

MATH 1210–01
Calculus I
Spring 2012
9:00–9:50 a.m., MTWRF, ED 215

Instructor Dr. Derek W. Hein
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Office Hours 2:00–2:50 p.m. MTWRF and by appointment

Description Functions, limits and continuity; the derivative, differentiation techniques, and applications; graphing applications including extrema and concavity; elementary antiderivative/integration skills; the definite integral and its applications. Coverage includes applying the ideas and techniques of calculus to algebraic, trigonometric, exponential, and logarithmic functions.

Prerequisite A grade of C or better in College Algebra and Trigonometry. This should include Math 1050 and 1060 or a pre-college background of at least two and one-half years of algebra, one year of geometry and one-half year of trigonometry.

Textbook *Single Variable Calculus: Early Transcendentals*, 7th edition, Stewart, ©2012, Brooks/Cole, ISBN 978–0–538–49867–8

Calculator A graphing calculator is *required*. The TI–89 (or higher) is *strongly recommended*.

Course Fee \$4 (Program Fee–COSE)

Objective Upon completion of this course, the student will learn the basics of calculus, including functions, limits, continuity, the derivative, and the integral (with applications).

Assessment Course assessment will be monitored by frequent [homework](#), weekly quizzes, four exams and a Final Exam. *Quiz dates:* Jan. 12, 19; Feb. 2, 9, 23; Mar. 1, 22, 29; Apr. 12, 19. *Exam dates:* Jan. 27; Feb. 17; Mar. 9, Apr. 6. *Final date:* Wednesday, May 2, 9:00–10:50 a.m. in our classroom. *The Final Exam will be **comprehensive**.*

Homework will be worth a total of 100 points. Quizzes (given out at the end of class; collected at the beginning of the next class) will be worth a total of 100 points. Examinations are worth 100 points each. The **comprehensive** Final Exam will be worth 150 points. Thus, there will be 750 points available in the course.

| | | | | | |
|----|-----|----------------|----|------|----------------|
| A | 93% | 697+ points | C | 73% | 547–576 points |
| A– | 90% | 675–696 points | C– | 70% | 525–546 points |
| B+ | 87% | 652–674 points | D+ | 67% | 502–524 points |
| B | 83% | 622–651 points | D | 63% | 472–501 points |
| B– | 80% | 600–622 points | D– | 60% | 450–471 points |
| C+ | 77% | 577–599 points | F | <60% | <450 points |

Late Work Late work will be assessed a 20% per day penalty unless it is *preapproved* by me AND *documented* by someone official (doctor, etc.) If you are not in class when an assignment is distributed or collected, and you don't have a valid excuse, you will not get credit for that assignment. There will be very little extra credit in this course (but there may be other incentives at the instructor's discretion).

| Outline | Day | Section | Day | Section |
|----------------|--------|-----------------------|-----------|---------------------|
| | Jan 9 | intro, 1.1 I | Mar 5 | 3.11 I |
| | | 10 1.1 II, appen. D I | | 6 3.11 II |
| | | 11 appen. D II | | 7 review |
| | | 12 problems | | 8 problems |
| | | 13 1.2 | | 9 Exam 3 |
| | Jan 16 | <i>Holiday</i> | Mar 12–16 | <i>Spring Break</i> |
| | | 17 1.3 | | |
| | | 18 1.4 | Mar 19 | 4.1 |
| | | 19 problems | | 20 4.2 |
| | | 20 1.5 | | 21 4.3 |
| | | | | 22 problems |
| | Jan 23 | 1.6 I | | 23 4.4 I |
| | | 24 1.6 II | | |
| | | 25 review | Mar 26 | 4.4 II |
| | | 26 problems | | 27 4.5 |
| | | 27 Exam 1 | | 28 4.6 |
| | | | | 29 problems |
| | Jan 30 | 2.1 | | 30 4.7 |
| | | 31 2.2 I | | |
| | Feb 1 | 2.2 II | Apr 2 | 4.8 |
| | | 2 problems | | 3 4.9 |
| | | 3 2.3 I | | 4 review |
| | | | | 5 problems |
| | Feb 6 | 2.3 II, 2.4 I | | 6 Exam 4 |
| | | 7 2.4 II | | |
| | | 8 2.5 | Apr 9 | 5.1 |
| | | 9 problems | | 10 5.2 I |
| | | 10 2.6 | | 11 5.2 II |
| | | | | 12 problems |
| | Feb 13 | 2.7 | | 13 5.3 I |
| | | 14 2.8 | | |
| | | 15 review | Apr 16 | 5.3 II |
| | | 16 problems | | 17 5.4 I |
| | | 17 Exam 2 | | 18 5.4 II |
| | | | | 19 problems |
| | Feb 20 | <i>Holiday</i> | | 20 5.5 I |
| | | 21 3.1 | | |
| | | 22 3.2 | Apr 23 | 5.5 II |
| | | 23 problems | | 24 review |
| | | 24 3.3 | | 25 review |
| | | | | 26 problems |
| | Feb 27 | 3.4 | | 27 <i>Study Day</i> |
| | | 28 3.5 | | |
| | | 29 3.6 | Apr 30 | |
| | Mar 1 | problems | May 1 | |
| | | 2 3.9 | | 2 Final Exam |

Administrivia Please do not procrastinate studying mathematics!!! The material at this level takes time and effort to assimilate. “We could compare learning to ... the way a pianist prepares for a concert. A pianist cannot cram his knowledge of music and his playing skill into one week or even one month of solid practice to prepare for a concert. But he prepares himself through consistent, diligent practice, day by day over a long period of time.” (Joseph B. Wirthlin, *Finding Peace in Our Lives*, p. 75) You will not do well on the exams if you do not do well on the homework and quizzes.

I suggest that you do all of your work in a loose-leaf, 3-ring binder (or notebook) that you can bring with you to class and to office hours. Thus, you will have something to take notes in, write questions in, refer to, etc.

Please use office hours! (This is one of the big secrets of success for an undergraduate education!) You are not getting your (or your family’s) money’s worth if you do not. You are not bothering me in office hours – I get paid to answer questions and attend to students’ needs.

Daily attendance is expected, though not formally recorded. Please attend class every day — your grade will suffer drastically if you do not.

It is rude and disruptive to use cell phones during class. **PLEASE DO NOT TEXT–MESSAGE OTHERS DURING THE LECTURE!** If your phone rings during class, *leave the room* and answer it.

You may work on homework and quizzes with anyone in the class, but the exams will reflect *only your work*. Scholastic dishonesty will not be tolerated and will be prosecuted to the fullest extent. You are expected to have read and understood the current issue of the student handbook (published by Student Services) regarding student responsibilities and rights, and the intellectual property policy, for information about procedures and about what constitutes acceptable on-campus behavior.

Students with medical, psychological, learning or other disabilities desiring academic adjustments, accommodations or auxiliary aids will need to contact the Southern Utah University Coordinator of Services for Students with Disabilities (SSD), in Room 206F of the Sharwan Smith Center or phone (435) 865–8022. SSD determines eligibility for and authorizes the provision of services.

In case of emergency, the University’s Emergency Notification System (ENS) will be activated. Students are encouraged to maintain updated contact information using the link on the homepage of the *mySUU* portal. In addition, students are encouraged to familiarize themselves with the Emergency Response Protocols posted in each classroom. Detailed information about the University’s emergency management plan can be found at <http://www.suu.edu/ad/facilities/emergency-procedures.html>

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Information contained in this syllabus, other than the grading, late assignments, makeup work, and attendance policies, may be subject to change with advance notice, as deemed appropriate by the instructor.