Differential equations and linear algebra: Syllabus

Samy Tindel

Purdue University

Differential equations and linear algebra - MA 262

Outline





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My Purdue information

History:

- 7th year as Professor at Purdue
- Before that: in Nancy (France)

Office: 434, Math building

Email: stindel@purdue.edu



Office hours: Thursday 2:00-3:30pm, via Zoom

Webpage: https://www.math.purdue.edu/ stindel/

Advertising differential equations

Differential equations:

- Interesting from a mathematical point of view.
- Crucial for engineering.

Great names related to the field:

- Newton
- Leibniz
- Bernoulli
- Euler
- Laplace
- Legendre
- Computers

Brief outline of the course

Chapters covered: from Pearson's Edwards-Penney-Calvis

- First order differential equations.
- Ø Mathematical models and numerical methods
- Linear systems and matrices.
- Vector spaces.
- Itigher order differential equations.
- Systems of differential equations.

Remark: Fast pace!

Outline





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Course webpage: to be consulted often

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https://www.math.purdue.edu/MA262
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Contents:

- Course-wide announcements
- Instructor contact information

Homework and Quizzes

Homework:

- Online homework problems
- Online homework is accessed through MyMathLab
- Due dates accessed through *MyMathLab* and calendar (accessible on my webpage)
- TAs: Che-Hung Huang and Andreas Kavouras

Quizzes:

• On Friday, run by the TAs

Homework with MyMathLab

Sign up for web assignments:

Through MyMathLab, monitored by the TAs

More information:

• On the course webpage

Exams

Exams will be in person: Two one hour long midterms (100 points each) and a two hours long final exam (200 points).

- Exam 1: Feb 21, covers lesson 1 to 14.
- 2 Exam 2: April 4th, covers lessons 15 to 27.
- Sinal exam, TBA by Purdue: covers Lessons 1 to 36.

Grades:

- Average of online homework 100 points (3 lowest scores are dropped)
- Quizzes 100 points (3 lowest scores are dropped)
- Midterm exams 100 points each (200 points total)- No exam scores are dropped
- Final Exam 200 points
- Total: 600 points

Cutoffs

Grading Scale:

- A+: 570 600, A: 540 569, A-: 510- 539
- B+: 480 509, B: 450-479, B-: 420-449
- Section 20 C+: 390-419, C: 360-389, C-: 330-359
- D+: 300-329, D: 270 299 No D minus
- Section F: 269 or below
- Borderline cases (for example, 539.5 points) will be considered on a case by case basis.

These cut-offs may be lowered, but they will nor be raised. For example, students with 540 points will get an A, but it is possible that students with 530 will get an A.

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Grades

Total score calculation:

- Homework 100 pts. Quizzes • 2 Midterm exams at 100 pts. each 200 pts.
- Final Exam

100 pts. 200 pts.

Attendance

Attendance:

- Class attendance is expected.
- Strongly recommended: Reading the sections in the textbook ahead of time

Withdrawal

Withdrawal policy:

- 1/24 5pm Last day to cancel a course assignment without it appearing on record
- 2/7 5pm Last day to withdraw from a course with a W or to add/modify a course
- 3/11 5pm Last day to withdraw from a course with a W or WF

Academic honesty

Academic dishonesty:

- Reminder: cheating is not fair to your peers.
- We are committed to reporting any event of this kind.
- See http://www.purdue.edu/odos

Tip for the Exam:

• Don't get a F for stupid reasons!

Purdue Honor Pledge:

As a boilermaker pursuing academic excellence, I pledge to be honest and true in all that I do. Accountable together - we are Purdue.

Other topics

Accommodations for students with disabilities:

- Be certified by the Disability Resource Center (DRC) as eligible for academic adjustments on exams or quizzes.
- Contact me.

Online course evaluation system:

During the last two weeks of the semester.

Campus Emergency Notice: see

http://www.math.purdue.edu/MA262