MA 26600 OL1 DIS & 901 LEC

Ordinary Differential Equations

Spring 2021

PLEASE NOTE: The syllabus below is specific to sections 901 and OL1 and is in addition to the MA 26600 ground rules and the information found in the MA 26600 Course Website.

Instructor Information

Instructor: Nikolas Eptaminitakis
Office: MATH 413
Email: neptamin@purdue.edu
Office Hours: Online, time and days TBA.

Communication: You can contact me via email; I generally try to respond within 24 hours. For math related questions you are strongly encouraged to post on the class discussion forum on Piazza. Please follow the link below to enroll:

`https://piazza.com/class/kjzsmv75fxa11a`.

Course Information

Course Content and Prerequisites: The course focuses on solution techniques for various types of Ordinary Differential Equations which appear in practice. It aims to help you acquire problem solving skills necessary for science and engineering. There are also computer projects which will help you familiarize yourself with numerically solving Ordinary Differential Equations using suitable software.

To succeed in this class you will need to be comfortable with differentiation and integration. Although linear algebra is not strictly required, it is highly recommended that you either have taken it in the past or are taking it at the same time as this class, since we will often make use of operations on matrices, eigenvalues and eigenvectors, among other concepts, during the second half of the semester.

Lecture Delivery: The lectures will be delivered through Zoom. Attendance will not be recorded. Recordings of each class will be posted on Brightspace, in the Gallery:

`https://purdue.brightspace.com/d2l/ext/rp/215961/lti/framedlaunch/ee0ed975-ac1a-4073-b0e9-a2d907c8dff7`.

I will try to have the recordings posted within two hours of the end of lecture. If you cannot find the recording, please do not hesitate to contact me.

Textbook: *Differential Equations & Boundary Value Problems*, 5th edition, by Edwards, Penney, and Calvis. It can be accessed through MyLab Math in Brightspace. You are expected to read the textbook, and you are strongly encouraged to read the textbook ahead of time. The lectures schedule can be found under the Calendar:

`https://www.math.purdue.edu/~neptamin/266Sp21/MA%20266%20901%20&%20OL1.html#calendar`

Grading: The grading policy and weights distribution is common for all sections of MA 266; please see the MA 266 Course Ground Rules for details.

Homework: There is online and handwritten homework; a list of all assignments can be found by following the link below:

`https://www.math.purdue.edu/academic/files/courses/2021spring/MA26600/MA266-S21-assignment.pdf`.

The online homework is in MyLab Math and is accessed through Brightspace. The handwritten homework must be submitted on Gradescope. Homework will generally be due once a week, usually but not always on Tuesdays at 11.59 pm Eastern Time. **If you are not in the United States during the semester please be mindful of the fact that not all countries change to Daylight Saving Time on the same date.**

- The three worst online homework scores will be dropped, and the rest will be equally weighted in the grade calculation. **No extensions will be given for online homework**.
- No handwritten homeworks scores are dropped, and all assignments will be equally weighted in the grade calculation. Each student will be allowed **a total of 3 no-questions-asked 24 hours deadline extensions throughout the semester, between the handwritten homework and the computer projects**. **You do not need to contact me to use those extensions**; I will be keeping track of them. If 2 Homework assignments are due on the same day, submitting both of them them a day later will count as using one extension. You can combine 2 or 3 of your extensions to get a 48 or 72 hour extension respectively for one Homework or Computer Assignment, but **in this case you will need to contact me ahead of time for permission**.

Computer Projects: There are three short computer projects which can be found in the course website (also in the MA 26600 Course Website):

`https://www.math.purdue.edu/~neptamin/266Sp21/MA%20266%20901%20&%20OL1.html#computer-projects`.

The printouts must be submitted via Gradescope. The due dates can be found in the course calendar. Computer Projects will be equally weighted in the grade calculation and none of them is dropped.

Quizzes: Instead of midterms there will be 6 Quizzes, consisting of a combination of multiple choice and free response questions. Details on the logistics will be announced soon. ~~As per departmental policy, all exams are **closed book** and **closed notes** and **proctoring software will be used**. More information on this will be released as soon as it becomes available but **you should anticipate that you will need access to a computer with a web camera for the exams**~~. Quizzes will be equally weighted in the grade calculation and none of them is dropped. For the dates please see the Course Calendar.

If you have a compelling, verifiable and unavoidable reason to miss a test please contact the instructor as soon as possible.

UPDATE 02/18: This update reflects an update of the course-wide ground rules and departmental rules. The quizzes will unproctored, and they will be **open book/notes/internet**. You can use

calculators or software such as Mathematica, Matlab, Wolfram Alpha etc. **You are not allowed to collaborate, share/post online the exam questions, or use external help by classmates or third parties; this includes, but is not limited to, online resources such as Chegg, GroupMe and StackExchange, which are strictly forbidden. The work you submit must reflect your own understanding of the material.** Each quiz will be available for a 24-hour window.

Final Exam: There will be a multiple choice two-hour long final, common across sections, during final exam week. More information will be released as soon as it becomes available.

UPDATE 02/18: The proctoring software Examity will be used for the final exam. You should plan to have access to a computer with a web camera for the final exam. **The final exam will be closed book.**

Diversity Welcome: Purdue University is committed to maintaining a community which recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her own potential. In pursuit of its goal of academic excellence, the University seeks to develop and nurture diversity. The University believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchange of ideas, and enriches campus life.