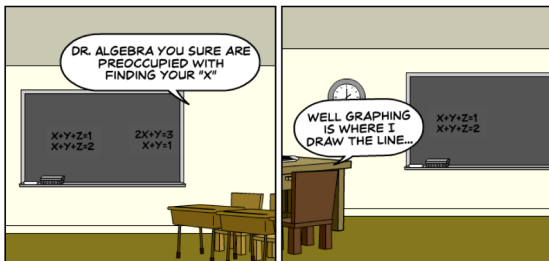## *Welcome to Linear Algebra!*

ASU: "Face-to face component is not a lecture but provides time for discussion, demonstrations, problem-solving, and higher-level thinking and collaborative activities. Class time is used to apply course content in ways that can only be accomplished when everyone is together in the same place"

https://cetlss.appstate.edu/teaching-learning/course-delivery-options

announcements, your questions, starting next time: handwrite that gets turned in to ASULearn, activities review and extend

Where to Get Help

- class—I'm here to help!

- 💬 need help from me, tutoring, class, or tech support
    -e-Z check in Zoom office hours:
        Tues/Thur 9:45–10:30am and 2–3pm
        Sun/Mon/Wed 7–7:45pm
    -private message (NOT e-mail, which gets buried)

    I care about you and your success!

Where Did Our Third Hour Go?

- rolled into the between class time on activities in ASULearn!

Course and Module 1 Overview

- Linear Systems of Matrix and Vector Equations
  - 1.1, 1.2 & 1.5: Gaussian elimination, algebra and geometry of solutions of systems of equations
  - 1.4: connects all via multiplying a matrix and a vector
  - 1.3 and 1.7: algebra and geometry of column vectors (linear combinations/mixing, span, linear independence)

  problem set 1

- Matrix Algebra and Spaces
  problem set 2
  in-class assessment 1

- Linear Transformations and Orthogonality
  problem set 3

- Determinants, Eigenvalues and Eigenvectors
  problem set 4
  in-class assessment 2

- Final Activities and Project

Scientific Computing and Linear Algebra

no eating or drinking at tables, but you may step away if you need to hydrate or similar!

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Active Learning Handwrite

- unsolved Collatz conjecture, named for Lothar Collatz
- prizes
  $1,000,000 provided the proof appeared in a reputable mathematics journal before 2004
- Terrance Tao (2019)

	Class Tues	Between Classes (by 10:30am Thur)	Class Thur	Between Classes (by 10:30am Tues)
8/19–8/21	active learning handwrite	2240 video download Maple (free) access e-text 1.1 read the e-text 1.1 interactive video 1.1 practice quiz syllabus	1.1 hand-write t-shirt Wed	turn in 1.1 handwrite 1.2 read the e-text 1.2 interactive video 1.2 practice quiz Maple intro video submit PDF ASULearn pic Zoom update & pic
8/26–8/28	1.2 handwrite	re-engage 1.1 turn in 1.2 handwrite 1.3 read the e-text 1.3 interactive video 1.3 practice quiz	1.3 hand-write t-shirt Thur	re-engage 1.2 turn in 1.3 handwrite 1.4 read the e-text 1.4 interactive video 1.4 practice quiz

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