

INSTRUCTORS:

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TEXTS: Lay, *Linear Algebra and Its Applications*, 4th ed.

Boyce & DiPrima, *Elementary Differential Equations and Boundary Value Problems*, 10th ed.

DESCRIPTION: Approximately the first two thirds of the course will cover the first six chapters of Lay's book. Starting around March 25 we will move to Boyce and DiPrima to cover the first three chapters there. The course will focus on the fundamental theory of linear algebra and then the beginnings of differential equations. When we're finished with Lay's book you should have a good understanding of systems of linear equations, how to determine whether solutions exist and if so how to find them all. We should also be able to think about these equations from the more abstract vector space viewpoint. The chapters of Boyce and DiPrima will allow us to recognize common kinds of differential equations and find solutions.

The methods we develop are fundamental to all of mathematics, science, engineering and economics, as you'll no doubt discover if you continue studying these fields. Unfortunately we'll have very little time to discuss applications this semester, so for motivation it would be nice to do some background reading, starting perhaps with the chapter introductions and section 1.6 in Lay's book.

CLASSES:

Section 1: MWF 8:20–9:10, PASQ 107.

Section 2: MWF 10:30–11:20, PASQ 107.

Section 3: MWF 11:30–12:20, DBRT 136.

Section 4: MWF 3:00–3:50, PASQ 107.

Section 5: MWF 9:25–10:15, PASQ 107.

Section 6: MWF 12:50–1:40, PASQ 107.

TUTORIALS:

Section 1:

MATH 22580–11	Thu 11:00–11:50	DBRT 119	Eric Wawerczyk, ewawercz@nd.edu
MATH 22580–12	Thu 9:30–10:20	HAYE 231	Michael Haskel, mhaskel@nd.edu

Section 2:

MATH 22580–21	Thu 11:00–11:50	HAYE 117	Michael Haskel, mhaskel@nd.edu
MATH 22580–22	Thu 2:00–2:50	HAYE 229	Michael Haskel, mhaskel@nd.edu

Section 3:

MATH 22580–31	Thu 3:30–4:20	HAYE 231	Eric Wawerczyk, ewawercz@nd.edu
MATH 22580–32	Thu 12:30–1:20	HAYE 231	Eric Wawerczyk, ewawercz@nd.edu

Section 4:

MATH 22580–41	Thu 3:30–4:20	PASQ 112	James Benn, jbenn2@nd.edu
MATH 22580–42	Thu 2:00–2:50	HAYE 231	Cunlu Zhou, czhou3@nd.edu

Section 5:

MATH 22580–51	Thu 9:30–10:20	RILEY 200	James Benn, jbenn2@nd.edu
MATH 22580–52	Thu 12:30–1:20	HAYE 117	James Benn, jbenn2@nd.edu

Section 6:

MATH 22580-61 Thu 12:30-1:20 RILEY 301 Cunlu Zhou, czhou3@nd.edu
MATH 22580-62 Thu 9:30-10:20 PASQ 109 Cunlu Zhou, czhou3@nd.edu

EXAMS: There will be three exams and a final on the following dates:

Exam 1 Thu, Feb 12, 8:00 – 9:15 A.M.
Exam 2 Thu, Mar 5, 8:00 – 9:15 A.M.
Exam 3 Thu, Apr 16, 8:00 – 9:15 A.M.
Final Thu, May 7, 1:45 – 3:45 P.M.

Exams may be made up only with an excused absence from the Assistant Vice President for Residence Life. Conflicts with exams in other courses must be resolved during the first week of classes. Calculators will not be allowed on exams.

COURSE WEB PAGE: www.nd.edu/~rhind/20580spring15.htm.

This includes all instructor and TA office hours and rooms for exams. Before the exams we will also post information about a review session and a practice exam.

ASSIGNMENTS: Assignments will be posted on the course web page. An assignment will be due most Fridays. Unfortunately we cannot accept late homeworks, but will ignore everyone's two lowest scores at the end of the semester.

HONOR CODE: The Honor Code is in effect for all exams and assignments. You are encouraged to work together on assignments, but copying in any form or submitting work done by others as your own is a violation of the Honor Code.

GRADES: Grades will be based on a total of 550 points broken down as follows. The quizzes will take place most weeks during tutorial and test material already covered in class by the previous Monday. If you have an excused absence then your quiz score will be scaled to take account only of the quizzes you were able to take.

Assignments	=	50
Quizzes	=	50
Exam 1	=	100
Exam 2	=	100
Exam 3	=	100
Final	=	150