MATH 355: LINEAR ALGEBRA - SUMMER 2015 SESSION 3

COURSE INFORMATION

Instructor: Kenan Ince
Office: Herman Brown 36
Email: kenan@rice.edu

Office Hours: To be decided on the first day of class. You can come to office hours whether or not you have any particular questions; I’m always glad to chat about class, math, study skills, time management, and whatever else is on your mind.

Class Meeting Time: MTWRF 10:30AM-12:00PM
Classroom: WSC 123
Course Website: http://math.rice.edu/~kai

TEXT

Linear Algebra with Applications, by Steven J. Leon, 8th edition. We will cover Chapters 1-7 of the printed text, plus the online Chapter 9.

OBJECTIVES

Topics to be covered include solutions to systems of linear equations, linear transformations and matrices, determinants, eigenvalues and eigenvectors, inner product spaces, quadratic forms, and Jordan canonical form. Additionally, students will gain experience in formulating mathematical arguments.

GRADES

Grades will be based on written homeworks, two midterm exams, the final exam, and class participation.

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm Exam</td>
<td>30%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>40%</td>
</tr>
<tr>
<td>Homework</td>
<td>20%</td>
</tr>
<tr>
<td>Participation (and Attendance)</td>
<td>10%</td>
</tr>
</tbody>
</table>
ATTENDANCE

While much of your learning will occur while you take notes and do homework problems, being present in class is equally important. As a result, attendance is required. You are, nevertheless, allowed one unexcused absence throughout the term. All judgments about excused and unexcused absences will be at my discretion, but if you wish to receive an excused absence, you must receive approval from me before the missed class period. The only exceptions to this rule are medical emergencies affecting yourself or your family. In all cases, I may or may not ask for supporting documentation for excused absences.

ELECTRONIC DEVICES

I believe it is near-impossible to take math notes on a laptop unless it is a tablet equipped with a pen (which is allowed). Because I do not allow other types of electronic devices to be used in class, if you do not have a tablet with pen support, you will need to buy hard copies of the book and print out hard copies of the material you access through Owl-Space.

TAKING NOTES

Recent research has found that emphasis on memorization when note-taking (i.e., writing everything down verbatim) leads to surface-level learning that disappears as soon as new information is introduced. If you’ve ever completely forgotten what you’ve learned in a course mere months after taking it, you’ve experienced this firsthand. And this is true whether you’re relying on notes to store the information or the sheer power of your own oral and visual memory.

Yet, we also know that taking notes in a way that processes the information you encounter can help you to learn the material in lasting ways. And this holds true regardless of whether you ever go back to review those notes in the future. That is to say, engaging the ideas you encounter, as you encounter them, can help you to process them in a way that allows you to remember, understand, and successfully apply them for many years to come.

There are, of course, many ways to engage the material you encounter in a course. Yet, we know that personalized, written reflections are especially effective at increasing your understanding of the material.

For these reasons, taking notes is a requirement of this course.

EXAMS

There will be one midterm exam and a scheduled comprehensive final exam. The midterm exam will be in class on Wednesday, July 8. The final exam will take place on the last day of class, Friday, July 24, and will likely be longer than the normal class period.

The exams will consist of a mix of different types of questions, including True/False, multiple choice, and short answer/definitions, but will be heavily weighted toward traditional “solve and show your work” type computations.
You may use a four-function or scientific calculator on the exams, but you must provide it yourself - I will not have any extras to loan out. Your calculator must be an actual calculator - you may not use a graphing calculator or a tablet or smartphone calculator app.

**Homework**

Written homework will be due each Monday, Wednesday, and Friday that the class meets. Homework solutions must be legible and well organized, and where necessary your steps must be clearly explained. You are encouraged to spend at least two hours out of class doing homework and reviewing class material for every hour in class.

You are encouraged to collaborate with other students in the class to solve the problems, but your write-up must be your own individual work. Unless explicitly specified in the assignment, you may not use computer programs or symbolic calculators to find your answers.

I will not accept late homework for any reason.

**Disability Support**

If you have a documented disability that will affect your work in this class, please contact me within the first week to discuss accommodations. Students with disabilities will also need to contact disability support services.

**Honor Code**

At the most general level, I will hold you to the standards of the Rice Honor Code, a code that you pledged to honor when you matriculated at this institution. If you are unfamiliar with the details of this code and how it is administered, you should consult the Honor System Handbook at [http://honor.rice.edu/honor-system-handbook/](http://honor.rice.edu/honor-system-handbook/). This handbook outlines the University’s expectations for the integrity of your academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process.

**Syllabus Change Policy**

This syllabus is only a guide for the course and is subject to change with advanced notice.