Chandler Unified School District
MAT485A Linear Algebra and Advanced Math Topics
SY 2023-24

Course Overview

Course Description
This college-level course includes the topics of introduction to matrices, theories of systems of linear equations, determinants, vector spaces, linear transformations, and eigenvalues. It emphasizes the development of computational skills and independent research. Students will use the standards for mathematical practice to engage with the subject matter

AP/IB/Dual Enrollment
May be offered for Dual Credit.

Prerequisite/Fee(s)
AP Calculus BC

Course Materials
Access to Teams and OneNote, AP-approved graphing calculator (see list of allowed calculators on the class OneNote page), paper and pencil. Hamilton High School will supply the course textbook.

Adopted Resource(s)
Elementary Linear Algebra 11th Edition., Anton & Rorres (Wiley)

An asterisk will indicate a resource containing sexually explicit materials per legislative definitions. CUSD has determined that all resources listed above are of exceptional educational value.

Site and Faculty Information

School name and address:
Hamilton High School, 3700 S Arizona Ave, Chandler, AZ 85248

Building principal:
Michael Delatorre
delatorre.michael@cusd80.com

Teacher:
Mr. Chuck Weeks BS, MEd
weeks.charles@cusd80.com
Office hours: Before and after school by appointment. (Basically, If I'm here, I'll be available for tutoring.)

Course Access

This course is taught in-person at Hamilton High School. Students will have access to the curriculum and instruction in the classroom. Google Classroom is the primary location for students to access material when absent from classes taught in person.

Help

Academic Support
- Contact the teacher to schedule an appointment during office hours
- Ed Tech support for students, parents/guardians, and community link (cusd80.com/Page/45109)

Mental Health Support
- CUSD mental health support cusd80.com/Domain/10528 or 480-573-8808 (talk or text)
- Suicide & Crisis Lifeline: 9-8-8 hotline
- 24-hour Crisis Line Talk: 602-222-9444, Text: 741-741

Student Conduct, Success, and Responsibilities

Student Handbook
Students must follow the policies and procedures established in the Student Handbook. Copies of the handbook can be found at cusd80.com/handbooks. Printed copies will be provided upon request.

Student Responsibilities
Student responsibilities and expectations will be addressed in an addendum to this syllabus.

Late work
In most cases late work receives a 10% reduction each day late. See me for special circumstances.

Assessments and Assignments

Students will complete assessments during each unit of study to assess their understanding. Students will complete the CUSD Common Final at the end of the first and second semesters. The Common Final will count for 20% of the student's final semester grade in grades 9-12 and 10% in grades 7-8 (some exceptions may apply at the Junior High level). Common finals will be in ELA, Math, Science, Social Science, and World Language.

Final exams will be given during the CUSD Jr High/High School Early Dismissal days in December and May, as identified on the District Calendar.

If students are requested to participate in a survey, the survey questions will be provided to parents/guardians seven days before student contact.

Grading

Grade Percentage

A	B	C	D	F
90% - 100%	80% - 89%	70% - 79%	60% - 69%	<60%

Quarter grades
The course final exam counts 20% while course tests, quizzes, and homework count 80%. Of that 80%, tests and quizzes count 85% while homework and participation count 15%. This policy deviates from the HHS Math Department grading policy due to the advanced nature of the course. (Linear algebra is typically taken by 5th semester university STEM students.)

Semester grades
Semester grades are calculated using 80/20: A combination of the two quarters accounts for 80% of the semester grade and the final exam accounts for remaining 20%.

Units of study

Units for MAT485A Linear Algebra and Advanced Math Topics
Systems of linear equations and matrices
Determinants
Euclidean vector spaces
General vector spaces
Eigenvalues and eigenvectors
Inner product spaces
Diagonalization and quadratic forms
General linear transformations
Numerical methods
Applications of linear algebra
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Parent/Guardian
Acknowledgment

Parents/Guardians should indicate if they "Acknowledge" or have a "Potential Conflict" with their student's participation in the following units by checking the appropriate box for each unit of study listed. Students cannot opt out of a standards-based unit. Marking "Potential Conflict" will prompt the teacher to make contact regarding assignment alternatives.

Unit of study	Acknowledge	Potential Conflict
Systems of linear equations and matrices	☐	☐
Determinants	☐	☐
Euclidean vector spaces	☐	☐
General vector spaces	☐	☐
Eigenvalues and eigenvectors	☐	☐
Inner product spaces	☐	☐
Diagonalization and quadratic forms	☐	☐
General linear transformations	☐	☐
Numerical methods	☐	☐
Applications of linear algebra	☐	☐

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By signing and returning this form, the parent/guardian acknowledges they have reviewed the resources and units of the study included in the syllabus.

☐ As the parent/guardian, I understand that I may contact the teacher if I have questions about the resources, content, or units of study.

☐ As the parent/guardian, I understand I can check my student's grades in Infinite Campus anytime during the school year.

Student name (printed) _____

Student signature _____

Parent/Guardian name (printed) _____

Parent Signature _____

Date _____

Please return this page to your student's teacher.