

INSTRUCTOR: Zeph Smith
OFFICE: TB 516B
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CONSULTATION: T,Th 2:00-3:50 pm
INSTRUCTOR WEB SITE: www.mathslcc.weebly.com

TEXT: Differential Equations and Linear Algebra, 2nd Edition, by Jerry Farlow, James E. Hall, Jean Marie McDill, Beverly H. West; Prentice Hall publisher.

PREREQUISITES: Within the last year, you must have completed a second semester or third quarter Calculus course with a grade of C or better. Concurrent enrollment in Math 2210 and Math 2250 requires departmental approval.

COURSE DESCRIPTION: To develop foundations for a theoretical understanding and working knowledge of ordinary differential equations and linear algebra as they relate to modeling problems in science and engineering.

COURSE OBJECTIVES: We develop standard classical techniques of solving ordinary differential equations including first order equations, second and higher order linear equations, systems, and Laplace transforms. We also examine the qualitative nature of solutions and study numerical methods to obtain solutions. Applications include population models, motion and resonance, equilibrium solutions, and electric circuits. The linear algebra portion includes the study of systems which may have none, one, or infinitely many solutions; vectors, determinants, matrices, and eigenvalues as they relate to solving systems of linear equations and systems of differential equations.

CLASS SCHEDULE: Attached is a tentative schedule for the course. This schedule will be followed as closely as possible; however, some modifications may be necessary during the semester. Your instructor will announce all modifications in class.

HOMEWORK: Attached is a listing of exercises for home study. These exercises are considered the minimum required for a sufficient understanding of the material. Students are encouraged to work more exercises than those assigned. **Homework will be collected WEEKLY. Late homework is worth half credit,** unless you receive instructor approval. Homework problems are similar to the problems which will appear on course examinations and the final exam. Regular practice is essential for success in mathematics. You should be prepared to spend at least two hours studying outside of class for each hour of class time.

EXAMS: There will be four exams and a final during the semester. **No exam scores will be dropped.** Exams will be taken during a scheduled class period. **NO MAKE-UP EXAMS** will be given without permission from the instructor **before** the missed exam. In case of a last minute emergency, every effort should be made to contact the instructor as soon as possible. Full credit will be awarded on exam problems only if your work can be readily followed and solutions are precise and clearly indicated.

EXTRA CREDIT: After each exam, there will be a chance to receive back half of the points you missed on the exam. The method of credit will be discussed in class by your instructor. Other extra credit will be discussed as the need arises.

FINAL EXAMINATION: Wednesday December 16, 9:10 - 11:10 am

It is NOT an option for the students to not take this exam. Students should make arrangements with employers now to be free at the appointed time. The final will be a comprehensive examination emphasizing topics listed under the course objectives. It is an SLCC Math Department policy that students attaining a score of less than **60% on the final** shall receive a grade no higher than "D" for the course.

PERMANENT FOLDER: To minimize the possibility of human or computer error, it is recommended that students keep all homework, labs, and exams in a folder until they have received a grade for the course.

GRADING: Grades will be awarded as follows:

Assignment	Percent of final grade
Tests	45%
Homework	25%
Lab	5%
Final Exam	25%

A	100-93%	C	76-73%
A-	92-90%	C-	72-70%
B+	89-87%	D+	69-67%
B	86-83%	D	66-63%
B-	82-80%	D-	62-60%
C+	79-77%	E	Below 60%

WITHDRAWAL POLICY: Students may drop from the course through September 16th, 2015. Students may withdraw from the course through October 30th, 2015. No withdrawals will be approved after that date.

CALCULATOR POLICY: Graphing calculators and computer algebra systems are useful tools for demonstrating concepts and facilitating problem solving. They are not a substitute for learning the fundamental concepts of this course. Some homework assignments and projects may require the use of a graphing calculator, but it is department policy that no more than basic scientific calculators be allowed on quizzes, exams or finals.

CLASSROOM DEPARTMENT: All students at SLCC must comply with the Student Code of Conduct: http://www.slcc.edu/policies/docs/Student_Code_of_Conduct.pdf. In particular, note the Academic Standards on pages 41 and 42 with regards to cheating, misrepresentation, out-of-class work, and plagiarism. In compliance with this document, a student who is academically dishonest will receive an E for this course. Also note the Disorderly Conduct sections on pages 18 and 19.

ATTENDANCE: **Class attendance is STRONGLY advised.** Regular attendance is essential to achieve satisfactory results. It is the student's responsibility to be aware of all material covered, tests dates, and assignment due dates. Your instructor will outline specific attendance policies.

CHEATING POLICY: Students found cheating on tests will receive an "E" for the entire course. **There will be no tolerance for cheating.**

ACCOMMODATIONS: Students with medical, psychological, learning or other disabilities desiring accommodations or services under ADA, should contact the Disability Resource Center (DRC). The DRC determines eligibility for and authorizes the provision of these accommodations and services for the college. Please contact the DRC at the Student Center, Suite 244, Redwood Campus, 4600 So. Redwood Rd, 84123. Phone: (801) 957-4659, TTY: 957-4646, Fax: 957- 4947 or by drc@slcc.edu.

EXTRA HELP: Please use your instructor's office hours to ask any questions - you can either phone or visit in person. Many students find that forming study groups with other students is a very effective way for them to master mathematics. If you need extra help, free tutoring is available in the Learning Centers (phone 801-957-4172) at Redwood TB-213 and LIB 044, South N308 (phone 801-957-3261), and Jordan HTB 102 (phone 801-957-2852). A list of private tutors who may be hired is available in the Learning Centers. The internet is full of resources that could be used for this class. You are encouraged to explore. Individualized and small group tutoring is available (and free) to students through Focused Tutoring. Students need to apply to be matched with a tutor for the semester. Tutoring can be arranged at other campuses depending on tutor and student schedules. Contact Jennifer Fasy for more information (<mailto:Jennifer.fasy@slcc.edu>; 801-957-4138) or visit: <http://www.slcc.edu/focusedtutoring/index.aspx>.

Academic Advising

Academic advising is available to assist with the following:

- Creating an educational plan and/or to set up a class schedule
- Identify the courses needed toward graduation
- Obtain transfer information
- Review academic progress

For more information, visit: <http://www.slcc.edu/academicadvising/index.aspx>.

For specific questions regarding math courses and programs in the School of Science, Math and Engineering contact:

Academic Advisor: Devan Church

Phone: 801-957-4858

E-mail: <mailto:devan.church@slcc.edu>

STUDENT LEARNING OUTCOMES: SLCC is committed to fostering and assessing the following student learning outcomes in its programs and courses:

- * Acquiring substantive knowledge in the field of their choice
- * Developing quantitative literacies
- * Developing the knowledge and skills to be civically engaged
- * Thinking critically
- * Communicating effectively

TITLE IX INFORMATION:

20 U.S.C.A. Section 1681 (a): TITLE IX

"No person in the United States shall, on the basis of sex, be excluded from participation in, be denied benefit of, or be subjected to discrimination under any education program or activity receiving federal funds."

Examples of violations (but not limited to):

- ▶ Sexual advances, requests for sexual favors and sexually motivated physical conduct

- ▶ Overt or subtle pressure for sexual activity
- ▶ Sexually offensive verbalization including remarks, “teasing”, slurs, and innuendo
- ▶ Repeated inappropriate jokes or comments about sex or gender specific traits
- ▶ Conduct that is demeaning or derisive and occurs substantially because of one’s gender
- ▶ Sexual assault
- ▶ Sexual Violence
- ▶ Gender based disparate treatment

Violations can occur in any college environment, such as (but not limited to):

- | | |
|------------------|--------------------|
| ▶ Field Trips | ▶ Classrooms |
| ▶ Student Clubs | ▶ Athletics |
| ▶ Transportation | ▶ On Campus Events |

If you have questions or concerns regarding your rights or responsibilities, or if you would like to file a Title IX complaint please contact:

Students-

Dr. Marlin Clark, Dean of Students, 801-957-4776, STC 276 A (Redwood)

Employees or Community members-

Ken Stonebrook, Title IX & Discrimination Manager, 801-957-5027, AAB 211G (Redwood)

Online Reporting Form-

<http://www.slcc.edu/eo/title-ix/complaint.aspx>

Salt Lake Community College has a strong prohibition against RETALIATION! The college does not tolerate acts of retaliation against anyone for engaging in filing a complaint or participating in an investigation.

Finally, read and be aware of the regulations set forth in the FALL 2015 Schedule and the SLCC college catalog. Please see your instructor ASAP about any problems that are affecting your work in this class.