

## APPM 3570

## Applied Probability

Spring 2018

(<https://www.colorado.edu/amath/course-pages/spring-2018/appm3570>)

APPM 3570-1, FLMG 104, MWF 10-10:50am  
APPM 3570-3, DUAN G125, MWF 1-1:50pm  
Zachary Kilpatrick (Office: ECOT 247)  
Hours: M 11am-12:30pm; F 8:30-10am  
zpkilpat@colorado.edu

APPM 3570-2, DUAN G2B60,  
MWF 2-2:50pm  
Farhad Pourkamali (Office: ECOT 235)  
Hours: M 3-5pm; F 4-5pm  
farhad.pourkamali@colorado.edu

**Course Goals:** This course will develop the fundamental principles of probability as well as an introduction to some of its applications. We will cover the axioms of probability, counting formulas, independence and conditional probability, discrete and continuous random variables, jointly distributed random variables, expectations, moment generating functions and the multivariate Gaussian distribution (Prerequisite: Calculus III).

**Text:** *A First Course in Probability*, 9<sup>th</sup> ed, by Sheldon Ross.

**Grade Determination:** There are a total of 400 points for this course. The points are distributed over two midterms (100 points each), one final exam (100 points) and homework (100 points total). Please note that there will be no make-up exams. If you are sick for an exam, you must bring a note from your doctor verifying your illness. Your course grade will then be determined from your remaining course work. Approximate grade lines will be

A-  $\geq$  90%      B-  $\geq$  80%      C-  $\geq$  70%      D  $\geq$  60%

**Exams:** There will be two evening midterm exams from 6-7:30pm on Wednesday February 21 and Wednesday April 11, location to be announced. If your schedule conflicts with either of these times, let us know immediately. Exams test all material covered since the last exam, as shown on the calendar.

**Final:** Each section has its own final exam, which will test material not covered in Exams 1 and 2:

**APPM 3570-001 (Zachary Kilpatrick, 10-10:50am):** Sunday, May 6, 1:30-3:00pm

**APPM 3570-003 (Zachary Kilpatrick, 1-1:50pm):** Sunday, May 6, 7:30-9:00pm

**APPM 3570-002 (Farhad Pourkamali, 2-2:50pm):** Wednesday, May 9, 1:30- 3:00pm

**Homework:** Homework will be due on a weekly basis. **You must show all work, correct solutions without adequate justification will receive no credit.** Late homework will not be accepted. There will be 12 total collected homework sets. Your two lowest grades will be dropped.

**Help Sessions:** Learning assistants will hold three help sessions each week, where they will elaborate on lecture material and provide homework assistance. All sessions are in **ECCR 244**.

**Mondays 6-7pm:** Yen Vo & Jetanat Datephanyawat

**Tuesdays 3-4pm:** Trevor McCord & Yen Vo

**Wednesdays 11am-12pm:** Jetanat Datephanyawat & Trevor McCord

**Special Accommodations:** Any student eligible for accommodations because of a disability, religious beliefs, or athletic conflict should inform us by Friday, January 19. If you have a temporary medical condition or injury, see Temporary Medical Conditions: Injuries, Surgeries, and Illnesses guidelines under Quick Links at Disability Services website and discuss your needs with me.

**Academic Honesty:** 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](mailto: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. Violation of the CU Honor Code will result in a course grade of F (see <http://www.colorado.edu/academics/honorcode/>).

**Classroom Environment:** Students and faculty have a responsibility for maintaining an appropriate learning environment. 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.

**Sexual Misconduct, Harassment, and Discrimination:** 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.

**Dropping the course:** Advice from your department advisor is recommended before dropping any course. After March 23<sup>rd</sup>, dropping the course is possible only with a petition approved by the Dean's office.

**See course website at:**

<https://www.colorado.edu/amath/course-pages/spring-2018/appm3570>

**for further information about the course policies.**