Dixie State University

http://www.dixie.edu

Syllabus for Calculus I (4.0 credits) CRN 20358 Math 1210-01 Spring 2019

This course fulfills the General Education Mathematics requirement for students majoring in Business, Elementary Education, Health Sciences, Science, and other majors.

Instructor:Dr. McKay SullivanClassroom:SNOW 124Phone:(435) 652-7647Class time:M-Th 8-8:50AMEmail:mckay.sullivan@dixie.eduOffice:SNOW 139

Office hours: M-Th 10-11AM and by appointment

Date Range: Jan 7, 2018 - May 2, 2018

Course Objectives: All classes in mathematics at Dixie State University support the general education goal of the University. Each class will:

- 1. Employ mathematical techniques in computational problems.
- 2. Students will interpret mathematical models.
- 3. Construct quantitative, logical arguments.
- 4. Students will apply mathematical knowledge to real world problems.
- 5. Communicate in the mathematical language through the use of proper notation and terminology.
- 6. Students will explore and analyze mathematical concepts, using technology as appropriate.

Upon successful completion of this course, the students will demonstrate through testing the ability to:

- 1. Define and evaluate limits.
- 2. Define and identify continuity and differentiability.
- 3. Apply limits to graphing techniques.
- 4. Define the derivative.
- 5. Use formulas for differentiation.
- 6. Use the derivative to find tangents to curves.
- 7. Apply the derivative in problems involving extrema and related rates.
- 8. Define the definite integral.
- 9. Use L'Hospital's Rule to evaluate limits.
- 10. Perform integration by various techniques (parts, substitution, and partial fractions).
- 11. Perform numerical integration.
- 12. Approximate area under curves.

Catalog Description: Fulfills General Education Mathematics requirement. Students will gain a basic understanding of calculus, including limits and derivatives, differentiation rules, applications of differentiation and integrals. Students must have a working knowledge of college algebra and trigonometry. Required for Utah Level 2, 3, and 4 Math Endorsements, and for students majoring in Computer Science, Computer and Information Technology--Software Development Emphasis, Biology, Physical Science Composite Teaching and Pre-engineering. Successful completion fulfills prerequisite for MATH 1220, and Mathematics prerequisite for ENGR 2010 and PHYS 2210.

Prerequisite: MATH 1050 and MATH 1060 (Grade C or higher); or MATH 1080 (Grade C or higher); or ACT or equivalent placement score 26 or higher; or CPT placement score of 105 or higher within two years of enrollment of this course. FA, SP, SU.

Class Structure: This section will have daily homework assigned and turned in from the course textbook and three in-class written exams. The final will be cumulative and will be taken during the university assigned time in our usual classroom.

eTextbook: Your textbook for this class is available for free download in PDF format on our Canvas course page. You may print the text from the PDF file if desired. For those who prefer to purchase a professionally printed copy, click the "Order a print copy" link on the eBook webpage listed below. As of April 2018, the price for a hardcover printed version was \$33.50.

Calculus Volume 1 from OpenStax, ISBN 193816802X, www.openstax.org/details/calculus-volume-1

Homework: Assignments are to be completed daily and will be due two class days after they are assigned. All homework must be scanned and submitted through Canvas. Each homework file must be submitted as a single PDF file. Keep in mind that math is a skill that can only be learned and mastered by doing it yourself with lots of practice. Students in Calculus should expect to spend at least two hours outside of class studying and doing homework for every hour they spend in class. Homework will count as 25% of your final grade.

Attendance and Participation: Class attendance and participation is essential to success in calculus classes. It is your responsibility to attend class. Attendance will be recorded daily. A student's attendance may play a role in determining borderline grades at the end of the semester. Participating and asking questions is a great way to make effective use of classroom time.

Tests: Three tests will be given in class on the days listed in the schedule. Each test will be 15% of your overall course grade. All tests must be taken in the Testing Center. You may take each test only once. Students are expected to take the tests as scheduled in the syllabus. Make-up exams will NOT be given except in documented emergencies, such as death in immediate family, hospitalization, active military duty, DSU-sponsored-events requiring mandatory attendance (proof of attendance required). You must notify your instructor immediately in the case of an emergency for consideration and get prior consent if not an emergency. The lowest test score (percentage) can be replaced with the final exam percentage. You may not access websites or wear headphones while taking exams. Only non-graphing scientific calculators are allowed on exams.

Final Exam: The final comprehensive exam is worth 30% of your overall course grade and must be taken on **Monday, April 29 at 7AM in our usual classroom.** You may take the final comprehensive exam only once. You may not access any websites or wear headphones while taking your final exam. Only non-graphing scientific calculators are allowed on the final exam.

Calculators: Only non-graphing scientific calculators are allowed on tests. Cell phones, iPads, graphing calculators, etc. may not be used during tests.

Grading Policy: Tests 15% each; Homework/Test Reviews 25%; Final Exam 30%. Letter grades will be assigned as follows:

Α	94 - 100%	В	83 - 86%	C	70 - 74%	D	55 - 59%
A-	90 - 93%	B-	80 - 82%	C-	65 - 69%	D-	50 - 54%
B+	87 - 89%	C+	75 - 79%	D+	60 - 64%	F	0 - 49%

Respect for Others: Please plan to arrive on time and be prepared to work (i.e., have your pencil, eraser, book, paper, homework, and calculator). Additionally, please feel free to offer your opinions and questions to the class, but do not carry on side discussions. **Cell phones should be turned off during class unless being used for a classroom activity.** In general, students may not engage in an activity which the instructor deems disruptive or counter-productive to the goals of the class. Instructors have the responsibility to remove offending students from the class. Repetition of offensive behavior may result in expulsion from the class.

Dishonesty: Dishonesty will not be tolerated in any form. Any student cheating on a test will receive a zero on that exam. Giving as well as receiving information is dishonest, so be aware of those around you while taking tests. Instructors are required, by university policy to report dishonesty to the student conduct committee. http://www.dixie.edu/humanres/policy/sec3/334.html.

Policy for Absences Related to College Functions:

http://www.dixie.edu/humanres/policy/sec5/523.html

Disability Resource Center (DRC): If you are a student with a medical, psychological, or learning disability or think you might have a disability and would like accommodations, contact the Disability Resource Center (652-7516) in the North Plaza. The Disability Resource Center (http://dixie.edu/drcenter/) will determine eligibility of the student requesting special services and determine the appropriate accommodations related to their disability.

Title IX Statement: DSU seeks to provide an environment that is free of bias, discrimination, and harassment. If you have been the victim of sexual harassment/misconduct/assault we encourage you to report this to the college's Title IX Director, Cindy Cole, (435) 652-7731, cindy.cole@dixie.edu. If you report to a faculty member, she or he must notify the Title IX Director about the basic facts of the incident.

Library: A copy of the text and complete solutions manual for in-house use only are at the Reserve Desk in the Library. For more information concerning the library and hours of operation go to http://library.dixie.edu

Tutoring: Drop in tutoring is available at the eLab in SNOW 145: https://math.dixie.edu/elab/.

Testing Center: http://dixie.edu/testing

Computer Lab: The Computer Lab is located in SNOW 002. There are also computers available for student use in the Holland building.

Dmail: You are required to frequently check your Dmail account. Important class and university information will be sent to your Dmail account, including DSU bills, financial aid/scholarship notices, notices of cancelled classes, reminders of important dates and deadlines, and other information critical to your success at DSU and in your courses. To access your Dmail account, visit go.dixie.edu/dmail. If you do not know your Dmail username or you have forgotten your PIN, visit go.dixie.edu/mydixie and follow the respective instructions.

Withdrawing from or dropping a class: If you never attend a class, the instructor may withdraw you from it. If you attend even one day, the instructor cannot withdraw you from the class. Since not all instructors will withdraw you for non-attendance, you should take care of that transaction for yourself by going to the registration window. If you quit attending and do not withdraw from the class, you will receive an F.

Changing your schedule: It is your responsibility, as the student, to ensure the accuracy of your class schedule. Be sure to check at the beginning of the semester and after every change you make to your schedule. Run a hard copy and keep it!

Complete Withdrawal: Dropping all classes by phone or online does not withdraw you from the college and you may receive all F's. You must contact the Advisement Center, complete a withdrawal form, and surrender your student ID card

Changes: Although unlikely, this syllabus and/or the assignment schedule may be changed if deemed necessary by the instructor. All changes will be announced in class and/or sent to you via Canvas.