

Math 252

Calculus II

Summer 2014

CRN 31569

8:00-10:05am

MW

MOD 101

Instructor: Jessica Giglio

Office: GRV 224

Office Hours: Mon. 1-2pm, Wed. 1-3pm, and by appointment

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REQUIRED MATERIALS

Text with WebAssign: *Calculus: Early Transcendentals, Hybrid, 7th Ed.* by Stewart. ISBN 9781111426682.

Includes multi-term WebAssign access. This text/access is also used for MTH 253, 254, and 255. You can also purchase either one-term or "lifetime of edition" access through WebAssign, which includes eBook access. If you had MTH 251 at COCC recently and used this edition of the textbook with WebAssign, you do NOT need to purchase anything; you just need to enter your new class key. Your WebAssign class key is **cocc 0917 1538**.

Calculator: A graphing calculator is required and should be brought to class every day. The TI-83 or TI-84 are recommended. If you have another calculator, that is fine, but you are responsible for knowing how to use it.

COURSE INFORMATION

Course description: MTH 252 is a course in what is often called integral calculus. To succeed in this class you need a working knowledge of differential calculus as well as trigonometry and finely honed algebra skills. Topics include antiderivatives, integration techniques, numerical and graphical techniques of integration, improper integrals and applications of integrals. We will work with all concepts algebraically, graphically, numerically and verbally. We will cover material in chapters 4-9 of the text as well as some material not covered in the text.

Course outcomes: Students who complete MTH 252 will be able to:

- understand and use the Fundamental Theorem of Calculus to analyze problems, including: determining the area under a curve, the area between curves, and average value of a function.
- interpret the value of the definite integral in a variety of contexts.
- apply a variety of numerical methods and appropriate technology to approximate the value of a definite integral.
- use the definite integral to solve applied problems such as: volumes of solids, arc length, surface area of solids, fluid force, work, and center of mass.
- use appropriate integration techniques to determine antiderivatives.
- determine and analyze the total change in a function given functional data from a graph, table of values, or formula.
- write significant mathematics in at least one of the following formats:
 - Determine the solution or lack of solution to a multiple-step problem and develop the solution in a formal laboratory report.
 - Analyze, discuss in a team, and develop the solution to an open-ended problem and present that solution in the form of a formal technical report.

Instructional Methods: This course uses a variety of instructional methods including lecture, class discussions, and small group work.

Student Requirements: Throughout this course, you will be expected to:

- Read the assigned sections of the textbook.
- Attend and actively participate in class discussions and activities (bring paper every day!).
- Work cooperatively in groups.
- Complete homework and other assessments according to the policies listed on this syllabus.

Attendance: After the first week, attendance will not be taken. However, regular attendance is expected. If you need to miss class, you should check WebAssign for announcements and assignments and check the website for handouts. You are responsible for all material covered in class during your absence and should get notes from a fellow student *as soon as possible*.

Important Dates:

June 27	Last day to begin attendance in a new class
July 3, 5pm	Last day to drop a class for a full refund
August 8, 1pm	Last day to change from grade to audit or vice versa; last day to drop a course without receiving a W on your transcript
August 20, 6pm	Last day to withdraw from classes (instructor approval is required and you will receive a W on your transcript)

ASSESSMENTS AND GRADING

Homework: Daily homework is handled electronically through WebAssign. Homework is due the Sunday night after it is assigned. You may request a 1-week extension on any homework assignment through WebAssign, as soon as the due date has passed. The extension is good until the following Sunday night. You are encouraged to ask questions about homework in or out of class, and you can get help through WebAssign as well. You will have five chances to submit each question. Problems submitted at least 24 hours early receive a 2% bonus, while those submitted late (with the extension) receive a 10% penalty.

Labs: We will have approximately 6 labs this quarter. My hope is that you will work in groups of 2-4 and will hand-in one lab “write-up” per group. Write neatly in pencil and staple your pages. Clearly lay out your work using proper notation. Circle/highlight/box your final answer where applicable. All graphs must be done on graph paper. Make sure to label your axes. Any other in-class work will be included in this category as well. You may turn in labs one class day late for no penalty and until the next exam for 50% credit. You are welcome to submit labs individually as well.

Project: There will be one project assigned this term. You will be expected to work in groups of 2-4 and hand in a single report. Late projects will not be accepted, but you will have several weeks to work on the project.

Exams: We will have two exams during the term: a midterm in Week 5 and a comprehensive final on the last day of class. If you need to miss the midterm, you must contact me *prior to the start of the exam* (email or voice message is fine for initial contact). We will then arrange a time for you to take the exam with the Testing Center *before the next class meeting*. If you do not follow through with these arrangements, you will receive a 0 on the midterm. The same rules apply for the final, but you must make it up by the last day of the term (Friday, 8/31).

Grading Breakdown:

WebAssign Homework	15%
Labs	15%
Project	10%
Midterm	30%
Final Exam	30%

Grading Scale:

A, A-	90-100%
B, B+,B-	80-89%
C, C+	70-79%
D	60-69%
F	less than 60%

Please note that the overall percentage grade shown to you in WebAssign is **not** weighted, and is therefore inaccurate. Use WebAssign to look up individual assignment grades only, and email me if you want your overall percentage.

TENTATIVE COVERAGE SCHEDULE

A detailed and updated schedule is available at <http://www.cocc.edu/jgiglio/>.

Week 1:	Syllabus; l'Hospital's Rule; antiderivatives
Week 2:	Areas and distances; the definite integral; the Fundamental Theorem of Calculus
Week 3:	Indefinite integrals; the substitution rule
Week 4:	Areas between curves; volumes
Week 5:	Review for and take midterm
Week 6:	Work; average value of a function; integration by parts
Week 7:	Partial fractions; integration using tables
Week 8:	Approximate integration; improper integrals; arc length
Week 9:	Area of a surface of revolution; applications to other fields
Week 10:	Review for and take final exam

ADVICE FOR SUCCESS

- **Get help as soon as you need it.** Of course you are always welcome to ask questions in class, or to come by my office hours or set up another time to meet with me individually or with a group. You can also get free tutoring in the lower level of the library. You can find the current schedule at <http://www.cocc.edu/tutoring-and-testing/>.
- **Stay on top of things with WebAssign and the webpage.** You can use WebAssign to check your grades on individual assignments and look for announcements. Handouts will be available on the webpage (<http://www.cocc.edu/jgiglio/>) the day they are distributed.
- **Budget your time wisely.** Like with most college courses, you should expect to spend at least 2 hours on this course outside of class for every hour in class (so about 8 hours a week or more). Try to spread this time throughout the week rather than waiting until right before an assignment is due so that it's easier to seek help if you need it.
- **Practice, practice, practice.** The only way to truly learn math is by doing it for yourself, not just watching someone do it. If you need additional practice beyond the problems assigned, please let me know!

ADDITIONAL INFORMATION AND POLICIES

Cheating or Plagiarism: You are highly encouraged to work together and help each other. However, cheating or plagiarism on any assignment or test will result in a zero being recorded for that item and may result in an F for your final course grade.

Behavior: Your rights and responsibilities are detailed in the [Students Rights and Responsibilities](http://www.cocc.edu/Student-Life/Rights_and_Responsibilities/) (http://www.cocc.edu/Student-Life/Rights_and_Responsibilities/) handbook. Failure to abide by these guidelines will result in notification to Student Life and can result in dismissal from the class. As for classroom policies, we will have a discussion about them on the first day of class.

Americans with Disabilities Statement: Students with documented disabilities who may need accommodations, who have any emergency medical information the instructor should know of, or who need special arrangements in the event of evacuation, should make an appointment with the instructor as early as possible, no later than the first week of the term. Students may also wish to contact the COCC Disability Services Office in the Boyle Education Center, (541) 383-7583.

COCC Non-Discrimination Policy: Central Oregon Community College is an affirmative action, equal opportunity institution. It is the policy of the Central Oregon Community College Board of Directors that there will be no discrimination or harassment on the basis of age, disability, gender, marital status, national origin, race, religion, sexual orientation, or veteran status in any educational programs, activities or employment. Persons having questions about equal opportunity and non-discrimination, please contact Human Resources for referral to the appropriate personnel, 541-383-7236.

Student Insurance: Students are not covered by medical insurance while on campus or involved in college classes and activities. Students are responsible for their own medical and dental insurance coverage.

Getting Started with WebAssign

- You should be running a current browser with the latest Java version (download from <http://www.java.com/en/download/>).
- Go to <http://www.webassign.net>. Choose the 'I have a Class Key ' option and type in your class key from the first page of this syllabus. Verify your class information and create your account.
- You do not need to purchase anything at this time! You may choose the Free Trial Period option.
- The WebAssign Calendar shows due dates for each assignment.
- The My Assignments section shows assignments on the day they are given out. To request an extension, wait until the due date has passed. Then click on Past Assignments, and you will see an option to "Request Extension" by each assignment.
- You are encouraged to ask questions concerning the homework during class or by e-mail. You can also use the "Ask Your Teacher" button in WebAssign. Remember that you only have five tries to answer a question correctly, so don't use them all up before you seek help! I am able to see all of your previous attempts at each problem.
- You are highly encouraged to **work in groups, use the COCC tutors** and drop by my office anytime (ideally, call or email first if you're coming outside my office hours).