

Office Hours During Final Exam Week

Mon.	4/28	Giving final exams. No office hours
Tue.	4/29	2:00 - 3:00
Wed.	4/30	2:00 - 3:00
Thu.	5/1	By appointment

MA 345 Final Exam
Monday, April 28 at 7:15 PM in COAS 108

Any of the following will be on the exam:

Matrix methods

First order differential equations

Higher order linear differential equations

Matrix Methods

Determinants

Inverses

Matrix reduction and solution of $\mathbf{A}\vec{\mathbf{x}} = \vec{\mathbf{b}}$

Eigenvectors and eigenvalues

Systems of linear differential equations

Matrix differential equations

$$\frac{d\vec{\mathbf{x}}}{dt} = \mathbf{A}\vec{\mathbf{x}}$$

First Order Differential Equations

Separation of variables

Equations of the form $\frac{dy}{dx} + P(x)y = Q(x)$

Equations of the form $M dx + N dy = 0$

Applications of first order equations

Higher Order Linear Differential Equations

Linear homogeneous equations: $a\frac{d^2y}{dt^2} + b\frac{dy}{dt} + cy = 0$

Series solutions: $y = \sum a_n x^n$

Nonhomogeneous equations

Method of undetermined coefficients

Method of variation of parameters

Method of Laplace transforms

Applications to springs and circuits



“This C+ isn’t consistent with
the vision I have of myself.”

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Grading System

Exam Average	85%
Homework Average	15%

Borderline decisions are based on attendance record.

Let H be your homework average.

Let T_1 , T_2 and T_3 be your midterm exam scores.

Let x be your score on the final exam.

$$\text{Average} = 0.15H + 0.85 \left(\frac{T_1 + T_2 + T_3 + x}{4} \right)$$

Conduct During Exams:

Students will not be allowed to bring any formula sheets or notes to exams. Students may not receive assistance from classmates or attempt to copy the work of a classmate during an exam. Violators are subject to immediate failure in the course as well as other administrative sanctions such as suspension if appropriate. Use of cell phones or smart watches during exams is forbidden.

Good luck on your final exams