

MATH 241-013, -014, -015
MWF 12:20–1:10, SHL 131

Analytic Geometry and Calculus A
Fall 2005

Web Page: <http://www.math.udel.edu/~edwards/download/m241/f05home.html>

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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*, 5th ed., by Stewart. **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 any type of calculator for all homework assignments. You may use standard scientific calculators for quizzes, but not graphing or programmable calculators. No calculators may be used for examinations.

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 at the Web page listed above.**

Please silence portable phones, pagers, etc. before entering the classroom. 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.). Also at the URL

<http://www.math.udel.edu/~edwards/download/suggest.html>

you will find an anonymous suggestion box.

Particularly important messages regarding the course may also be e-mailed to you directly. In addition, you may send me e-mail with questions regarding the course, homework assignments, etc. For more information on how to use electronic resources, contact the Help Center (x6000).

Exams

There will be four exams in the course; the dates are listed on the attached schedule. **NO MAKEUP EXAMS WILL BE GIVEN!** The first three will be 45 minutes long and will take place during a regular lecture hour. The final exam will be two hours long. **You will need a small blue book for each exam.** 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.

When the exams are returned, they will have a numerical score and a letter grade on them. The numerical score is your score for the exam; *the letter grade is your grade for the course to that point, including all quiz and homework scores.*

Quizzes

Quizzes will be given occasionally on Tuesdays in recitation section; their dates are listed on the attached schedule. **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.

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.

When completing each homework assignment, you should rely only on the material I have presented thus far in the class, even if you have already taken calculus. 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 Morris 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—Edwards
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.

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.

Tutoring

Tutoring is available at the Preparatory Mathematics Tutorial Lab in 101C Ewing. In 116 Ewing, the department maintains a small list of people available for individual fee-based tutoring. Group tutoring is available through the Academic Services Center, which also maintains a list of tutors.

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.

Tentative Schedule

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

August 30–September 2: appendices A–D

August 31: Homework 1 distributed

September 5: Labor Day (no lecture)

September 6–9: appendices A–D, sections 1.1, 1.3, 2.1

September 8: Homework 1 due

September 9: Homework 2 distributed

week of September 12: sections 2.1–2.3, 4.4

September 13: Quiz 1 (covers appendices A–D, sections 1.1, 1.3)

September 15: Homework 2 due

September 16: Homework 3 distributed

week of September 19: sections 4.4, 2.5–3.2

September 22: Homework 3 due

September 23: Homework 4 distributed

week of September 26: sections 3.2–3.5

September 28: Exam I (covers appendices A–D, sections 1.1, 1.3, chapter 2, section 4.4)

week of October 3: sections 3.5–3.8

October 6: Homework 4 due

October 7: Homework 5 distributed

week of October 10: sections 3.8–4.1

October 11: Quiz 2 (covers sections 3.1–3.7)

October 13: Homework 5 due

October 14: Homework 6 distributed

week of October 17: sections 4.1–4.3

October 20: Homework 6 due

October 21: Homework 7 distributed

October 24: Exam II (covers chapter 3, section 4.1)

October 26: sections 4.3, 4.5, 4.7

October 28: Fall Recess (no lecture)

week of October 31: sections 4.7, 4.9–5.1

November 3: Homework 7 due

November 4: Homework 8 distributed

week of November 7: sections 5.1–5.3, 8.7

November 8: Quiz 3 (covers sections 4.2, 4.3, 4.5, 4.7, 4.9, 4.10)

November 10: Homework 8 due

November 11: Homework 9 distributed

week of November 14: sections 5.3–5.5

November 16: Homework 9 due

November 18: Homework 10 distributed

November 21: Exam III (covers sections 4.2, 4.3, 4.5, 4.7, 4.9–5.3, 8.7)

November 23: section 5.5, 6.1

week of November 28: sections 6.1–6.3

December 1: Homework 10 due

December 2: Supplemental study material distributed

December 5: sections 6.3, 6.4

December 6: Quiz 4 (covers sections 5.4–6.2)

December 7: Formal Review Session