

Syllabus

Calculus and Analytic Geometry 1

Math 207 DE - Fall 2009

Course Title	Calculus and Analytic Geometry 1
Credit Hours	5
Prerequisites	Grade of C or better in Math 140 and Math 141, or Math 143, or placement test, or consent of department chair
Section	207 DE (section number: 21949)
Classes	Monday, Wednesday 1:00 PM - 3:20 PM in Room 3979
Instructor	Marta Hidegkuti e-mail: mhidegkuti@ccc.edu Office: Room 3812
Office Hours:	Conference hours (walk-in) Monday, Wednesday 8:30 - 9 and 12:15 - 12:45 Monday 3:30 - 4:30 Tuesday, Thursday 10:15 - 10:45 or by appointment Advisement hours (by appointment only) Tuesday, Thursday 9 - 10 Thursday 3:30 - 4:30

Web Sites http://faculty.ccc.edu/mhidegkuti/Math207/math207_fa09/Math207.html
In case the Truman web server is down, a copy of the class's web site is maintained at www.martahidegkuti.com

Textbook Calculus I; Jerrold Marsden and Alan Weinstein; Springer-Verlag, 2nd edition, 1985.
ISBN: 0-387-90974-5.

A pdf file of the textbook can be downloaded at a Truman computer from the internet at <http://www.cds.caltech.edu/~marsden/volume/Calculus> For more information on this book, (for example, a list of typos) consult Professor Michael Maltenfort's great web page at <http://faculty.ccc.edu/mmaltenfort/shared/Textbook.htm>. Some topics will be covered by handouts posted on the course's web site.

Calculator

The use of a scientific calculator is strongly recommended. Students are expected to bring the calculator to class. The optimal calculator is **TI-30X II S**. The price of this model is between \$15 and \$20. Do NOT purchase a different calculator if it is significantly more expensive.

Calculator Policy

Any calculator different from TI-30X II S has to be approved by the instructor first. During quizzes and exams, students are not allowed to use a graphing calculator. Students are not allowed to use a cell phone as a calculator any time during class.

Tutoring

The [Tutoring Center](#) is located in room L129. Students are encouraged to seek help and guidance during the course. Students have already paid for this service as part of tuition fees. Please note: in order to receive tutoring, students need to sign up in advance. [The Student Success and Leadership Institute](#) (SSLI) is located in room 1435. SSLI offers free services to students, including tutoring, orientation, help with e-mail account or registration.

Important Dates

First class: Monday, August 24
Labor Day Holiday: Monday, September 7
Exam 1: Wednesday, September 23
Exam 2: Wednesday, October 14
Exam 3: Wednesday, November 11
Last day to withdraw from classes: Monday, November 16
Exam 4 (same as Final Exam): Wednesday, December 9
End of Semester: Saturday, December 12

Attendance Policy

Attendance is an essential part of the course. Regular attendance is expected of all students in the course. Attendance will be taken each class period. Students are expected to be on time and to attend the entire session. Please make every effort to arrive to class on time. If you arrive after attendance has been taken, check at the end of class that your attendance record has been corrected. If you are absent, you are responsible for all work and assignments covered in lecture that day.

No-Show Withdrawal (NSW)

Students who do not attend the first two class sessions will be withdrawn from the class by the instructor and issued an NSW.

Administrative Withdrawal (ADW)

Students will be administratively withdrawn at midterm if at least two of the following apply:

- 1 Less than 70% of assignments up to the midterm have been completed.
- 2 Less than 70% of quizzes and tests up to the midterm have been attempted.
- 3 Less than 50% of class sessions up to the midterm have been attended.
- 4 Student missed 3 consecutive classes.

Withdrawal from the course

Not attending classes does not constitute withdrawal from the course. After midterm, instructors can no longer drop students from the course. If students stop attending classes after the midterm, the instructor can only assign a grade of F. **If you no longer attend classes, it is essential that you stop by at the registrar's office and officially withdraw from the course to protect your average.** The last day for student initiated withdrawal is Monday, November 16. Before withdrawing from the course, students are encouraged to consult the instructor.

Grading Policies

Grading Scale

Grading of all assignments, quizzes, and exams will be based on the following scale.

90-100: A 80-89: B 70-79: C 60-69: D 0-59: F

Midterm Grade

If the Midterm Exam (same as Exam 2) is below 70%, a D or F will be given as final grade. In other words, students must earn a passing grade on the exam to receive a passing grade for the course. If the midterm exam is at least 70%, the grade will be the weighted average of the grades shown below with their weights.

Exam 1: 25% Homework: 10%
Exam 2: 35% Extra Credit Assignments: 5%
Quizzes: 30%

Before determining the grade given for quizzes, the lowest quiz score will be dropped.

Final Grade

If the Final Exam (same as Exam 4) is below 70%, a D or F will be given as final grade. In other words, students must earn a passing grade on the exam to receive a passing grade for the course. If the final is at least 70%, the grade will be the weighted average of the grades shown below with their weights.

Exam 1: 15%	Quizzes - 20%
Exam 2: 15%	Homework: 10%
Exam 3: 20%	Extra Credit Assignments: 5%
Exam 4: 20%	

Before determining the grade given for quizzes, the lowest two quiz scores will be dropped.

Makeup Policy

Without exception, there will be no making up quizzes. Permission to make-up an exam is subject to the discretion of the instructor, and will be granted only in cases of emergency. If an absence is anticipated, the student should notify his/her instructor prior to the absence. Students need to present written documentation to make-up an exam. All make-up exams will take place on Friday, December 4.

Homework

Homework is an essential part of the learning process; do not expect to do well in this course without keeping up with the homework. Homework is expected to be turned in at the beginning of class, stapled, written neatly and legibly, on graph paper. To earn full credit, always show all work. A solution turned in without work shown will receive a maximum of 20% credit. Write as legibly as possible and circle your final answers. Homework assignments will consist of problem sets. Within a problem set please present the problems in the order they were assigned. Homework assignments turned in late will receive up to 50% credit. If an assignment is more than one week late, no credit will be given.

Academic Integrity

Any incident of academic dishonesty may result in actions from assigning a grade of F given for the entire course to expulsion from the college. For further information, please refer to the Student Policy Manual.

General Information

At all times, please treat the instructor, other students, and their opinions with respect.

Before arriving to class, please **turn off all cell phones, pagers, and other loud devices. Please make every effort to arrive on time for class.** Please refrain from talking while the instructor is lecturing. If you need an extensive review (for example, due to absence) of material presented in class, please see the instructor during office hours. Valuable class time can not be spent on assisting one or a few students to the detriment of the entire class. Office hours are designated to address these problems.

Arrive to office hours prepared. If you have missed a class, be sure to obtain and read all class-related material (handouts, text book section, and class notes). Have a list of specific questions.

Please retain all class-related material until you receive your final grade for the course.

Students that register late are responsible for all course work they missed due to their absence.

At all times, email is the fastest and most efficient method to contact the instructor. If you wish to contact the instructor about grades or attendance or other administrative issues please use email. When e-mailing, please use your CCC student account.

Calendar of Events

Please note that the Calendar of Events is subject to change. Last revised: July 19, 2009

	Monday	Wednesday
Week 1	August 24 - Class 1	August 26 - Class 2
Week 2	August 31 - Class 3	September 2 - Class 4 Quiz 1
Week 3	September 7 - No Class	September 9 - Class 5
Week 4	September 14 - Class 6	September 16 - Class 7 Quiz 2
Week 5	September 21 - Class 8	September 23 - Class 9 Exam 1
Week 6	September 28 - Class 10	September 30 - Class 11 Quiz 3
Week 7	October 5 - Class 12	October 7 - Class 13 Quiz 4
Week 8	October 12 - Class 14	October 14- Class 15 Exam 2
Week 9	October 19 - Class 16	October 21 - Class 17 Quiz 5
Week 10	October 26 - Class 18	October 28 - Class 19 Quiz 6
Week 11	November 2 - Class 20	November 4 - Class 21 Quiz 7
Week 12	November 9 - Class 22	November 11 - Class 23 Exam 3
week 13	November 16 - Class 24	November 18 - Class 25 Quiz 9
Week 14	November 23 - Class 26	November 25 - Class 27 Quiz 10
Week 15	November 30 - Class 28	December 2 - Class 29 Quiz 11
week 16	December 7 - Class 30	December 9 - Class 31 Exam 4
December 12 - End of Fall 2009 term		

Last day for student initiated withdrawal: Monday, November 16

Course Information

Course Description: This is the first course in calculus and analytic geometry. It explores various characteristics and equations of conics and covers techniques of differentiation for algebraic and trigonometric functions. It also includes an introduction to the Fundamental Theorem of Calculus. Technology and writing as appropriate to the discipline will be emphasized throughout the course.

Course Objectives:

- Discuss the equations and characteristics of various conics.
- Understand the concepts of a limit, continuity, and differentiability.
- Apply the sum, product, quotient, and chain rules of differentiation.
- Differentiate algebraic and trigonometric functions.
- Apply the concepts of differential calculus to contextual (real-world) situations.
- Understand the definition and basic properties of the Riemann sum.
- Understand the concept of an antiderivative and its role in the Fundamental Theorem of Calculus.

Student Learning Outcomes: Upon satisfactory completion of the course, students will be able to:

- Estimate limits and derivatives graphically and by using tables of values.
- Calculate limits of functions algebraically.
- Calculate derivatives of functions using the definition of a derivative.
- Identify points where a function fails to be continuous or differentiable.
- Calculate derivatives of functions using the sum, product, quotient and chain rules.
- Determine derivatives of functions using implicit differentiation.
- Determine the equation of a tangent line to the graph of a function.
- Approximate changes in a function using differentials.
- Apply the Intermediate, Mean, and Extreme Value Theorems to a function defined on a closed and bounded interval.
- Apply derivatives to problems involving optimization and related rates.
- Analyze the behavior of functions and their graphs using first and second derivatives (e.g., determine local and absolute extrema, concavity, and inflection points).
- Determine antiderivatives of functions.
- Apply the concepts of first and second derivatives and antiderivatives to motion problems.
- Calculate a Riemann sum of a function on a closed interval.
- Evaluate definite integrals by using the Fundamental Theorem of Calculus

Truman College General Education Goal(s): Upon successful completion of this course, students will demonstrate the ability to think critically, abstractly, and logically.