Course Syllabus

| Course Information | |
|---------------------------|---------------------------------|
| Course Number/Section | Math 6315/501 |
| Course Title | Ordinary Differential Equations |
| Term | Fall 2016 |
| Days & Times | M&W 5:30-6:45 pm, CB3 1.308 |
| | - |

Professor Contact Information

| Professor | M.A. Hooshyar |
|-----------------|------------------------------------|
| Office Phone | 2171 |
| Email Address | ali@utdallas.edu |
| Office Location | FO 2.610 D |
| Office Hours | M&W 2:45-3:45 pm or by appointment |

Course Pre-requisites, Co-requisites, and/or Other Restrictions Math 5301-5302, Math 2420, Math 2418 or equivalent.

Course Description

- 1. Existence and Uniqueness of Solutions of Initial value ODE problems
- 2. Linear Differential Equations
- 3. Self-Adjoint ODE and Eigenvalue Problems on Finite Intervals
- 4. Oscillation and Comparison Theorems for 2nd Order Equations

Required Textbooks and Materials

"Ordinary Differential Equations," By: Richard K. Miller and Anthony N. Michel

Student Learning Objectives/Outcomes

- 1. Students will be able to articulate essential properties and theorems covered in the ODE course.
- 2. Students will be able to apply their knowledge of ODE to analyze problems arising in applications in mathematics, physics, and engineering,
- 3. Students will be able to perform quantitative and qualitative analysis of problems using the developed ODE methods.

Assignments & Academic Calendar

Exam Dates Exam 1 – October 10, 5:30-6:45 pm in class Exam 2 – November 16, take home Final Exam – Final Exam – Dec 14, 5:00-7:45 pm in CB3 1.308

Grading Policy

HW = 16%, Exam 1= Exam 2=Final= 28%

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please go to <u>http://go.utdallas.edu/syllabus-policies</u> for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.