FAIRMONT STATE UNIVERSITY

Calculus III
Math 3503-001 || CRN: 10519 || Fall 2022

Instructor:	Dr. Tom Cuchta
Email:	tcuchta@fairmontstate.edu
Time:	MTWF 11:00–11:50
Location:	ET 436
Office:	ET 423
Drop-in office hours:	Please see my website for the times when I have scheduled my daily office hours: http://tomcuchta.com. Office hour times may change without notice; the website will always contain my current official schedule. Alternate times may always be scheduled by email.
Class webpage:	http://tomcuchta.com/teach/classes/2022/MATH3503-Fall2022-FairmontState/
Textbook:	"Calculus Volume 3" by OpenStax
	(freely downloadable at https://openstax.org/details/books/calculus-volume-3)
Course description:	This course is a continuation of MATH 2501. Topics include applications of the definite integral, exponential and logarithmic functions, inverse trigonometric functions, techniques of integration, conic sections, plane curves and polar coordinates, limits involving indeterminate forms, improper integrals, sequences, and infinite series.
Prerequisites:	MATH 2502
Tech requirements:	Written homework will be regularly submitted to Blackboard. Online homework will be done via WeBWork. Some free online calculators and function plotters (e.g. WolframAlpha, Desmos, CalcPlot3D) will be used, but students are not assumed to know how to use them in advance.
Course delivery:	Our course will meet in-person. There will be no synchronous streaming.
Attendance policy:	Attendance itself will ***not*** be recorded for a grade. If a class is missed, then it is the ***student's responsibility*** to find out what was missed.
Exams:	There will be four regular exams and a final exam in this course.
Coursework:	You will receive work in this course in various "grade categories", described on the next page. The following standard scale applies to exams and online homework:

Grade	Percentage
A	$\geq 90\%$ of points
B	$\geq 80\%$ of points
C	$\geq 70\%$ of points
D	$\geq 60\%$ of points

Your quiz work and written homework will be given on a grade as follows:

A	B	C	D	F
+4 points	+3 points	+2 points	+1 point	+0 points

- "A" (+4) – excellent; perfect submission, no errors;

- "B" (+3) – good; nearly perfect maybe with some errors (e.g. arithmetic);

- "C" (+2) – some problems; there are some issues but you are on the right track;

- "D" (+1) – tried; there are fundamental issues or misunderstandings but it is clear that you made an honest attempt; and

- "F" (+0) – not gradable; does not seem to contain an honest attempt at the work.

Written work:	Written homework is comprised of problems that will be assigned on the class webpage and submitted through Blackboard. Generally speaking, there will be approximately one such assignment per week of class. Grades of B, C, D, or F will receive feedback from the instructor that must be addressed if the student chooses to revise the submission. Revisions of written homework may be submitted until the end of the 5 weeks period **after** it was assigned. Revisions must come with a reflection essay, at least two paragraphs long, containing **both** a description of what went wrong with the student's thinking and approach in the first submission **and** a description of what was done to improve it in the resubmitted version. Only problems identified in the feedback need to be revised, but the *whole* problem should be rewritten (not just "corrected"). Improperly formatted revisions will be returned with the grade of F. The highest score among all submissions will be the one that counts for the grade.
Online work:	Online homework will be administered through the Fairmont State instance of WeBWorK, which can be found at `https://csmath.fairmontstate.edu/webwork2`. Homework may be attempted an infinite number of times, and the highest point score earned will be counted.
Quizzes:	Quizzes will be regularly given in class and will not be announced in advance. You may retake a quiz up to two times through LEAD Center proctoring.
Accessing WeBWork:	The online homework is provided for **free** by Fairmont State University at our WeBWork server. This server can be accessed on campus by going to `https://csmath.fairmontstate.edu`. If you are off campus, then you will need to use the Fairmont State cloud service to access the online homework system. See the following webpage for an explanation of reaching WeBWork from off-campus: `http://tomcuchta.com/fsucsmathserver`.
Final grade:	Each grade category (written HW+quizzes, online HW) will receive a letter grade for each 5 week period based on the work that was due in that 5 week period. The ultimate "5 week period" grade will be the lowest grade among all categories for that period. Your exams will be averaged together to form another grade. Your final grade in the course will be the lowest of your grades from the three 5 week periods and exams. For example, consider the following chart of possible grades in a semester:

5 Wk. Period	Written HW + Quizzes	Online HW	Total Grade
1	C	B	**C**
2	B	A	**B**
3	A	A	**A**

	In that case, the final grade in the course is a "C" (the lowest grade in the rightmost column). That grade is compared with your exams grade and the lower of the two is the course grade.
LEAD Center:	The Learning Enrichment and Academic Development Center (LEAD) is located on the second floor of the library and provides students with free support resources, including learning assistance in a wide range of courses. The LEAD Center opens no later than the second week of classes. To book an appointment, see more information on services, hours, or a list of current workshops, visit `https://www.fairmontstate.edu/academics/lead-center`. You may also contact the coordinator Brittany Cuchta at `lead@fairmontstate.edu`.
Cheating:	I encourage you to work together, to attend tutoring, and to seek out help from me. However, copying the work of others and not putting in an honest effort yourself is not acceptable. If you are caught cheating on any assignments, then you will forfeit any points on that assignment with no possibility of revision. If you are caught cheating more than once, then you may receive an "F" in the course.
Safety:	We follow the university guidelines, which may change as the semester progresses. See the current university policy pertaining to the coronavirus here: `https://www.fairmontstate.edu/coronavirus`. Those who prefer to always wear a mask are encouraged to do so.

Student handbook:	http://www.fairmontstate.edu/publications/campushandbooks/studenthandbook/default.asp
Accessibility support:	Accessibility services are available to any student, full or part-time, who has a need because of a documented disability. It is the student's responsibility to register for accessibility services and to provide any necessary documentation to verify the need for accommodations. Students must provide their professors with a copy of their academic accommodation letter each semester in order to receive accommodations. Faculty, students, and the Office of Accessibility Services must cooperate to ensure the most effective provision of accommodations for each class.
	The Office of Accessibility Services is located in 237 Hardway Hall. For additional information, please call (304) 367-4543.
Learning outcomes:	All learning outcomes will be assessed via written homework.

1. Graph and apply concepts of calculus using parametric equations and polar coordinates.

2. Demonstrate conceptual understanding of and facility with the partial derivative, synthesizing mathematical knowledge to model, interpret and calculate the partial derivative of a function.

3. Apply partial derivatives to solve a variety of real world problems using appropriate strategies and symbolic manipulation skills.

4. Demonstrate conceptual understanding of and facility with multiple integrals.

5. Investigate and solve unfamiliar math problems.

Estimated Math 3503-001 Calendar Fall 2022

Week	Sections
8 Aug – 12 Aug	
15 Aug – 19 Aug	
22 Aug – 26 Aug	
29 Aug – 2 Sep	***EXAM 1***
5 Sep – 9 Sep	***NO CLASS*** 5 September (Labor Day)
12 Sep – 16 Sep	
19 Sep – 23 Sep	***EXAM 2***
26 Sep – 30 Sep	
3 Oct – 7 Oct	
10 Oct – 14 Oct	***EXAM 3***
17 Oct – 21 Oct	
24 Oct – 28 Oct	
31 Oct – 4 Nov	***EXAM 4***
7 Nov – 11 Nov	
14 Nov – 18 Nov	***FINAL EXAMS*** starting 15 November