Math 20F Syllabus

Consult with this syllabus before asking questions regarding the course rules.
THERE WILL BE NO EXCEPTION TO THESE RULES.

Course: Math 20F: Linear Algebra

Instructor: Professor Guershon Harel harel@math.ucsd.edu, AP&M 7420; Office Hours: Monday, Wednesday: 3:00-4:30

TA: Section A01: Jor-el Briones jbriones@ucsd.edu
   Regular Office Hours (AP&M 6436B): Mon 1-3pm
   Matlab Office Hours (AP&M B432): Mon 3-5pm
Section A02: Benjamin Ciotti bciotti@ucsd.edu
   Regular Office Hours (AP&M 6351): Tue 4-5pm Thur 4-5pm
   Matlab Office Hours (AP&M B432): Wed 3-5pm
Section A03: Sam Verhaegen saverhae@ucsd.edu
   Regular Office Hours (AP&M 2313): Wed 12-2pm
   Matlab Office Hours (AP&M B432): Wed 10-12pm
Section A04: Jake Postema jpostema@ucsd.edu
   Regular Office Hours (AP&M 5421): TBA
   Matlab Office Hours (AP&M B432): TBA


The textbook is only a guide for the instructor. The order and content presented in class may deviate from those appearing in the text. On your homework and exams, you can use only the material presented in class. For example, you cannot use a theorem from the textbook that was not presented in class. For this reason, while class attendance is not amendatory, it is crucial that you attend each class and your TA’s session.

The material to be covered in class will generally correspond to the following sections:


There might be adjustments to this plan.

Lecture: Attending the lecture is a fundamental part of the course; you are responsible for material presented in the lecture whether or not it is discussed in the textbook. You should
expect questions on the exams that will test your understanding of concepts discussed in the lecture.

Proofs will appear throughout the lecture. Most of the homework and exam problems will be proof based. At least 60% of the problems on the exams will be similar to homework problems.

**Homework:** Summer courses are 5 weeks long, whereas corresponding Quarter courses are 10 weeks long. Therefore, the amount of homework you should expect in this course is double the amount assigned in the corresponding quarter course.

Homework assignment will appear on TED, and will be due at **5:00pm** on the indicated due date. Please turn in your homework assignments in the homework dropbox in the basement of AP&M. **Late homework will not be accepted under any circumstance.**

Homework will be returned in discussion section.

- The grader is under no obligation to grade messy or disorganized homework. (This includes homework that has not been stapled together.)

- The upper right corner of each assignment must include: o Your name o Your discussion section (A01, A02, etc.). If you attend a different section from the one in which you are enrolled, specify which is which on your assignment. o Homework assignment number

It is allowed and even encouraged to discuss homework problems with your classmates, but your final write up of your homework solutions must be your own work.

You are strongly encouraged to attend the instructor’s and TAs’ office hours to discuss homework or material covered in class.

**Questions regarding administrative aspects of homework should be directed to the TAs, not to the instructor.**

**MATLAB:** In applications of linear algebra, the theoretical concepts that you will learn in lecture are used together with computers to solve large scale problems. Thus, in addition to your written homework, you will be required to do homework using the computer language MATLAB. The Math 20F MATLAB Assignments page contains all information relevant to the MATLAB component of Math 20F. The first assignment is due in week 2 of the course. You can do the homework on any campus computer that has MATLAB.

**Questions regarding the MATLAB assignments should be directed to the TAs, not to the instructor.**

There are also tutors available beginning Thursday or Friday of the first week of classes in B432 of AP&M. Please turn in your homework assignments in the dropbox in the basement of AP&M by **3:00pm** on the indicated due date (as indicated on the MATLAB Assignment Due Dates
Exams: One midterm exam and a final exam will be given during the summer quarter. No notes, cheatsheets, books, or any material, including calculators and cellphones will be allowed during these exams. **There will be no makeup exams.**

*It is your responsibility to ensure that you do not have a schedule conflict involving the final examination; you should not enroll in this class if you cannot take the final examination at its scheduled time.*

Midterm: Wednesday, July 15th, in class, during class hours.
Final: Friday, July 31st, location TBA, 7-10pm

Regrade Policy: Homework and midterm exams will be returned in the discussion sections. If you believe there might be an error in the grading and wish to have your exam regraded, you must observe the following rules:

1. Return your exam immediately to your TA. Regrade requests will not be considered once the quiz or exam leaves the room.
   - If you disagree with the TA's answer to your regrade request, you may ask for the instructor to review it. In order to do this, you must:
     1. Return your exam immediately to your TA and,
     2. Ask that they forward your exam to the instructor.

   Instructor review requests will not be considered once the exam leaves the room.

2. Retrieve your exam during discussion section or arrange to pick it up from your TA within one week after it was made available for pickup (i.e., returned) in section. In order to be considered, regrade requests must be submitted within one week after being returned in section.

Grading: Your course grade will be determined by your cumulative average at the end of the term and will be based on the following scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A+</td>
<td>97</td>
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<tr>
<td>A</td>
<td>93</td>
</tr>
<tr>
<td>A-</td>
<td>90</td>
</tr>
<tr>
<td>B+</td>
<td>87</td>
</tr>
<tr>
<td>B</td>
<td>83</td>
</tr>
<tr>
<td>B-</td>
<td>80</td>
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<tr>
<td>C+</td>
<td>77</td>
</tr>
<tr>
<td>C</td>
<td>73</td>
</tr>
<tr>
<td>C-</td>
<td>70</td>
</tr>
</tbody>
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The instructor may adjust the above scale based on their class's performance.

Your cumulative average will be calculated as follows:
20% Homework, 20% Midterm, 10% MATLAB, 50% Final Exam

If you missed the midterm and you have one of the documents listed below, then your cumulative average will be calculated as follows:
20% Homework, 10% MATLAB, 70% Final Exam

Note: The MATLAB 10% is a combination of 5% MATLAB Assignments and 5% MATLAB quiz.

The document needed is one the following:
1. A doctor’s note indicating explicitly that you physically were unable to attend the exam.
2. A letter from your Dean of Students explaining that personal circumstances, other than illness, prevented you from taking the exam.

Without one of these documents, your grade on the missed midterm will be zero; in which case, your cumulative average will be:
20% Homework, 10% MATLAB, 70% Final Exam.

You must pass the final exam to pass the course.

**Academic Integrity:** UCSD's [code of academic integrity](#) outlines the expected academic honesty of all students and faculty, and details the consequences for academic dishonesty. The main issues are cheating and plagiarism, of course, for which we have a zero-tolerance policy. (Penalties for these offenses usually include assignment of a failing grade in the course, and can be much more significant.) However, academic integrity also includes things like giving credit where credit is due (listing your collaborators on homework assignments, noting books or papers containing information you used in solutions, etc.), and treating your peers respectfully in class. In addition, here are a few of our expectations for etiquette in and out of class.

- **Entering/exiting class:** Please arrive on time and stay for the entire class/section period. If, despite your best efforts, you arrive late, please enter quietly through one of the rear doors and take a seat near where you entered. Similarly, in the rare event that you must leave early (e.g. for a medical appointment), please sit close to a rear exit and leave as unobtrusively as possible.
- **Noise and common courtesy:** When class/section begins, please stop your conversations. Wait until class/section is over before putting your materials away in your backpack, standing up, or talking to friends. Do not disturb others by engaging in disruptive behavior. Disruption interferes with the learning environment and impairs the ability of others to focus, participate, and engage.
- **Electronic devices:** Please do not use devices (such as cell-phones, laptops, tablets, iPods) for non-class-related matters while in class/section. No visual or audio recording is allowed in class/section without prior permission of the instructor (whether by camera, cell phone, or other means).
- **E-mail etiquette:** You are expected to write as you would in any professional correspondence. E-mail communication should be courteous and respectful in manner and tone. Please do not send e-mails that are curt or demanding.