

**COLLIN COUNTY COMMUNITY COLLEGE  
COURSE SYLLABUS**

**COURSE NUMBER:** MATH 2320

**COURSE TITLE:** Differential Equations

**CREDIT HRS:** 3      **LECTURE HRS:** 3

**PREREQUISITE:** Math 2414 or 2419

**COREQUISITE:** None

**COURSE DESCRIPTION:**

First order differential equations, including exact, separable, linear, and substitution methods. Higher order linear differential equations, power series methods, Laplace transforms, systems of first order linear differential equations, and Euler numerical method. Graphing calculator required.

**MEASURABLE STUDENT LEARNING OUTCOMES:**

Upon completion of this course the students should be able to do the following:

1. Solve first order differential equations
2. Solve higher order differential equations
3. Solve initial value problems using Laplace Transforms
4. Solve application problems involving differential equations
5. Approximate solutions to differential equations using numerical methods
6. Solve systems of differential equations using eigenvalues and eigenvectors
7. Use power series to solve first and second order differential equations

**COURSE REQUIREMENTS:**

Completion of required exams and assignments

**COLLEGE REPEAT POLICY:**

A student may repeat this course only once after receiving a grade, including “W.”

**ATTENDANCE POLICY:**

May vary by instructor. See the current *Collin Registration Guide* for the last day to withdraw.

**RELIGIOUS HOLY DAYS:**

Please refer to the current *Collin Student Handbook*.

**ADA STATEMENT:**

It is the policy of Collin County Community College to provide reasonable and appropriate accommodations for individuals with documented disabilities. This College will adhere to all applicable Federal and State laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student’s responsibility to contact the ACCESS Office (G-200) or 972.881.5898, (TDD- 972.881.5950) in a timely manner if he/she desires to arrange for accommodations.

**ACADEMIC ETHICS:**

The college may initiate disciplinary proceedings against a student accused of scholastic dishonesty. Scholastic dishonesty includes, but is not limited to, statements, acts, or omissions related to applications for enrollment or the award of a degree, and/or the submission of material as one’s own work that is not one’s own. Scholastic dishonesty may involve one or more of the following acts: cheating, plagiarism, collusion, and/or falsifying academic records.

**CHEATING:**

Is willful giving or receiving of information in an unauthorized manner during an examination, illicitly obtaining examination questions in advance, using someone else’s work for assignments as if it were one’s own, copying computer disks or files, and any other dishonest means of attempting to fulfill the requirements of a course.

**PLAGIARISM:**

Is the use of an author’s words or ideas as if they were one’s own without giving credit to the source, including, but not limited to, failure to acknowledge a direct quotation. Contact the Dean of Students at 972.881.5771, for the student disciplinary process and procedures or consult the CCCCD Student Handbook.

**COLLUSION:**

Is intentionally aiding or attempting to aid another in an act of scholastic dishonesty, including but not limited to, providing a paper or project to another student; providing an inappropriate level of assistance; communicating answers to a classmate during an examination; removing tests or answers from a test site, and allowing a classmate to copy answers.