

# STAT 4000

## Statistical Methods

### Autumn 2021

**Lectures:** MWF 3:00 – 3:50 PM, (virtual)

Professor: Vanja Dukic

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Office Hours: Mon/Wed 5-6:15 PM (virtual)

**Course Assistant:**

Ruyu Tan

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Office Hours: Tue/Wed/Thur 9-10 AM, (virtual)

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**Course Goals:** To learn the basic concepts and techniques of probability, statistical inference and modeling.

**Text:** *Probability and Statistics*, by Devore (any edition).

**Course web page:** <http://amath.colorado.edu/faculty/vdukic/4570/> You will find useful information on the course web page, such as lecture notes, homework assignments and schedule, and reading assignments.

**Grade determination:** There are a total of 100 points for the course. The points are distributed over 6 homework assignments (7 points each for a total of 42 points), two midterm exams (15 points each), and a cumulative final exam (28 points). Traditional grading scale will be used: A- > 90%; B- > 80%; C- > 70%; D- > 60%. Any adjustments to this scale will be made in favor of the student.

**Homework:** The homeworks will be due roughly every other week, starting with week 2. Late homework will **not** be accepted or graded, except in extraordinary circumstances. In most homeworks, some of your analyses will be best done using languages such as Python, R, Matlab, or Stata (even a spreadsheet application will do in some cases); in those cases, turn in a write-up and interpretation of your results, along with the output and code you used to generate the output. You can collaborate with your classmates on the programming part, but you must write up the interpretation and answers independently of each other.

**Exams:** There will be two midterm exams and a comprehensive final. There will be **no** make-up exams or early exams. If you cannot take the exam during the allotted time due to an illness, please let me know. Your course grade will then be determined by the rest of your course work.

**Dropping the course:** Getting advice from the Dean's office is recommended before dropping any course. After the last drop date (check the university deadlines), dropping the course is possible only with a petition approved by the Dean's office.

**Extra help:** You are encouraged to get extra help whenever you need it. The assistant and instructor each have office hours, which are posted above. Also, the CU Residence Halls run regular Math Labs and tutoring is available through the dorms or the Engineering Peer Advocates. Please talk with your academic advisor for more details.

**Additional Important Syllabus Statements:** For statements pertaining to Honor Code, Accommodation for Disabilities, Classroom Behavior, Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation, and Religious Holidays, please refer directly to the online document which can be found at: <https://www.colorado.edu/academicaffairs/policies-customs-guidelines/required-syllabus-statements>