

# Math 3433-301 Differential Equations Summer Session I 2019

## Contact Information:

Instructor: Dr. Guy Bernard

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Office Hours: Monday-Tuesday 9:00-10:00am and 12:30pm-1:00pm,  
Wednesday-Thursday 9:30-10:00am, 12:30pm-1:00pm, or by  
appointment.

## Class Details:

Lectures: MTWR 10:10am-12:10pm in Bolin Hall 109

Text: A First Course in Differential Equations with Modeling  
Applications, by Dennis G. Zill, 10th edition.

Class Notes: posted on the MSU Portal.

Homework Solutions: posted on the MSU Portal after being handed in.

Calculator: Any graphing calculator.

**Course Description:** The goal of this course is to serve as an introduction to the subject of Ordinary Differential Equations. Mainly first and second-order differential equations will be considered. Methods of solving linear and non-linear D.E. will be covered. The spring-mass system will be seen with and without damping and forcing. Growth and decay as well as logistic models will be covered as applications. Also, linear systems in two dimensions will be studied briefly.

**Course Outline:** The following chapters will be seen

- Chapter 1 Introduction to Differential Equations (D.E.)
- Chapter 2 First-Order D.E. (except 2.6)
- Chapter 3 Modeling with First-Order D.E. (except 4.5, 4.8, 4.10)
- Chapter 4 Higher-Order D.E.
- Chapter 5 Modeling with Higher-Order D.E. (except 5.3).

**Homework, Tests, and Final Exam:**

- There will be 12 homework assignments during the semester.
- The homework assignments will cover the entire course material.
- Late assignments will not be accepted.
- There will be 3 tests during the semester.
- The final exam will be comprehensive and compulsory.

- All tests and the final exam will be closed book exams.
- Calculators will be permitted during all exams.
- Make-up tests will be granted only in exceptional situations and only when the student has made the request (for a make-up test) several days before the date of the class-scheduled test.

### Test Dates:

- Test No.1 Thursday June 13, 2019 (subject to change)
- Test No.2 Tuesday June 25, 2019 (subject to change)
- Test No.3 Wednesday July 3, 2019 (subject to change)
- Final Exam Friday July 5, 2019 10:10am-12:10pm

### Grading:

The course grade for each student will be the better of the two following two evaluations:

#### Evaluation 1

- Homework 5%
- Test No.1 20%
- Test No.2 20%
- Test No.3 20%
- Final Exam 35%

#### Evaluation 2

- Homework 5%
- Best Test 20%
- 2<sup>nd</sup> Best Test 20%
- Worst Test 0%
- Final Exam 55%

### Letter Grade:

In this course, the course letter grades will correspond to the following course grades:

- A 85% and above
- B 75% to 84%
- C 65% to 74%
- D 55% to 64%
- F below 55%

### **Important Date:**

Last date to withdraw from the course with the grade of W:  
4:00pm Thursday June 20, 2019.

### **Attendance Policy:**

Students must attend all class lectures. Students who miss more than five lectures will be withdrawn from the course (with the grade of WF if before June 20 and with a grade of F after this date). There are two 55 minutes lectures per day.

### **Disabilities Statement:**

Students who need special accommodations should inform the instructor and contact the Disability Support Services Office: room 168 Clark Student Center Phone: (940) 397-4140.

### **Student Handbook:**

Students should refer to the current MSU Student Handbook and Activities Calendar for university policies on academic dishonesty, class attendance, student rights and activities. Please refer to the website [Student Handbook 2017-18](#)

### **Campus Carry Statement:**

Senate Bill 11 passed by the 84th Texas Legislature allows licensed handgun holders to carry concealed handguns on campus, effective August 1, 2016. Areas excluded from concealed carry are appropriately marked, in accordance with state law. For more information regarding campus carry, please refer to the University's webpage at [Campus Carry Rules and Policies](#)