

Virginia Commonwealth University  
Department of Mathematics and Applied Mathematics  
**Differential Equations**  
Math 301 - Section 003  
Spring 2019  
Course Syllabus  
**Meeting Times:** TR 11:00 - 12:15 pm  
**Location:** Oliver Edu.  
Room 2122

**Contact Information**

**Instructor:** Brent Cody

**Email:** [bmccody@vcu.edu](mailto:bmccody@vcu.edu)

**Office:** Harris Hall, Room 4110

**Office Hours:** T 3:30-4:30 pm, W 1:00-2:00 pm or by appointment

**Textbook and Calculator**

**Required Textbook:** A First Course in Differential Equations with Modeling Applications, 10th Edition, by Dennis G. Zill (ISBN: 978-1111827052)

**Calculator:** You will be allowed to use a graphing calculator (such as a TI-83, 84, or 86) on some quiz and test problems.

**Topics**

- (1) **First-Order Equations** separable equations, integrating factors, exact equations, numerical methods
- (2) **Higher-Order Equations** - Reduction of order, constant coefficients, undetermined coefficients, variation of parameters
- (3) **Applications** - Exponential growth/decay, heat and cooling equations, circuits, spring-mass systems
- (4) **The Laplace Transform** - basic properties, applications to solving DEs
- (5) **Systems of Linear Differential Equations**
- (6) **Numerical Methods**

**Grading**

The assignments for the course are broken up into four categories.

(1) **Homework:** Weekly homework will be assigned but **not collected**. However, problems for the quizzes will be similar to the homework. If you have any questions about any of the homework problems please ask me before or after class, or during my office hours. To do well in the course you will need to work all of the assigned problems.

(2) **Quizzes:** Quizzes will be closed-book and closed-notes. Each week there will be a short quiz covering the material of the previous week. The quiz problems will be very similar to the homework assignments for those sections.

(3) **Tests:** There will be two tests before the final exam period begins.

(4) **Participation:** Participation points will be given for your level of engagement in the course. This doesn't mean that you need to raise your hand to ask/answer questions during class, but you should display an interest in the course by coming to class on time or attending office hours. You may lose participation points for using a cell phone during class, or regularly missing class, being late/leaving early.

(5) **Final Exam:** The final exam will be cumulative and will take place on

Tuesday, May 7, 8:00 am – 10:50 am in Oliver Edu. Room 2122.
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The usual 10-point grading scale will be used to average course grades (90–100 is an A, 80–89 is a B, etc.). Here is a chart indicating the weights of assignments.

Quizzes	25%
Tests	40% (20% each)
Participation	5%
Final Exam	30%
Total	100%

### Grading Policies:

- I will drop two of your lowest quiz grades.
- **Make-up policy:** I do not give make-up quizzes, rather I drop your lowest quiz grades (as outlined above). If you miss a test you will need to contact me to work out a solution.

### Course Policies

- Missing more than 5 classes may result in an automatic F.
- No cheating on quizzes, tests or exams will be tolerated. If you are caught cheating on an assignment you will receive a 0 on that assignment.

**All cellphones and electronic devices must be put away during quizzes, tests and exams. The use of a cellphone during quizzes, tests and exams will be considered cheating unless you ask me first.**

### Important Dates

Friday, February 22      Last day to withdraw from a course with a mark of “W.”

For other important dates visit: [http://academiccalendars.vcu.edu/ac\\_fullViewAll.asp?term=Spring+2016](http://academiccalendars.vcu.edu/ac_fullViewAll.asp?term=Spring+2016).

## UNIVERSITY WIDE POLICIES

Students should visit <http://go.vcu.edu/syllabus> and review all syllabus statement information. The full university syllabus statement includes information on safety, registration, the VCU Honor Code, student conduct, withdrawal and more.

### Students with Disability

Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, as amended, require that VCU provide “academic adjustments” or “reasonable accommodations” to any student who has a physical or mental impairment that substantially limits a major life activity. To receive accommodations, students must register with the Office of Student Accessibility and Educational Opportunity on the Monroe Park Campus (828-2253) or the Division for Academic Success on the MCV campus (828-9782). Please also visit the Student Accessibility and Educational Opportunity website via <https://saeo.vcu.edu/> and/or the Division for Academic Success website via <https://das.vcu.edu/> for additional information.

Once students have completed the registration process, they should schedule a meeting with their instructor (s) and provide their instructor (s) with an official accommodation letter. Students should follow this procedure for all courses in the academic semester.