
Course Description: This is an introduction to selected areas of mathematical sciences through application to modeling and solution of problems involving networks, circuits, trees, linear programming, random samples, regression, probability, inference, voting systems, game theory, symmetry and tiling, geometric growth, comparison of algorithms, codes, and data management.

Classroom Policies and Expectations
Code of Conduct: To facilitate an appropriate learning environment, it is essential that all distractions be kept to a minimum. Students should arrive on time and be ready to learn. All cell phones should be silenced and music players put away at the beginning of class. Students who carry on conversations, text message, use laptops, or eat noisily during class will be asked to do so outside of the classroom.

Attendance Policy: It is your responsibility to come to class. If you miss all or part of a class, you should contact someone else in the class to get the lecture notes and announcements. There will be a lot of in-class collaboration, and it is not fair to others in the class if you let yourself fall behind on the material.

Academic Honesty: All violations will be dealt with in accordance with University policy. Cheating on quizzes, tests, or the final exam is strictly prohibited and will result in serious consequences. In particular, cheating may result in an “F” for the course and be reported to both the student’s college and the Senate Committee on Student Discipline.

Course Requirements
Homework and Project: Optional homework will be assigned daily. Suggested practice problems from the book serve as preparation for quizzes and exams. Homework may be turned in for feedback on writing style and correctness. Students are also encouraged to visit my office hours or work with classmates to master this material. In addition, students will complete a project analyzing a topic of interest to them (and of some relation to mathematics). A project proposal is due Friday, October 7, and the final project will be due in late November.

Quizzes and Exams: There will be eleven weekly 15 minute quizzes as well as three in-class exams (Friday, September 16, Friday, October 14, and Friday, November 11). Only the top 10 scores out of these 11 quizzes will be counted towards the final grade; an absence on a quiz day will result in a 0 on that quiz. There will be no make-up exams or quizzes. If you must miss an exam due to illness or another emergency, then within one week of the exam date you
must contact the Emergency Dean (300 Turner Student Services Building, 610 East John St., 333-0050) and ask for a letter excusing your absence. The grade on the corresponding part of the final exam will replace the zero for the missed exam. This replacement policy may be used for only one missed exam.

**Final Exam:** The final exam will be administered on **Tuesday, December 13, 8:00am-11:00am** in the current classroom. The exam will be cumulative. Failure to take the final exam will result in a failing grade for the semester, regardless of current standing in the class.

**Grading Policy**

**Grade Distribution:**
- 15%, Quizzes
- 15%, Project
- 45%, 3 Exams (15% each)
- 25%, Final Exam

**Grade Scale:** A slight curve is possible, but not guaranteed.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Range</th>
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<tbody>
<tr>
<td>A</td>
<td>90-93</td>
<td>A: 93-97 A+: 97-100</td>
</tr>
<tr>
<td>B</td>
<td>80-83</td>
<td>B: 83-87 B+: 87-90</td>
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<tr>
<td>C</td>
<td>70-73</td>
<td>C: 73-77 C+: 77-80</td>
</tr>
<tr>
<td>D</td>
<td>60-63</td>
<td>D: 63-67 D+: 67-70</td>
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<tr>
<td>F</td>
<td>Below 60</td>
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**Other Information**

**Important Dates:** The in-class exam dates are subject to change. You will be given at least a week’s notice of any changes.

- **Drop (without a W) Deadline** (tentative) October 14
- **No Class (Labor Day)** Monday, September 5
- **Midterm 1** Friday, September 16
- **Project Proposal Due** Friday, October 7
- **Midterm 2** Friday, October 14
- **Midterm 3** Friday, November 11
- **No Class (Thanksgiving)** November 19-27
- **No Class (Finals)** Friday, December 9
- **Final Exam** (tentative) Tuesday, December 13, 8:00am-11:00am

**Accommodations:** Students with disabilities who require reasonable accommodations to participate in this class should see me and contact DRES (www.disability.uiuc.edu) as soon as possible. I need to be notified with official documentation no later than one week into the course. Any accommodation on tests must be made at least one week in advance and will require a letter from DRES.

**Extra Help:** Do not hesitate to come to my office during office hours or by appointment to discuss a homework problem or any aspect of the course. Information about tutoring can be found at [http://www.math.illinois.edu/UndergraduateProgram/tutoring.html](http://www.math.illinois.edu/UndergraduateProgram/tutoring.html).

Additional resources are your classmates who are all working on the same material, so you are encouraged to work together on the homework.