



## SYRACUSE UNIVERSITY

### **MAT 414**

#### **Introduction to Ordinary Differential Equations**

**2019-2020**

**(3 credits)**

*Faculty: Dan Zacharia, Ph.D., Professor, Department of Mathematics*

*Administrative Contact: Project Advance Office at 315-443-2404*

**MAT 414** is a first course in the study of differential equations. Topics covered include: the analytic and qualitative aspects of first-order differential equations (linear and nonlinear), second order linear equations, Laplace transforms, and systems of first-order linear equations.

#### Prerequisites

To register for this course, students must provide documents confirming completion of the following prerequisites:

1. Passing Syracuse University **MAT 295** and **296** with a grade of C- or better; or
2. Earning a score of 4 or better on the AP BC calculus examination; or
3. Earning a qualifying score on University examinations

and

1. Passing **MAT 397** with a grade of C or better

Students are expected to be able to:

- Take partial derivatives;
- Set up and evaluate integrals;
- Do integration by parts; and
- Work with elementary linear algebra

For information, please contact the course administrator at Project Advance at 315-443-2404