MATH 3315.001, Fall 2025
Linear Algebra — Syllabus

Instructor Information

Professor:	Dr. Stephen Graves
Office:	RBN 4011
Email:	sgraves@uttyler.edu
Dept. Phone:	903-565-5839

The preferred method of contact is via Canvas.
uttyler.instructure.com

Class Meeting Times

Section	Days	Times	Location
001	MoWeFr	09:05 – 10:00	RBN 3038

Office Hours

Mo	08:00 — 08:55	RBN 4011
WeFr	11:15 — 12:10	RBN 4011

Also by appointment arranged by email

---

1. Course Information

1.1. Official Course Description. A study of finite dimensional vector spaces and linear transformations with emphasis given to the basic theory of matrices.

1.2. Course Prerequisites. A grade of C or better in Mathematics 3425, Foundations of Mathematics, or concurrent enrollment.

1.3. Student Learning Outcomes. Upon completion of this course, students should be able to do the following:
- Understand and use abstract mathematical concepts (critical thinking)
- Solve systems of linear equations
- Perform matrix arithmetic operations, find eigenvalues and eigenspaces, and diagonalize matrices
- Represent linear transformations by matrices
- Determine dimension and bases for finite dimensional vector spaces

2. Important Dates

25 Aug. First Day of Classes; **1 Sep.** Labor Day (*No Classes*); **8 Sep.** Census Date; **3 Nov.** Withdrawal Deadline; **24 Nov. − 28 Nov.** Thanksgiving Break (*No Classes*); **08 Dec. − 12 Dec.** Final Exams

3. Course Content

3.1. Required Texts.
a. **Primary, FCLA** *First Course in Linear Algebra* by Rob Beezer.[1] We will cover the majority of the textbook.
b. **Secondary** *3blue1brown: Linear Algebra* by Grant Sanderson.[2]
c. **Recommended** *The 5 Elements of Effective Thinking* by Edward Burger and Michael Starbird.[3] ISBN 978–0691156668

3.2. Canvas & Email. You are expected to check Canvas at least daily, and also expected to check your university email. **All non-exam work will be submitted via Canvas**.

3.3. Grading. Scores will be posted on Canvas. After the end of the semester, final course grades will be available at https://my.uttyler.edu. A final course grade of 70% is guaranteed to be a C; a final course grade of 80% is guaranteed to be a B; a final course grade of 90% is guaranteed to be an A. All grades below C will be F.

3.4. Course Structure. The course content will be organized by Canvas modules. Your grade will be computed on the 100% scale by a weighted average: lecture notes and homework quizzes will count for 10%. in-class exams will have a total weight of 60%, and the final exam will have a weight of 30%.

$$\text{Grade} = .05(\text{LN}) + .05(\text{HQ})$$
$$+ .60(\text{EXAMS}) + .30(\text{FINAL}) \leqslant 100.$$

3.5. Lecture Notes, 5%.
- In order to encourage attendance, you will be required to scan and upload your hand-written course notes before 23:59 on the same day as class.
- When you miss class, make sure to obtain lecture notes **from a classmate** and submit them before the deadline.
- Completed notes will not be provided by the instructor.
- Each day's notes will be graded as a 0 (no meaningful notes), 1 (halfway complete and meaningful notes), or 2 (complete and meaningful notes).
- The notes *do not need to be an exact transcript of class to be complete*, but must contain all meaningful ideas from class.
- There are more than 35 days for which notes can be submitted; your grade for lecture notes will be calculated as the average of your highest 35 grades.

3.6. Homework, 5%.
- Homework will be assigned daily.
- You are encouraged to work together and even more textbfly encouraged to contact me when you struggle.
- Homework must be written by hand, scanned, and uploaded to Canvas before 23:59 on the due date.
- Homework will be checked for *completeness only*, on a similar scale as lecture notes: 0 for minimal completion, 1 for at least half completion, and 2 for full completion. This is to encourage you to attempt the homework before class without the stress-for-correctness that often leads students to cheat. *These grades will be diagnostic only and not count to your course grade.*
- Each week a problem selected from the homework will be given on Friday as a quiz, in-class.
- Homework quizzes will be graded for correctness. *These grades will count for your course grade.*

3.7. In-class Exams, total 60%. There will be 3 comprehensive in-class exams. **Tentative dates**: 15 September, 10 October, 7 November.

3.8. Final Exam, 30%. The comprehensive final exam grade will be reported on the 4.0 scale (with interpreted letter grade). Students who do not take the final earn an F for the course.

3.9. Extra Credit. If you have a positive score on at least 35 lecture notes and all homework quizzes, your final exam will replace your lowest in-class exam grade *if that improves your overall grade.*

4. Course Policies

4.1. Academic Honesty. *All work submitted must be your own.* Violations will be processed according to the established guidelines of the department, college, and university. Violations of academic integrity include – but are not limited to – cheating, fabrication (also called falsification), or plagiarizing. A range of academic sanctions may be taken against a student who engages in academic dishonesty.
- Submitting the *homework* or *lecture notes* of another student is **plagiarism**.
- Submitting work generated by "AI" (large language models, diffusion models, etc.) as if you had created it without the software tool is **plagiarism**.
- Find the answers to assigned work online and submitting it as your own work is **plagiarism**.
- **Plagiarizing work will result in a grade of 0 for the category**, not just the assignment.
- Cheating on an exam will result in an F for the **course**.
- Posting copyrighted material to the internet without the prior written permission of the copyright holder is **illegal**.

4.2. Civil Environment. The free exchange of ideas is a central part of a university education. Class will be conducted in a polite and professional manner and I expect students to behave politely and professionally. *Disruptive behavior will not be allowed and is judged at my sole discretion.* Persistently bad behavior will result in your removal from the classroom.

4.3. Personal Electronics. Students are required to have access to a device capable of accessing Canvas and a device capable of scanning hand-written work for upload to Canvas.

4.4. Late & Missed Work.
- Late work will not be accepted
- Missed lecture notes, homework, and homework quizzes will count as 0s
- Absences for homework quizzes due to University-sponsored obligations must be communicated at least two weeks in advance
- Absences due to religious obligations must be communicated before 5 September
- All other absences are unexcused
- Make-up homework quizzes due to excused absences will be given during the next-available office hours *and will contain content different than the in-class quiz*
- Alternative testing will be arranged for excused absences.
- A student missing one exam due to documented illness or emergency is eligible to replace the missed exam grade with the grade from their final exam. *This makes you ineligible to receive extra credit.*
- Students missing more than one in-class exam have failed the course and will receive an F.
- Students missing the final exam have failed the course and will receive an F.

4.5. Final Exam Policy. A student who earns an F on the final exam will receive an F for the course.

5. University Policies

The University has many policies required to be disclosed to students; as they frequently change, and in fact the location of the list of these policies frequently changes, it is better to read the **University Policies and Information** page linked from the Canvas course.

Notes

1. Runestone ebook edition: `https://runestone.academy/ns/books/published/fcla/front-matter.html`

2. `https://www.3blue1brown.com/topics/linear-algebra`

3. This inexpensive book can totally change how you view learning and I recommend it to anyone who thinks they might struggle with course material, whether or not they're in my classes.