MATHEMATICS 2300: CALCULUS 2 (HONORS), FALL 2015 SYLLABUS

Class Meetings. MTWRF 9:00–9:50 in ECCR 118

Instructor. Jordan Watts

Office Hours. MW 10:00-10:50

Course Teaching Assistant. Carly Matson

Course Learning Assistant. TBA

Course Website. `http://euclid.colorado.edu/~jowa8403/math2300f15/index.php`
See the website for exam information, homework assignments, a link to WebAssign, the course schedule, lists of instructors and TAs, a copy of this syllabus, and links to additional resources. **(Note that this course website is different from the regular MATH 2300 website.)**

Prerequisites: MATH 1300, or APPM 1350, or a score of 4 or 5 on AP Calculus AB or BC, or equivalent. Credit not granted for this course and MATH 1320 or APPM 1360.

Textbook and WebAssign access: We will use the textbook "Calculus - Concepts and Contexts", 4th Edition, by James Stewart. You can purchase the textbook together with an access code to WebAssign (for on-line homework) directly from the publisher or from the CU bookstore. If you purchase the textbook elsewhere, make sure you also buy access to WebAssign for as many semesters as you intend to continue in the calculus sequence. You can find more information about purchasing the textbook and a WebAssign access code on the course website.

Course structure: Research shows that people learn mathematics best when they are actively participating. In other words, you learn by doing, not by watching. Therefore, MATH 2300 does not meet in a large lecture hall, but instead meets in small sections, which allows individual and group work in which you will be actively engaged, solving problems, making discoveries and understanding connections.

This course and the book we are using are designed for a classroom which does not follow a traditional lecture format. Do not be surprised if your instructor often spends only half a class period at the board lecturing or solving problems: the rest of the time, you should expect to be working at your desk, either singly or in groups, or at the board, presenting your work.

In this vein, you will be expected to read a section in the book **before** it is discussed in class. Lectures are intended to highlight aspects of the text, not to replace it.

Course content: This course is a continuation of MATH 1300. Topics we will cover include techniques of integration, improper integrals, applications of integration, sequences and series, power series, Taylor series, differential equations, parametric equations and polar coordinates.

Calculators and other technology: You are required to have an electronic device for in-class activities. You are required to bring it to class. The device you use should be capable of graphing functions and doing numerical integration. Acceptable devices include a calculator such as a TI-83 or better, a graphing calculator application for a smartphone, software packages such as Maple or Mathematica, and web sites such as Wolfram Alpha. **Absolutely no such devices will be allowed on exams or quizzes. Nor will they be needed on exams or quizzes.**

Assignments and assessments: The only effective way to learn Calculus is to do lots and lots of problems. Besides working on problems in class every day, you will have assignments and assessments in this course to enhance your skills and understanding.

Online homework: WebAssign is an on-line system for doing homework. When you log on, you are given problems that you solve on paper and then enter the answers. These problems are generally straightforward or computational, and you can repeat them multiple times until you get the correct answer. The philosophy behind this is that instantaneous feedback is more effective than waiting days for a grade, and that doing a problem over if it's wrong is better than simply seeing the right answer. Because problems are graded by a computer, there are occasional technical issues, but we believe the trade-off is worthwhile. WebAssign can be accessed through the link on the main course webpage.

If you registered for the course by August 20, then you should already have a WebAssign login. In this case, your username is the same as your Identikey username, and your password is your Identikey password. If you registered for the course after August 20, then you will need to email math-help@colordo.edu to get a WebAssign login. Include your full name, your CU email address, your Identikey username and the course and section you are registered in.

There will be a WebAssign assignment for each topic we cover, assigned when we begin that material. Please check the due dates regularly, as you are responsible for getting the assignments done on time. No late WebAssign will be accepted. However, we will allow you to miss 10% of the WebAssign problems for the semester with no penalty, so you don't need to panic if you miss a problem here and there.

If you are having a technical issue with WebAssign, you should contact WebAssign Student Support: `https://webassign.com/support/student-support/`. If you are having a conceptual math issue, which is not too complicated for email, then you may email your instructor, but when you do, make sure to include "MATH 2300" in the subject line, and give a clear statement of the problem you are trying to solve, say what you have already tried and why you think it should have worked. It is better, however, to ask your instructor after class, during office hours, or during an appointment.

Recitation projects: Recitations are every Thursday and are supervised by a graduate Teaching Assistant (TA) and an undergraduate Learning Assistant (LA). In recitation you will work on projects in small groups with several of your classmates. Expect to be assigned to groups, which will be changed frequently. The TA and LA will be present during recitations to facilitate your work on the projects, but the goal is for you (and your group-mates) to **work through, and complete these projects on your own** as much as possible.

Your LA and TA will be making sure that you participate in your group's explorations and discoveries. Your grade is partially based on participation, so *participate*.

Missed projects cannot be made up: if you miss a Thursday recitation, you will receive a zero for that project. However your lowest two recitation grades will be dropped.

Written homework: You will be assigned several conceptual problems out of the textbook each week. You are expected to write up complete, legible, and logical solutions to these problems, which will be graded by your Teaching Assistant. Each problem should be written using complete sentences to explain your steps. Homework will be collected in and returned in Thursday recitations. Late homework will not be accepted, but your lowest two homework scores will be dropped. Your homework must be stapled and labelled with your section number to be counted for credit.

Presentations: As part of the Honors section, each of you are required to give a short presentation (averaging 10-15 minutes) on a specific topic during class. A list of these topics is available on the website, and you will need to sign up for them by emailing your instructor, putting "MATH 2300 Presentation" in the subject line, and indicating in the message which one you want to do. Note, however, that only one person can do each topic, and so they are delegated on a first-come first-serve basis. Some of these start early in the term, so sign up right away.

Attendance and in-class participation: You will have regular in-class activities that will be graded for both correctness and participation. Your instructor will give you details about these activities. Overall, these do not count as a *portion* of your grade, but a lack of attendance/participation will result in a *deduction* from your final course grade, up to a maximum of 15%.

Midterms: This course has three midterm exams and a final exam. They have already been scheduled. Calculators and cell phones will not be allowed during any portion of any exam. **Use of any electronic device at any time during the exam will be considered cheating.**

Plan your schedule now. There will be **no make-up exams** given under any circumstances. However, **if you must miss a midterm exam, your Final Exam score will be used as your grade for that midterm**, which will apply in particular if you cannot attend an exam due to emergency, illness, religious observance, or other reason. If you do not miss any midterm exams, we will replace your lowest midterm grade by your final exam grade if it is higher.

- Midterm 1: Monday, September 21, 5:15 pm to 6:45 pm.
- Midterm 2: Monday, October 19, 5:15 pm to 6:45 pm.
- Midterm 3: Monday, November 16, 5:15 pm to 6:45 pm.

Note that midterms **are at night and not in your regular classroom. Exam locations will be announced by each instructor in class, and will be posted on the course website.**

Final Exam: The final exam for the course is **cumulative**. It is scheduled for:

Tuesday, December 15, from 7:30 am to 10:00 am.

You may not reschedule this exam even if you have three exams on the same day (university policy only allows for the third exam to be rescheduled).

Grades: The grade distribution will be calculated based on the following weighting:

- Midterms: 15% each
- Final Exam: 20%
- WebAssign: 5%
- Written homework: 10%
- Recitation projects: 10%
- Presentations: 10%
- (Attendance/Participation: max 15%)

Undergraduate Mathematics Resource Center: You may seek assistance with your math questions in the Undergraduate Mathematics Resource Center in Math 175. This is a great place to meet other students in the course and work together. You may request help from any lab tutor. Show up prepared, with your textbook and class materials. When you ask a question, begin with a clear statement of the problem, what you have already tried, and why you think it should have worked. The Center opens the first week of classes and runs through the last week of classes. The Center is open roughly during business hours and also several evenings a week. Check the schedule posted outside the room.

UNIVERSITY POLICIES AND STANDARDS

Classroom behavior and Respect for Diversity: Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, color, culture, religion, creed, politics, veterans status, sexual orientation, gender, gender identity and gender expression, age, disability, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun.

Please advise me of this preference early in the semester so that I may make appropriate changes to my records. For more information, see the policies on classroom behavior and the student code at

`www.colorado.edu/policies/student-classroom-and-course-related-behavior`

and at

`www.colorado.edu/osc/sites/default/files/attached-files/osc_handbook_2015-16.pdf`

Accommodation for Disabilities: If you qualify for accommodations because of a disability, please submit to your instructor a letter from Disability Services in a timely manner (for exam accommodations provide your letter at least one week prior to the exam) so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities. Contact Disability Services at 303-492-8671 or by e-mail at dsinfo@colorado.edu.

If you have a temporary medical condition or injury, see Temporary Injuries under Quick Links at the Disability Services website (`disabilityservices.colorado.edu`) and discuss your needs with your instructor.

Religious observances: Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. Please notify us within the first two weeks of the course if you must miss a class, exam, or assignment because of a religious observance. See full details at

`www.colorado.edu/policies/observance-religious-holidays-and-absences-classes-andor-exams`

Discrimination and harassment: The Office Of Institutional Equity And Compliance (OIEC) Recommends The Following Syllabus Statement:

The University of Colorado Boulder (CU-Boulder) is committed to maintaining a positive learning, working, and living environment. CU-Boulder will not tolerate acts of discrimination or harassment based upon Protected Classes or related retaliation against or by any employee or student. For purposes of this CU-Boulder policy, "Protected Classes" refers to race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Individuals who believe they have been discriminated against should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or the Office of Student Conduct and Conflict Resolution (OSC) at 303-492-5550. Information about the OIEC, the above referenced policies, and the campus resources available to assist individuals regarding discrimination or harassment can be found at the OIEC website (`www.colorado.edu/institutionalequity`). The full policy on discrimination and harassment contains additional information. (`www.colorado.edu/policies/discrimination-and-harassment-policy-and-procedures`)

Honor code: All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution (`www.colorado.edu/policies/academic-integrity-policy`). Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-735-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Additional information regarding the Honor Code policy can be found online (`www.colorado.edu/policies/student-honor-code-policy`) and at the Honor Code Office (`honorcode.colorado.edu`)

RECOGNITION of POLICIES AND DATES
Detach, fill out, sign and date and return to your instructor

YOUR NAME: _____

SECTION: _____

I acknowledge that I have been informed that the midterm exams are scheduled for:

Midterm 1: Monday, September 21, 5:15 pm to 6:45 pm.
Midterm 2: Monday, October 19, 5:15 pm to 6:45 pm.
Midterm 3: Monday, November 16, 5:15 pm to 6:45 pm.

and that these exams are at night and not in my regular classroom. I have no schedule conflicts and can attend all of these exams.

Furthermore, I acknowledge that I have been informed that the final exam is scheduled for

Tuesday, December 15, from 7:30 am to 10:00 am.

I have no schedule conflicts and can attend the final exam.

I have read and I understand the syllabus. I understand the system that will be used to evaluate my work in this course. I have checked my enrollment in WebAssign by logging in.

SIGN: _____

DATE: _____