# Ordinary Differential Equations

August 28, 2015

**Math 3425, Fall 2015**

**Course Description**

Elementary theory and applications of first order differential equations; introduction to numerical techniques of solving differential equations; solutions of nth order linear differential equations with constant coefficients.

**Basic Details:**

- **Instructor:** Theron J Hitchman
- **Course Meetings:** MWF 9-10am, WRT 105
- **Texts:** none
- **Office Hours:** Weekdays, 2-3pm, Wright Hall 327
- **web page url:** theronhitchman.github.io/ordinary-differential-equations

**Learning Objectives**

Students will learn to

1. use numerical methods to approximation solutions to differential equations.

2. use a variety of standard techniques to solve equations analytically, including the theory of linear systems of equations with constant coefficients.

3. use geometric models for thinking of several different kinds.

4. communicate clearly about mathematics using precision and concision.

5. Ask reasonable questions about where to direct further learning.

**Assessment:**

Course grades will be based on regular classroom participation, two midterm examinations and a final project and paper.

**Student Academic Accommodations**

Please address any special needs or special accommodations with me at the beginning of the semester or as soon as you become aware of your needs. Those seeking accommodations based on disabilities should obtain a Student Academic Accommodation Request (SAAR) form from Student Disability Services (SDS) (phone 319-273-2677, for deaf or hard of hearing, use Relay 711). SDS is located on the top floor of the Student Health Center, Room 103.