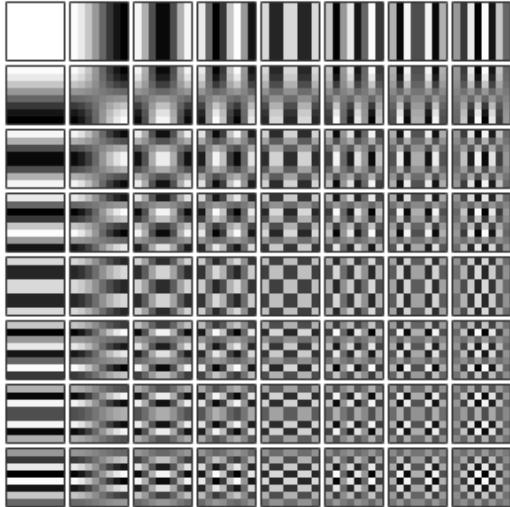


# **Math 320 - Linear Algebra I**

David Dumas

Fall 2018



## 1. BASIC COURSE INFORMATION

**Course Web Page** <http://math.uic.edu/~ddumas/math320/>

Textbook Friedberg, Insel, and Spence, *Linear Algebra*, 4ed

Location 316 Burnham Hall

Meeting Time MWF 9am

CRN 13705

Instructor David Dumas

Email [david@dumas.io](mailto:david@dumas.io)

Office Hours MWF 10am

Office 503 SEO

## 2. COURSE CONTENT

This course is a rigorous introduction to linear algebra, the area of mathematics concerned with vector spaces and linear transformations. In addition to defining these essential concepts, we will discuss related topics such as matrices, systems of linear equations, Gaussian elimination, determinants, eigenvectors, and eigenvalues.

In the textbook, we will cover most material from chapters 1–5 and selected topics from chapter 6.

## 3. PREREQUISITES AND RESTRICTIONS

Students must have completed Math 215 with a grade of C or higher.

#### 4. IMPORTANT DATES

Aug 27	Mon	First day of class
Sep 3	Mon	Labor day, no class
Sep 7	Fri	Course add/drop deadline
Sep 28	Fri	<b>Exam 1</b>
Nov 2	Fri	<b>Exam 2</b> and late drop deadline
Nov 23	Fri	Thanksgiving holiday, no class
Dec 7	Fri	Last day of class
Dec 11	Tue	<b>Final exam</b> , 10:30am-12:30pm

#### 5. GRADING

Grades in this section of Math 320 will be computed on the following basis:

- 30% Homework
- 20% Exam 1 (Sep 28)
- 20% Exam 2 (Nov 2)
- 30% Final exam (Dec 11)

In every aspect of the course (homework, exams, final exam, course grades), percentages will be converted to letter grades using the following **fixed grading scale**:

- A = 85% – 100%
- B = 75% – 84%
- C = 65% – 74%
- D = 55% – 64%
- F = less than 55%

Homework and exam grades will be entered in an online gradebook on UIC's Blackboard course management system. This allows students to check their grades throughout the semester.

#### 6. HOMEWORK

Homework problem sets will be posted to the course web page regularly. The usual schedule will be one assignment per week, due on Monday. Check the course web page to confirm the exact schedule of upcoming assignments.

The following policies will apply to homework assignments in this course:

Homework is due in lecture on the date specified on the course web page, and must be written or printed on sheets of paper that are stapled together. Written permission from the instructor is required to submit the homework in any other way (e.g. outside of lecture), and when circumstances allow it, such permission must be obtained before the assignment is due.

Unless otherwise specified on the course web page, all problems on homework assignments are taken from the textbook.

Unless otherwise specified in the assignment, any yes/no or true/false question requires you to write a proof of your answer.

Unless an announcement on the course web site instructs you otherwise, every proof you write on a homework assignment must include an explicit justification for every single step, such as “By Axiom (VS 5), ...” or “By Axiom (F 4), ...”. If you are unsure about whether you are allowed to use a certain theorem, fact, property, etc., in a proof, ask the instructor.

Written homework solutions must be clear, concise, and legible to receive full credit. Typed solutions are welcome, but not required.

Collaboration with other students on homework must be acknowledged in a written statement at the top of the first page of work submitted. Word-for-word copying of another student’s homework solution is never acceptable. Instead, when working in a group, each student is expected to reach a conceptual understanding of the method of solution which they then write in their own words.

The grade assigned to homework upon first submission is final. Homework cannot be resubmitted for additional credit.

When computing your homework average at the end of the semester, the two lowest homework scores will be dropped, and each of the remaining assignments will be given equal weight.

## 7. EXAMS

There will be two in-class midterm exams, on September 28 and November 2.

The final exam will be held at the time set by the registrar: Tuesday, December 11 from 10:30am to 12:30pm.

To the extent possible, the midterm exams are not cumulative. That is, the second in-class exam will primarily test material covered after the first exam.

The final exam is cumulative. Slightly more emphasis will be given to material covered after the second in-class exam.

Midterm exams may cover any material from lectures or reading up to the date of the exam. For example, material discussed in lecture on Wednesday may appear on Friday’s exam.

## 8. COMMUNICATION PREFERENCES

Email is the preferred and most reliable method of communication with the instructor outside of lecture and office hours.

## 9. PARTICIPATION

Students are encouraged to ask questions in lecture about the material currently under discussion, and to answer questions asked by the instructor.

Questions about recent homework problems, grading, past exams, etc., are better left to office hours.

## 10. ATTENDANCE

Students are responsible for all of the material covered in the lectures, including any lectures they miss. Any student who misses a lecture is advised to ask classmates for notes and information about any assignments or course announcements. Lecture notes are not provided by the instructor (in case of absence or otherwise).

Frequent absence from lecture is inconsiderate and moreover such absences generally lead to poor performance on homework and exams.

## 11. POLICY ON MISSED OR LATE WORK

In most cases:

- Late homework is not accepted (i.e. a homework assignment not received by the stated deadline will result in a score of zero)
- Missing an exam results in a score of zero

Exceptions are made with instructor approval and only under extraordinary circumstances, such as a severe illness, injury, or similar emergency. Documentation may be required. Students should contact the instructor as soon as possible regarding any missed or late work if they believe this policy applies.

## 12. CLASSROOM BEHAVIOR

In order to provide a classroom environment most conducive to learning, and to minimize distractions, students are asked to follow these guidelines:

- Use of electronic devices during class should be limited to purposes directly related to the course, such as note-taking<sup>1</sup>.
- Electronic devices should be silenced during class.
- Making or receiving phone calls in the classroom is prohibited.
- Please do not eat in class. (If this policy creates a hardship, please contact the instructor.)
- Video recording or photography in class requires advance permission from the instructor.

## 13. UNIVERSITY POLICIES

UIC requires that every syllabus mention the following university policies.

13.1. **Academic deadlines.** The UIC academic calendar can be found at:

<http://catalog.uic.edu/ucat/academic-calendar/>

In particular this calendar includes the deadlines for adding and dropping courses.

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<sup>1</sup>Taking notes by typing on a computer keyboard is *not* recommended, though it is permitted.

**13.2. Academic honesty.** All UIC students are required to maintain the standards of academic integrity described in the *Guidelines Regarding Academic Integrity*:

<http://dos.uic.edu/docs/Guidelines%20for%20Academic%20Integrity.pdf>

In particular, this policy prohibits plagiarism. Any violation of these standards will be handled in accordance with the [Student Disciplinary Policy](#).

**13.3. Disability accommodation.** The University of Illinois at Chicago is committed to maintaining a barrier-free environment so that students with disabilities can fully access university programs, courses, services, and activities. Students with disabilities who require accommodations for access or participation in this course are welcome, but must be registered with the Disability Resource Center (DRC). Students may contact the DRC at 312-413-2183 (voice) or 312-413-0123 (TTY). Further information is available from the DRC web page (<http://drc.uic.edu/>).

**13.4. Religious holidays.** The UIC Senate Policy on religious holidays (approved May 25, 1988) is as follows:

"The faculty of the University of Illinois at Chicago shall make every effort to avoid scheduling examinations or requiring that student projects be turned in or completed on religious holidays. Students who wish to observe their religious holidays shall notify the faculty member by the tenth day of the semester of the date when they will be absent unless the religious holiday is observed on or before the tenth day of the semester. In such cases, the students shall notify the faculty member at least five days in advance of the date when he/she will be absent. The faculty member shall make every reasonable effort to honor the request, not penalize the student for missing the class, and if an examination or project is due during the absence, give the student an exam or assignment equivalent to the one completed by those students in attendance. If the student feels aggrieved, he/she may request remedy through the campus grievance procedure."

The University Holidays and Religious Observances calendar can be found at:

<http://oae.uic.edu/religious-calendar/>

#### 14. REVISION HISTORY OF THIS DOCUMENT

- 2018-08-13 Initial syllabus publication.
- 2018-09-16 Add explanation that two lowest homework scores will be dropped.
- 2019-09-23 Removed statement about not receiving credit for both Math 310 and Math 320, since this university policy is no longer in place.