

Differential Equations

First-order and higher-order differential equations, systems of linear differential equations, LaPlace transforms, numerical methods, and qualitative analysis of ordinary differential equations will be discussed.

Instructor: Julianne Connell Sachs

Phone: 527-3662

Website: <http://staff.wvcc.edu/julianne.sachs>

Office: 15B

email: julianne.sachs@wvcc.edu

Office Hours: Monday, Tuesday, Wednesday 9:30-10:20 a.m. and Thursday, Friday 8:30-9:20 a.m. In addition to my scheduled office hour, you may stop by at any time or make an appointment to meet with me. You are responsible for all course material; if you do not understand a concept or problem please don't hesitate to ask a classmate, tutor, or me.

Text: *Differential Equations* by Blanchard, Devaney and Hall, Third Edition. Students are expected to read and study the sections of the book that we cover. There is a student solutions manual that is optional.

Technology: A graphing calculator is required for the course. In-class instruction will be on the TI-89 and *Mathematica*. Assignments and tests may require the use of *Mathematica*. This mathematical software is installed on the computers in our classroom and in the Math Lab. We have recently purchased a site license that will allow students the use of *Mathematica* at home. I require that you use your WVCC student email account to email me all of the *Mathematica* assignments. Although we will be using the computers in the classroom for Math 238, other computer activities as well as cell phone use are prohibited during class.

Graph Paper: Graph paper is required and available at the bookstore.

Attendance: Daily, punctual attendance is expected. If you should miss a class, you are responsible for all announcements made concerning the course, for the material discussed in class, and for the homework assignment due the following day. The homework assigned will be posted on the website.

Homework: Homework will be assigned and collected regularly. Each assignment will be worth three points, based on neatness and completion. You must show all work, including explanation in words where appropriate. Homework turned in one day late will be accepted for a possible two points. Homework will not be accepted more than one day late, however, your lowest three homework scores will be dropped at the end of the quarter. Homework will be worth 100 points of your final grade. Plan to spend a solid two hours every day reading, studying, and working through problems. I encourage you to work in groups and to obtain help from the Math Lab in Room 288, remembering that it is essential to understand the course material and to be able to solve problems independently.

Exams: You must show all work on exams, including explanation in words where appropriate. There may be a take-home portion requiring the use of *Mathematica* on each exam. If you must miss an exam for a WWCC-related function, please contact me at least one week in advance in order to make proper arrangements. In the extremely rare case that you should miss an exam for other reasons, unless physically impossible, you must contact me before the exam in order to make arrangements to take the exam at another time. Please note that cell phones, headphones, and sharing calculators are prohibited during exams.

Miscellaneous: Quizzes, projects, or other assignments may be given during the quarter.

Final Exam: The final exam will be given Wednesday, June 11 at 11:30. Taking the final exam on a day other than that scheduled must be arranged in writing through the Vice President of Instruction's office.

Evaluation: Your grade will be calculated by dividing the points you have earned by the points possible. Your grade will be determined from the following scale where x is the % of possible points you earned.

A	$x \geq 93$	B-	$80 \leq x < 83$	D+	$67 \leq x < 70$
A-	$90 \leq x < 93$	C+	$77 \leq x < 80$	D	$60 \leq x < 67$
B+	$87 \leq x < 90$	C	$73 \leq x < 77$	F	$x < 60$
B	$83 \leq x < 87$	C-	$70 \leq x < 73$		

If at the end of the quarter, your percent earned is very close to a grade minimum, it is possible your grade will be rounded up. This will be based on your exam scores and improvement. For example, an 89.9% could be rounded up to an A-. Your grade will not be rounded down.

Notes: Academic dishonesty is not tolerated and will result in a 0 grade. Do not hesitate to ask questions in class or in my office. It is essential that you consistently put forth the effort necessary to succeed, beginning today.

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both Claudia Angus, the Disabilities Coordinator in the Student Development Center, and me as early as possible in the quarter.