Fall 2017

Class hours: 505 MWF 12:40 - 1:30 BLOC 128 517 TR 12:45 - 2:00 BLOC 133 518 TR 2:20 - 3:35 BLOC 133

Web page: http://math.tamu.edu/~mvorobet/Math308/F17/

Office: BLOC 223A, e-mail: mvorobet@math.tamu.edu Office hours: MWF 10:30 - 12:00, or by appointment

Course Description: Ordinary differential equations, solutions in series, solutions using Laplace transforms, systems of differential equations. Prerequisites: MATH 251 or equivalent; knowledge of computer algebra system.

Course Objectives: This course is to provide students with quantitative and problem-solving skills of differential equations. At the conclusion of this course, students should be able to:

- Solve basic first order ODE.
- Solve higher order linear ODE and systems of linear ODEs
- Be able to construct simple ODE models (linear and non-linear)
- Be able to conduct qualitative analysis of ODE models.

Text:

- (required) Elementary Differential Equations, by Boyce and DiPrima, 10th ed., Wiley, ISBN 978-0-470-45832-7.
- (suggested) Differential Equations with Matlab, by Hunt, Lipsman, Osborn, Rosenberg, 3nd ed., Wiley, ISBN 978-1-118-37680-5.

Course Web Page: The course web page will be my main source of communication to you aside from class and office hours. Check the course page regularly for announcements, exam information and the course schedule.

The Mathematics Department has a web-page for Math 308

http://www.math.tamu.edu/courses/math308/

Email Policy: Check your official TAMU email account regularly. You are responsible for any information I send via email. Because of the privacy rights, I cannot discuss grades via email or over the phone. Please include your name and the section number in the subject line.

Topics covered: This is a course in differential equations. Topics include linear ordinary differential equations and systems of linear differential equations, second order linear equations, solutions using Laplace transforms, numerical methods.

Homework: Homework problems will be assigned every week. The homework problems and the due date will be posted on my web page. You are expected to do all the assigned homework problems. Late homework will not be accepted. If for some reason you can not be in class and turn in your HW in due day, you may drop it off before the class on due day in my mailbox in BLOC 226. Collaboration on homework is allowed, but you have to write your ENTIRE solution by yourself. Similarly written homeworks will receive no credit. When you turn in your homework do not forget to put your name on it, homework number and staple all the sheets. All work must be shown. No credit would be given for the answer that is not supported by any work.

It is very important for your success in class that you do your homework regularly, completing all of the suggested problems and practicing working with MatLab. Visit me to discuss these problems and seek my help if needed.

Examinations: Your grade will be determined by homeworks, two midterms, and a cumulative final exam.

The tentative midterms dates are: 505 Exam I – Oct. 6, Exam II – Nov. 10. 517, 518 Exam I – Oct. 5, Exam II – Nov. 9.

The *final* exam is scheduled for

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505 Dec. 11 10:30 – 12:30 BLOC 128
517 Dec. 13 8:00–10:00 BLOC 133
518 Dec. 13 1:00–3:00 BLOC 133
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No collaboration on the midterms and on the final is allowed. The use of books, cell phones or notes of any sort during exams is not permitted.

Grading Policy:

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EXAM I = 25\%, EXAM II = 25\%, HW = 25\%, FINAL EXAM = 25\%.
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I may curve any grade and will then compute the course grade by the following rule: A for 90 - 100%, B for 80 - 89%, C for 70 - 79%, D for 60 - 69%, and F for 0 - 59%.

Weekly schedule: The (tentative) weekly schedule is posted on the MATH 308 course homepage at http://www.math.tamu.edu/courses/math308/308currentsched.html

Help Sessions: The Mathematics Department offers help sessions for Math 308 students. See http://www.math.tamu.edu/courses/helpsessions.html for schedule and more information.

Make-up Policy:

- No make-ups will be given without written evidence of an official University excused absence (see *University Student Rules*). In addition, you must notify me **NO LATER** than the end of the second working day after the missed assignment.
- In the case of injury or illness, students are required to obtain a confirmation note from a health care professional affirming date and time of a medical office visit regarding the injury or illness.
- Make-up exams will be only allowed due to excused absences and the next possible make-up time be chosen from http://www.math.tamu.edu/courses/makeupexams.html

Late Work Policy: Late work (for which you do not have a University approved excused absence) will NOT be accepted. This includes all written and online assignments.

Scholastic Dishonesty: Copying work done by others, either in-class or out-of-class, is an act of scholastic dishonesty and will be prosecuted to the full extent allowed by University policy. Collaboration on assignments, either in-class or out-of-class, is forbidden unless I grant permission. If you cheat on an assignment, you will receive a zero. Also, you will be reported to the University.

Remember the Aggie Code of Honor:

"An Aggie does not lie, cheat, or steal or tolerate those who do."

For more information about the Honor Council Rules and Procedures visit the web site:

http://www.tamu.edu/aggiehonor

Copyright notice: All course materials (both printed and web-based) are protected by U.S. Copyright Laws. No multiple copies can be made without written permission by the instructor.

Students with disabilities: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit http://disability.tamu.edu.