

**MATH 4510-300: Intro. to Probability Theory, Summer 2012**  
**MTWRF 1:00–2:00 PM, ECCR 110**  
**June 4, 2012 – July 27, 2012**

**General Information:**

**Instructor:** Dr. Michael D. Roy   **Office:** Math 140  
**Email:** roymd@colorado.edu   **Office Hours:** after class and by appointment

**Course Webpage:** <http://euclid.colorado.edu/~roymd/m4510sum12/>

**Text:** Sheldon Ross, *A First Course in Probability*, 8th ed., Prentice Hall, 2010.

**Course Description:** Studies axioms, combinatorial analysis, independence and conditional probability, discrete and absolutely continuous distributions, expectation and distribution of functions of random variables, laws of large numbers, central limit theorems, and simple Markov chains. Prereqs., MATH 2400, or APPM 2350, and MATH 3130. Credit not granted for this course and APPM 3570, ECEN 3810, or MATH 3510.

**Material Covered:** This course will cover most of chapters 1–8. A tentative schedule of when each section will be covered is available on the course webpage. I suggest that you read the material in your textbook before we cover it in class.

**Grading Scheme:**

You will be graded on your written work, which will be judged on the basis of *correctness*, *completeness*, and *legibility*. Your final grade will be determined as follows:

Homework:	30%
Midterm exam:	15% take-home and 20% in-class
Final exam:	15% take-home and 20% in-class

**Homework:** Homework will be assigned about once a week. The assignments will be given in class and also posted on the course webpage. They will typically be due the following week. Homework will be accepted late with no penalty if you talk to me before the due date or if you have a documented excuse. You are welcome to discuss the homework problems with each other and with me. However, you should try the problems on your own and you must write up your own solutions.

**Exams:** The midterm exam will consist of a take-home portion assigned on **Monday, June 25** and due **Friday, June 29** and an in-class portion on **Friday, June 29**. The final exam will consist of a take-home portion assigned on **Monday, July 23** and due **Friday, July 27** and an in-class portion on **Friday, July 29**. You may use a calculator and one sheet (front and back) of notes on the in-class portions of the exams. You may also use your textbook on the take-home portion of the exams, but may not consult other sources or each other.

**University Policies:**

If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Center for Community N200, and <http://www.Colorado.EDU/disabilityservices>

Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. Please let me know well in advance of any such conflicts to discuss alternate arrangements. See full details at [http://www.colorado.edu/policies/fac\\_relig.html](http://www.colorado.edu/policies/fac_relig.html)

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, culture, religion, politics, sexual orientation, gender, gender variance, 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. See policies at <http://www.colorado.edu/policies/classbehavior.html> and at [http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student\\_code](http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code)

The University of Colorado at Boulder policy on Discrimination and Harassment, the University of Colorado policy on Sexual Harassment and the University of Colorado policy on Amorous Relationships apply to all students, staff and faculty. Any student, staff or faculty member who believes s/he has been the subject of discrimination or harassment based upon race, color, national origin, sex, age, disability, religion, sexual orientation, or veteran status should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550. Information about the ODH, the above referenced policies and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at <http://www.colorado.edu/odh>

All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. 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](mailto:honor@colorado.edu); 303-725-2273). 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). Other information on the Honor Code can be found at <http://www.colorado.edu/policies/honor.html> and at <http://www.colorado.edu/academics/honorcode/>