FAIRMONT STATE UNIVERSITY

Calculus II

Math 2502-001 || CRN: 20593 || Spring 2022

Instructor: Dr. Tom Cuchta
Email: tcuchta@fairmontstate.edu
Time: MTWF 11:00–11:50
Location: HH 305 (**and virtual**)
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. You are welcome to meet with me virtually during this time – just email or message me in Teams. Office hour times may change without notice; the website will always contain my current official schedule. Alternate times may always be scheduled.
Class webpage: http://tomcuchta.com/teach/classes/2022/MATH2502-Spring2022-FairmontState/
Textbook: "Calculus Volume 2" by OpenStax
(freely downloadable at https://openstax.org/details/books/calculus-volume-2)
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 1190 or MATH 2501
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 is designed as "Lecture", meaning it meets in person every class day. Due to extra university requirements, the class will be synchronously streamed and recorded.
Attendance policy: In-person or virtual 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 **no exams** 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 universally:

Grade	Percentage
A	≥90% of points
B	≥80% of points
C	≥70% of points
D	≥60% of points

Your coursework 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: The content that would otherwise be on an exam will be broken down into smaller assignments. There will be approximately two such assignments per week of class, each with its own due date that will be specified (typically within one week of assignment). 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 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.

Timely completion: There will be some points assigned to you for completing your **written homework** in a timely fashion. You must submit your first attempt by its due date and also get a score of A, B, C, or D on it to get the +1. Otherwise you receive +0 timely completion points for that submission. Timely completion for homework submitted via Blackboard will be indicated by increasing the base score by 0.5. For example, a "3.5" means you earned an "B" and received timely completion.

Timely completion points convert into written work points:

$$1 \text{ timely completion points} = 1 \text{ written work point}$$

IMPORTANT: This conversion for timely completion can only increase your written work score by up to 10% of the total possible written work points **in a given 5 week period**. Timely completion earned in any 5 week period applies only to that 5 week period. Staying on top of your work can increase your grade by one letter!!

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.

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 work, online work, presentations, and peer review) 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 final grade in the course will be the lowest of your grades from the three 5 week periods. For example, consider the following chart of possible grades in a semester:

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

In that case, the final grade in the course is a "C".

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. Assistance is primarily offered on a drop-in basis with appointments available for select courses. 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

Disability support: Disability 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 disability services and to provide any necessary documentation to verify a disability or 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 Disability Services must cooperate to ensure the most effective provision of accommodations for each class.

The Office of Disability Services is located in suite 316 of the Turley Student Services Center. For additional information, please call (304) 333-3661 (**TTY**: (304) 367-4906).

Learning outcomes: All learning outcomes will be assessed via written homework.

1. Demonstrate conceptual understanding of and facility with the integral.
2. Analyze and solve problems involving sequences and series.
3. Integrate functions using a variety of techniques of integration
4. Analyze and solve real world problems using integration.

Estimated Math 2502-001 Calendar Spring 2022

Week	**Sections**
10 Jan – 14 Jan	
17 Jan – 21 Jan	***NO CLASS*** MLK Day
24 Jan – 28 Jan	
31 Jan – 4 Feb	
7 Feb – 11 Feb	
14 Feb – 18 Feb	
21 Feb – 25 Feb	
28 Feb – 4 Mar	***SPRING BREAK***
7 Mar – 11 Mar	
14 Mar – 18 Mar	
21 Mar – 25 Mar	
28 Mar – 1 Apr	
4 Apr – 8 Apr	
11 Apr – 15 Apr	
18 Apr – 22 Apr	
25 Apr – 29 Apr	***FINALS WEEK***