

University of Colorado Boulder
Department of Mathematics
MATH 3001 - Analysis I
Section 3 - Fall 2016

Class Meetings. MWF 2:00–2:50 in ECCR 118

Instructor. Jordan Watts

Office Hours. MW 11:00-11:50, or by appointment

Office. Math Building, Room 202

Course Website. <http://euclid.colorado.edu/~jowa8403/math3001f16/index.php>

See the website for exam information, homework assignments, the course schedule, a copy of this syllabus, and links to additional resources.

Prerequisites: MATH 2001 (Introduction to Discrete Mathematics), or equivalent. In particular, you should be familiar with finite sets, mathematical induction, the pigeonhole principle, equivalence relations, and partial orders just to name a few things, as well as have experience with proving mathematical statements.

Text: Steven R. Lay, *Analysis - With an Introduction to Proof, 5th edition*, Pearson, 2014.

Course Outline: Analysis I is a course in which the student goes back to single variable calculus, and learns the rigorous theory behind it. In particular, we will cover the topology and structure of the real line, sequences of real numbers, limits and continuity, differentiation, the Riemann integral, as well as the proofs of important theorems such as the Intermediate Value Theorem, the Mean Value Theorem, Taylor's Theorem, and the Fundamental Theorem of Calculus.

Homework Assignments: There will be weekly written homework assignments due (almost) every Wednesday. There will be 13 total, and the best 10 will be counted toward 20% of your final grade. You are encouraged to work on the homework assignments together, but each student must submit their own work in their own words.

Midterms: This course has two midterm exams and a final exam. 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.** There will be **no make-up exams** given under any circumstances except for those described in the policies outlines below, so make sure that you have no conflicts.

- Midterm 1: Friday, September 23, held in class.
- Midterm 2: Friday, November 4, held in class.

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

Thursday, December 15, from 1:30 pm to 4:00 pm

Location: TBA.

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

- Midterms: 25% each
- Final Exam: 30%
- Homework Assignments: 20% (best 10 out of 13)

UNIVERSITY POLICIES AND STANDARDS

Classroom Behaviour 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, veteran's 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.

Accommodation for Disabilities and Temporary Medical Conditions: If you qualify for accommodations because of a disability, please submit to your professor 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 guidelines (under Quick Links at the Disability Services website: <http://www.colorado.edu/disabilityservices/>) 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. In this class, students are required to check the date of exams and homework due dates ahead of time, and inform their instructor as soon as possible so that alternate arrangements can be made. In the case of homework, the assignment can be handed in late; in the case of an exam, the student will be given a different exam later.

See the campus policy regarding religious observances for full details.

Discrimination and Harassment: 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 sexual misconduct, discrimination, harassment or related retaliation against or by any employee or student. CU's Sexual Misconduct Policy prohibits sexual assault, sexual exploitation, sexual harassment, intimate partner abuse (dating or domestic violence), stalking or related retaliation. CU Boulder's Discrimination and Harassment Policy prohibits discrimination, harassment or related retaliation based on 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 subject to misconduct under either policy should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127. Information about the OIEC, the above referenced policies, and the campus resources available to assist individuals regarding sexual misconduct, discrimination, harassment or related retaliation can be found at the OIEC website.

Honor Code: All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the academic integrity policy of the institution. Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access, clicker fraud, resubmission, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code Council (honor@colorado.edu; 303-735-2273). Students who are found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code Council as well as academic sanctions from the faculty member. Additional information regarding the academic integrity policy can be found at honorcode.colorado.edu.