Dixie State University
http://www.dixie.edu
Calculus III (4.0 credits)
CRN 20047 Math 2210-01 Spring 2019

Instructor: Dr. Jesse Hicks
Phone: (435) 879-4361
Email: jesse.hicks@dixie.edu
Office: SNOW 141
Office Hours: MW 9-11 AM
eLab Hour: W 10 AM

Classroom: SNOW 151
Class time: M-Th 12-12:50PM
Date Range: Jan. 7 – May 2, 2019

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. Use plane and space vectors to solve applications in geometry and physics.
2. Use space curves to analyze the motion of an object.
3. Use contour diagrams to analyze the behavior of a function of several variables.
4. Use partial derivatives to solve optimization problems.
5. Set up and compute double and triple integrals using rectangular, polar, cylindrical, and spherical coordinates.
6. Use line integrals to compute the work done by a vector field along a curve.
7. Use surface integrals to compute the flux of a vector field through a surface.
8. Use multiple integrals to calculate line and surface integrals.

Catalog Description: Fulfills General Education Mathematics requirement. Continuation of MATH 1220. Includes vectors and the geometry of space, vector functions, partial derivatives, multiple integrals, and vector calculus. Required for Utah Level 3 and Level 4 Endorsement.

Prerequisite: Math 1220 (Grade C or higher).

Class Structure: This section will have daily homework assigned and turned in from the course textbook and four written exams in the testing center. The final will be cumulative and taken in the testing center.

eTextbook: Your textbook for this class is available by 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 August 2018, the price for a hardcover printed version was $33.50.

Calculus Volume 3 from OpenStax, https://openstax.org/details/books/calculus-volume-3

Homework: Assignments are to be completed daily and will be due two days after they are assigned. All homework must be scanned, saved in pdf form, and submitted through Canvas. 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 spent in class. Homework will count as 15% of your final grade.

Attendance and Participation: Class attendance 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: Four tests will be given in the Testing Center during the dates listed on Canvas. Each test will be 15% of your overall course grade. You may take each test only once. Students are expected to take the tests as scheduled in the syllabus. You may not take the test after the due date. 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 25% of your overall course grade and must be taken in the Testing Center during the dates listed on Canvas. You may take the final comprehensive exam only once. You may not access any websites or wear headphones while taking any 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 15%; Final Exam 25%. Letter grades will be assigned as follows:

A	94 – 100%	**B**	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 (and private tutoring by appointment) is available at the eLab in SNOW 002: 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.

MATH 2210 FALL 2018 TENTATIVE SCHEDULE

MON	TUE	WED	THU
1/7	1/8	1/9	1/10
1.1	1.2	1.2 and 1.3	1.3

1/14	1/15	1/16	1/17
1.4	1.5	2.1	2.2

1/21	1/22	1/23	1/24
HOLIDAY	2.3	2.4	2.5

1/28	1/29	1/30	1/31
2.6	2.7	3.1	EXAM 1

2/4	2/5	2/6	2/7
3.2	3.3	3.4	4.1

2/11	2/12	2/13	2/14
4.2	4.3	4.4	4.5

2/18	2/19	2/20	2/21
HOLIDAY	4.6	4.7	EXAM 2

2/25	2/26	2/27	2/28
4.7	4.8	4.8	5.1

3/4	3/5	3/6	3/7
5.2	5.3	5.4	5.4

3/11	3/12	3/13	3/14
SPRING BREAK			

3/18	3/19	3/20	3/21
5.5	5.5	5.6	EXAM 3

3/25	3/26	3/27	3/28
5.7	5.7	6.1	6.1

4/1	4/2	4/3	4/4
6.2	6.2	6.3	6.3

4/8	4/9	4/10	4/11
6.4	6.4	6.5	EXAM 4

4/15	4/16	4/17	4/18
6.6	6.6	6.7	6.8

4/22	4/23	4/24	4/25
REVIEW	REVIEW	REVIEW	READING DAY

4/29	4/30	5/1	5/2
FINALS	FINALS	FINALS	FINALS

HOMEWORK SCHEDULE
(Tentative, check Canvas for changes)

Section	PROBLEMS
1.1	1, 11-25odd, 39-45odd, 55
1.2	63-69odd, 81, 83, 99, 101, 109, 115, 119
1.3	127-129, 133-147odd, 155-171odd, 175, 177
1.4	195-207odd, 212, 219, 221, 237, 239
1.5	255-267odd, 271-275odd, 313, 319
2.1	1-11odd, 15, 17, 27-35odd, 47-51odd
2.2	61, 65-87odd, 91, 93, 99, 115
2.3	123-135odd, 141, 143, 153, 166, 167-171odd, 175, 177
2.4	183-191odd, 209-215odd, 229, 235, 239
2.5	245-255odd, 259-271eoo, 277, 283
2.6	303-311eoo, 313-318, 319-339eoo, 345-351odd
2.7	365-375odd, 381-413odd, 417
3.1	2,5,6,7,11,15,18,19,23,33,34
3.2	43-55odd, 59-61, 69, 75, 99, 101
3.3	103, 107, 109, 115, 117, 125-135odd, 141
3.4	155-159odd, 163, 169-171, 178, 179-185odd
4.1	1, 3, 5, 6, 7, 11-17odd, 23, 31, 39, 41, 49, 51, 56 ,57
4.2	61-67odd, 77, 81, 83, 91-97dd, 101
4.3	113, 119-127odd, 133-139odd, 145, 147, 157
4.4	163, 171-175odd, 183, 185, 191, 195, 203, 205
4.5	217-221odd, 227-333odd, 243, 251, 253
4.6	269-275odd, 281, 285, 293, 295, 301, 303, 308
4.7	319-327odd, 333, 343, 345, 349
4.8	359, 361, 363, 379, 387
5.1	5, 13-23odd, 29, 35

5.2	63-65, 73, 77-85odd, 93, 95, 99, 109
5.3	125-131odd, 135, 139, 149, 151, 159, 163
5.4	183, 187, 195, 199, 212, 221, 227a
5.5	241, 245, 249, 257, 259, 271, 281, 285
5.6	297, 299, 308, 215, 217, 341
5.7	359, 365, 369, 373, 379-383odd, 391, 397, 399, 405
6.1	5-11odd, 15-23odd, 28, 29, (35-38 use computer)
6.2	47-59odd, 65, 80, 87,89
6.3	101-119odd, 127, 141
6.4	147-151odd, 155, 181-185odd, 189, 192, 201, 203
6.5	207-215odd, 223-227odd, 233, 243, 249, 252
6.6	273-277odd, 281-285odd, 291-295odd
6.7	335-339odd, 343, 353
6.8	385-393odd