MAT2384C Ordinary Differential Equations and Numerical Methods Winter 2019

Syllabus

Classes:

Mondays 17:30 – 19:00 STE B0138

Mondays 19:00 – 20:00 STE B0138 (Numerical Methods)

Wednesdays 16:00 – 17:30 STE B0138

Professor:

Dr. Tanya Schmah tschmah@uottawa.ca 562-5800 x3489

Office Hour: Monday 12:00 – 13:30 STM 543

Virtual Campus (BrightSpace):

All grades and all course announcements, including possible updates to this document, will be posted here. It is your responsibility to check the course announcements at least weekly.

Webpage: https://mysite.science.uottawa.ca/tschmah/MAT2384C

The webpage has a grid with a detailed schedule of topics and assignments.

Help! (how to get it):

- Ask a question in a discussion forum for this course on Brightspace.
- Office hour.
- Email (put "2384" in the subject line). If I don't answer within 2 working days, please remind me.

Textbook:

Ordinary Differential Equations, Laplace Transforms and Numerical Methods for Engineers: Notes for the course MAT 2384, by S.J. Desjardins and R. Vaillancourt (version 2012.04.23). Available at the Docucentre (photocopy centre).

Recommended Reference:

Advanced Engineering Mathematics, by E. Kreyszig, Wiley.

Available at the Campus Bookstore or the Agora Student Bookstore.

Course content: "General concepts. First order equations. Linear differential equations of higher order. Differential operators. Laplace transforms. Systems of differential equations. Series solutions about ordinary points. Numerical methods including error analysis; numerical differentiation, integration and solutions of differential equations."

The course webpage has a detailed schedule and list of topics.

Policy on technology in lectures: Some students like to use screens during a lecture, e.g. using a laptop to take notes, but others can find them very distracting. During lectures for this course, if you want to use a screen, even occasionally, even checking texts on a phone, please sit on the left side of the lecture hall (as you face the boards). If you think you may need to take an emergency call, please sit near an exit. If you're sitting on the **right** side of the room, please keep your phone and other screens out of sight.

Regardless of where you sit, you should not be watching videos, playing games or looking at possibly offensive content. Also, all phones should be silenced.

In general, you should be respectful of your fellow students, who have come here to learn. Please try to not distract or disturb other students with your conversation or your screen use.

Evaluation:

There will be a midterm in class on Monday March 4th at 17:30.

There will be 5 assignments, and your total assignment mark will be the average of your best 4 assignment marks.

There will be a 3-hour **final exam** in the final exam period.

If your final exam mark is at least 45%, then your final mark will be calculated as follows:

Midterm 30% (March 4th)

Assignments 10% Final Exam 60%

<u>However</u>: if your final exam mark is less than 40%, then your final grade will be F; and if your final exam mark percentage is in [40, 45), then your final grade will be E.

In case of absence from the midterm for a <u>valid</u>, documented reason (e.g. medical certificate), the weight of the midterm will be transferred to the final exam. In case two or more assignments are missed for <u>valid</u>, documented reasons, the weight of these assignments will be transferred to the final exam.

Notice:

The University of Ottawa does not tolerate any form of sexual violence. Sexual violence refers to any act of a sexual nature committed without consent, such as rape, sexual harassment or online harassment. The University, as well as student and employee associations, offers a full range of resources and services allowing members of our community to receive information and confidential assistance and providing for a procedure to report an incident or make a complaint. For more information, visit www.uOttawa.ca/sexual-violence-support-and-prevention.