3-5: preview chapter

September 3: Homework 1 distributed

week of September 8: preview chapter, sections 1.1-1.2

September 11: Homework 1 due

September 12: Homework 2 distributed

week of September 15: Sections 1.3-1.5

September 16: Quiz 1 (covers the preview chapter, sections 1.1-1.2)

September 18: Homework 2 due

September 19: Homework 3 distributed

week of September 22: Sections 3.5, 1.6-2.1

September 25: Homework 3 due

September 26: Homework 4 distributed
week of September 29: Sections 2.2-2.3
October 1: Exam I (covers the preview chapter, chapter 1, section 3.5)
week of October 6: Sections 2.4-2.6
October 9: Homework 4 due
October 10: Homework 5 distributed
week of October 13: Sections 2.7-3.2
October 14: Quiz 2 (covers sections 2.1-2.6)
October 16: Homework 5 due
October 17: Homework 6 distributed
October 22-24: Sections 3.3-3.4
October 23: Homework 6 due
October 24: Homework 7 distributed
October 27: Review session for exam II
October 29: Exam II (covers chapter 2, sections 3.1-3.3)
October 31: Section 3.6
week of November 3: Sections 3.6, 3.7, 4.4
November 6: Homework 7 due
November 7: Homework 8 distributed
week of November 10: Sections 4.5, 4.6, 4.1
November 11: Quiz 3 (covers sections 3.4, 3.6, 3.7, 4.4)
November 13: Homework 8 due
November 14: Homework 9 distributed
week of November 17: Sections 4.7, 4.3, 4.8
November 20: Homework 9 due
November 21: Homework 10 distributed
November 24: Exam III (covers sections 3.4, 3.6-4.1, 4.4-4.7)
November 26: Section 5.1
week of December 1: Sections 5.2-5.4
December 4: Homework 10 due
December 8: Section 5.5
December 9: Quiz 4 (covers sections 4.3, 4.8, 5.1-5.4)
December 10: Formal Review Session
December 11: Informal Review Session
December 16: Final Exam, 3:30-6:30