

MATH 155

CALCULUS and ANALYTIC GEOMETRY II



Tue, Thurs: 4:30pm-6:20pm
Room: 3507
Section 1469
Spring 2012

Instructor: Dr. Lemee Nakamura
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Prerequisite: Math 150 with a "C" or better.

Course Description: This course includes advanced integration techniques, improper integrals, infinite series, conic sections, parametric equations and polar coordinates.

Math 155 Student Learning Outcomes:

1. Given a function, apply advanced integration techniques to find the integral of the function.
2. Given an infinite series, analyze convergence.
3. Apply the concepts of differential and integral calculus to polar and parametric functions.

Course Objectives: At the end of the course you should be able to:

- Determine an appropriate integration technique and use it to evaluate given integral.
- Determine the convergence or divergence of a given infinite series.
- Find a power series representation for a given function and determine its interval of convergence.
- Use a power series representation of a function to obtain an approximation for the function at a given value, or to obtain an approximation of the definite integral of the function.
- Sketch graphs of parametric and polar equations.

- Find derivatives when x and y are functions of a parameter. Find arc length of a curve when its equation is given in parametric form.
- Find area and arc length when equations are given in polar form.
- Graph the conic sections and find the equation for a given conic section having been given adequate information about the graph.
- Use appropriate technology to solve problems from the course topics.

Required Text: "CALCULUS, 9th edition" by Larson, Hostetler, Edwards.

Calculators: Although calculators will **not** be allowed on some tests, the use of a graphic calculator is required. In general, the Math Department recommends the TI-83, or TI-83 Plus.

Homework: Homework assignments will be given in class and will NOT be collected. However, please note that the completion of every homework assignment is important to your success in this class. Do not fall behind. Catching up just before a test is extremely difficult!

Quizzes: You will be given a quiz every Thursday, either at the very beginning of the class, before/after the break, or at the end of the lecture. The quiz will be based on your homework problems and topics discussed during the lectures. **Make-up quizzes will NOT be allowed under any circumstances.** I will drop the two lowest quiz scores at the end.

Exams: There will be **3 exams** and a **final exam**. Exams may be given early to students if the circumstances warrant. Please see me at least one week before the scheduled exam date if you wish to take an exam early. **Make-up exams will NOT be allowed!!** Hence, it is extremely important that you are aware of the exam dates. Please remember that there are **NO dropped exams** in this course. Thus, a missed exam counts as a zero.

Exam #1: Sections 8.1~8.7

Exam #2: Sections 9.1~9.6

Exam #3: Sections 9.7~9.10, 10.1, 10.2

Final Exam: May 22nd (Tue) 5:00pm-7:00pm

(Final Exam is cumulative, 10.3~10.6, 6.3 included)

****All students must take the final exam, or they will receive an F in this course grade****

Grading Procedures: Your course grade will be based on the following:

Quizzes: 15% (after dropping two lowest quiz scores)

Exams: 60% (total of three exams)

Final Exam: 25%

<u>Grade</u>	<u>Total Percentage</u>
A	90.00-100.00
B	80.00-89.99
C	70.00-79.99
D	60.00-69.99
F	Below 59.99

Incomplete Grade: Students seeking an "Incomplete" grade must consult with me no later than the week prior to finals. Incompletes will only be considered for unforeseeable, emergency and justifiable reasons at the end of the term, and only upon agreement of conditions for completing coursework.

Pass/No Pass Grade Option: You have the option to choose Pass/No Pass grading for this class. If you choose this option, you must submit a Petition for Pass/No Pass to Admissions & Records by 2/24/12. This option for grading is nonreversible once selected. The petition form is available online, or from Admissions & Records. Students planning to transfer should consult with a counselor before opting for Pass/No Pass to ensure this option is accepted by their intended transfer institutions. Check the MiraCosta College catalog or schedule for more detailed information.

School Holidays: February 17~20, March 19~24

Important Dates:

-Deadline to drop class with no record and receive refund: 2/3/12

-Deadline to file for Pass/No Pass grading option: 2/24/12

-Deadline to drop with a "W" grade (Withdraw): 4/26/12

Attendance Policy: Attendance is an important element in your academic success. If you miss a class, it is your responsibility to learn the material covered the day of your absence

and get the homework assignments and other important information. Office hours may NOT be used to repeat lectures given on class days that you missed. If you miss a class, you must give the assignment due on that day to me personally before class, or another student may turn it in for you during class.

Being Dropped from Class: You may be dropped from the class if you miss more than four lecture hours. You may also be dropped from the class if you are absent on an exam day. If you are ill or have an emergency on the day of the exam, you must speak with me on that day or earlier.

Cell Phones: To demonstrate respect for the rights of others in the classroom, please turn off cell phones or set to vibrate only. If your cell phone "rings," please leave the classroom immediately.

Courtesies:

- When your instructor is speaking, refrain from talking to your neighbors. The noise is distracting and disruptive.
- While in class, focus on mathematics. Save personal conversations for outside the classroom.
- When working with other class members, please be encouraging, positive, and helpful. Be sensitive to the feelings of others. Please avoid criticism and teasing or joking that might be hurtful to others. **RESPECT your classmates!**

Keys to Success:

1. **Ask questions in class:** Please take advantage of my class hours if you need help. If you cannot ask questions in class for some reason, please ask me before or after class. Please do not hesitate to ask. You may also reach my office by phone and email.
2. **Getting Help:**
 - a. **Tutoring/Learning Communities:** Free tutoring is available in the Tutoring Center located in the Library and Information Hub.
 - b. **Study Groups:** Get together with other class members and form a study group which meets regularly to do homework and study.
 - c. **MLC Assistance/Computer tutorials:** Instructors and aids in the MLC are available to answer homework questions that you may have.

Accommodation of Disability: Students with disabilities, whether physical, learning, or psychological, who believe that they may need accommodations in this class, are

encouraged to contact Disabled Students Programs & Services as soon as possible to ensure that such accommodations are implemented in a timely manner. Their phone number is 795-6658 and they are located in Building 3000-Student Services, Room 3009, adjacent to Parking lot 3C.

Academic Honesty: I fully support MiraCosta College's belief that academic honesty is a cornerstone of the educational community. To that end, I demand academic honesty of my students. Students who bring unauthorized material to an exam or copy from someone else's exam/homework will receive a zero on the exam/homework and will not be allowed to drop or replace that exam/homework. This class will be conducted in accordance with MiraCosta College's policy on "Rights and Responsibilities of Students and Staff Members," and basic standards of academic honesty. Cheating, plagiarism, or other forms of academic dishonesty are not acceptable and will not be tolerated. Students are expected to respect and obey standards of student conduct while in class, or on the campus. Charges of misconduct and disciplinary sanctions may be imposed upon those who violate these standards of conduct, or provisions of college regulations.

I look forward to getting to know each of you.

Good luck, enjoy the course, and

Let's have a great semester!!

