

MATH 2310 Section 1
Applied Differential Equations
Fall 2015

Instructor: Dr. Nickodemus
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Lecture: F 11:00–11:50

Office Hours: TR 9:00–9:50
WF 11:00–11:50
To Be Determined

Textbook: None

Course Description: Solution of first order differential equations, differential operators, LaPlace transforms, systems, power series solutions, and applications.

Prerequisites: A C or better in MATH 2210.

Grade: The student's grade in the course will be determined by three presentations. Each presentation will be graded using the student's displayed skill level the relevant course outcomes. Each presentation will be weighted equally. It is the responsibility of the student to ensure that each of the seven course outcomes are displayed in at least one presentation.

Email: The student's assigned Casper College email account is the *only* official method of communication in this class. All official communications with me will occur solely through the student's assigned Casper College email account. Email is also the only official method of communication at Casper College. Casper College faculty and staff will employ the student's assigned Casper College email account as the primary method of communication. Students are responsible to check their account regularly. They may contain information such as library fines notification, tuition bills, official correspondence from an instructor, etc.

Getting Help: If you feel that you are getting behind in the class, please let me know. Most issues can be cleared up very quickly if they are addressed early. If you cannot make any of my regular office hours listed above, we can schedule an individual appointment.

College Sponsored Activity: If you will be unable to earn your weekly points for a week because of a college sponsored activity, and you would like that week excused, you need to take the following actions.

1. Have your coach send me a typed letter on Casper College letter head with a list of all the dates that you will be gone for the entire semester by September 11.
2. Prior to your trip, send me an email telling me when you will be gone. This email should also contain an explanation of how and when you will make up the work that you will be missing. I will then email you back with a deadline for when you must have the missed work made up.

Dropping the Course: The last day to drop the course is November 12. Students will not be allowed to drop after this date.

Outcomes: The desired outcomes of this course include, but are not limited to

1. correctly use the symbols, notations, and operations used in a differential equations context;
2. to discuss differential equations in a qualitative manner, utilizing slope fields, solution graphs, phase lines for autonomous equations, and phase portraits for systems of linear equations;
3. to solve standard forms of first order ordinary differential equations, such as separable, linear, exact, decoupled or partially decoupled linear systems;
4. to solve standard forms of second order differential equations using methods such as eigenvalues and eigenvectors and Laplace transforms;
5. to apply common numerical methods to equations or systems of equations where explicit solutions do not exist or are hard to derive;
6. to use appropriate technology to obtain graphs, fields, and numerical solutions to various kinds of differential equations; and
7. to find solutions to various real-life applications, such as population growth, unforced and forced harmonic motion, predator-prey, cooperative and competitive systems.

Student Rights and Responsibilities: Please refer to the Casper College Student Conduct and Judicial Code for information concerning your rights and responsibilities as a Casper College Student.

Chain of Command: If you have any problems with this class, you should first contact the instructor to attempt to solve the problem. If you are not satisfied with the solution offered by the instructor, you should then take the matter through the appropriate chain of command starting with the Department Head/Program Director, the Dean, and lastly the Vice President for Academic Affairs.

Academic Dishonesty - Cheating & Plagiarism: Casper College demands intellectual honesty. Proven plagiarism or any form of dishonesty associated with the academic process can result in the offender failing the course in which the offense was committed or expulsion from school. See the Casper College Student Code of Conduct.

Plagiarism: Plagiarism is defined as the use of another's ideas or words without appropriate acknowledgment. Examples of plagiarism include: failing to use quotation marks when directly quoting from a source; failing to document distinctive ideas from a source; fabricating or inventing sources; and copying information from computer-based sources, e.g., the Internet.

Unauthorized Possession or Disposition of Academic Materials: Unauthorized possession or disposition of academic materials may include: selling or purchasing examinations, papers, reports or other academic work; taking another student's academic work without permission; possessing examinations, papers, reports, or other assignments not released by an instructor; and/or submitting the same paper for multiple classes without advance instructor authorization and approval.

ADA Accommodations Policy: It is the policy of Casper College to provide appropriate accommodations to any student with a documented disability. If you have a need for accommodation in this course, please make an appointment with our Accommodative Services Counselor at 268-2557.