PRACTICAL INFORMATION

- Class hours: MWF 2:00 p.m.–2:50 p.m.
- Class room: MATH 111 (MWF)
- Instructor: Arunabha Biswas
  Office: MATH 302 E-mail: arunabha.biswas@ttu.edu
- Office hours: TWF 10:30 am–11:30 am or by appointment

COURSE DESCRIPTION


Prerequisites: (at least a) C or higher in MATH 2450, or a departmental consent.

Expected learning outcomes: MATH 3350 covers topics in ordinary differential equations, such as: (i) first-order differential equations, (ii) modeling with first-order differential equations, (iii) higher-order differential equations, (iv) modeling with higher-order differential equations, (v) Laplace transform, (vi) series Solution of Linear Equations.

Students will study topics of differential equations, their solutions, and applications to physical sciences and engineering. In particular, students will learn to: (i) recognize a differential equation and its solution, (ii) compute solutions of first-order and higher-order differential equations, (iii) use Laplace transforms, (iv) use the fundamental properties of power series to solve linear differential equations.

COURSE ORGANIZATION

Course Outline: (i) Chapter 1 (1.1 and 1.2) Introduction - 2 days, (ii) Chapter 2 (2.1-2.8) First-order differential equations - 9 days, (iii) Chapter 3 (3.1-3.6 & 3.8) higher-order differential equations - 8 days, (iv) Chapter 4 (4.1-4.5) Laplace Transform - 7 days, (v) Chapter 5 (5.1-5.3) Series Solutions of Linear Equations - 2 days.

Methods of Assessment of Expected Learning Outcomes: There will be homework, three in-class exams, and a comprehensive final exam.

Homework: Homework will be assigned every Friday through WeBWorK. Students will get two weeks time to finish each. The WeBWork URL for this course is: http://webwork.math.ttu.edu/webwork2/spr15abiswasm3350s012 Use your eRaider ID as username and R-number (including the R) as password in order to login to WeBWorK. For detailed instructions visit: http://www.math.ttu.edu/~gilliam/ttu/math_online/intro_2_webwork.pdf and http://www.math.ttu.edu/~gilliam/ttu/math_online/Enter_Answers_WeBWorK.pdf

Grading policy: On in-class exams and final, partial credit for correct steps will be awarded even if the final answer is wrong. Full credit will be given only if the final answer and all intermediate steps are correct. A correct final answer per se does not guarantee any credit.

Deadlines and make ups: In-class exams cannot be made up; the final exam serves as make-up for exams that were missed for legal and documented reasons. Dead-lines for the homework are fixed.

Final grade: There will be NO extra credit assignments in this course. Homework and exams are counted towards the final grade with weights as follows: Homework 15%, in-class exams 60% (20% each), and final exam 25%.

Grading scale: A: 90-100%, B: 80-89%, C: 70-79%, D: 60-69%, F: below 60%.
Important Dates:

- Martin Luther King Jr. Day holiday: Monday, January 19
- Last day for student-initiated drop on MyTech without penalty: Friday, January 30
- Exam 1: Monday, February 9
- Exam 2: Monday, March 9
- Spring vacation: Saturday, March 14 – Sunday, March 22
- Last day for student-initiated drop on MyTech with penalty: Wednesday, March 25
- Exam 3: Monday, April 13
- Final Exam: Friday, May 8, 1:30 p.m. – 4:00 p.m.

GENERAL POLICIES

Texas Tech Operating Policies and Procedures: The following three items are brief excerpts. The complete policies are available at [http://www.depts.ttu.edu/opmanual](http://www.depts.ttu.edu/opmanual).

**Academic Honesty (OP 34.12)**  It is the aim of the faculty of Texas Tech University to foster a spirit of complete honesty and high standard of integrity. The attempt of students to present as their own any work not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offenders liable to serious consequences, possibly suspension.

**ADA Accommodation (OP 34.22)**  Any student who because of a disability may require special arrangements in order to meet course requirements should contact the instructor as soon as possible to make any necessary accommodations. Student should present appropriate verification from AccessTECH. For additional information, please contact Student Disability Services in West Hall or call 806-742-2405.

**Absence for Observance of Observation of Religious Holiday (OP 34.19)**  A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. A student who is excused may not be penalized for the absence; however, the instructor may respond appropriately if the student fails to complete the assignment satisfactorily.

**Class Attendance Policy:** Students with less than 4 absences will gain 3 points and students with more than 3 absences will lose 3 points towards their final scores for the course. Absences due to observation of religious holidays, officially approved trips and illness or death of close family will be handled separately in accordance with the TTU Operating Policies (OP codes) and the TTU Catalog.

**Disclaimer:** This syllabus outlines the general procedures of operation and guidelines specific to MATH 3350-012: Higher Math for Engineers & Scientists I – Spring 2015. The instructor reserves the right to make amendments to the syllabus for the benefit of the students in accordance with the rules and regulations of the Texas Tech University and the Department of Mathematics and Statistics.