Course Syllabus

Course Logistics and Instructor Contact Information

Multivariable Calculus
MATH 2415
MTWThF 10:40 - 12:10 in RBN 4024.

Instructor Name: Nathan Smith
Office Location: RBN 4007
Email: nsmith@uttyler.edu

Office Hours: Tentatively 12:20-1:20 MWF, 9:40-10:40 T/Th or by appointment.

Course Information

TEXT: There is no text to purchase, we'll be using an online text, which you can read online at https://openstax.org/details/books/calculus-volume-3/ (or you can download a pdf copy if you prefer).

STUDENT LEARNING OUTCOMES: By the end of the course students should be able to:

1. use vectors to describe lines, planes, and curves;
2. apply the operations of calculus to multivariable functions
3. solve problems using the Fundamental Theorem of Line Integrals, Green's Theorem, Stokes' Theorem, and the Divergence Theorem;
4. solve real world problems using multivariable techniques.

GRADING: There will be four tests, tentatively May 20, June 2, June 12, and June 26. Concurrent with test 4 on the 26th there will be a (shortened) comprehensive final exam. Each of these (the four tests and the final exam) will be worth 17% of your semester grade, for a total of 85% of your semester grade.

We will also have quizzes every Monday, Wednesday and Friday that we are not taking a test. Collectively these will count for the remaining 15% of your final course grade.

Earning an overall weighted average of 90% or greater on your tests/quizzes/exams as described above guarantees a semester grade of A, an overall weighted average of 80% or greater guarantees a B, etc.

LATE WORK AND MAKE-UP EXAMS: I will be dropping your two lowest quiz grades. If

you miss a quiz due to some emergency situation, then, this drop policy is intended as a remedy for this. Obviously, this course happens on a foreshortened time scale, so any missed exams will need to be made-up quickly, before the tests are handed back.

ARTIFICIAL INTELLIGENCE: UT Tyler is committed to exploring and using artificial intelligence (AI) tools as appropriate for the discipline and task undertaken. We encourage discussing AI tools' ethical, societal, philosophical, and disciplinary implications. All uses of AI should be acknowledged as this aligns with our commitment to honor and integrity, as noted in UT Tyler's Honor Code. Faculty and students must not use protected information, data, or copyrighted materials when using any AI tool. Additionally, users should be aware that AI tools rely on predictive models to generate content that may appear correct but is sometimes shown to be incomplete, inaccurate, taken without attribution from other sources, and/or biased. Consequently, an AI tool should not be considered a substitute for traditional approaches to research. You are ultimately responsible for the quality and content of the information you submit. Misusing AI tools that violate the guidelines specified for this course (see below) is considered a breach of academic integrity. The student will be subject to disciplinary actions as outlined in UT Tyler's Academic Integrity Policy.

For this course, you may not use AI tools to produce anything turned in for a grade.

Student Resources

University Policies and Information

TENTATIVE SCHEDULE / COURSE OUTLINE:

DATE	**TOPIC**
Week one	
May 11	1.1 and 1.2
May 12	1.2 and 1.3
May 13	1.3 and 1.4
May 14	2.1 and 2.2
May 15	2.2 and 2.3
Week two	
May 18	2.3 and 2.4
May 19	get thru 2.4

May 20	TEST ONE
May 21	2.5
May 22	2.6
week three	
May 26	2.7
May 27	3.1 and 3.2
May 28	3.2 and 3.3
May 29	3.3 and 3.4
week four	
June 01	catch up
June 02	TEST TWO
June 03	4.1 and 4.2
June 04	4.2 and 4.3
June 05	4.3 and 4.4
week five	
June 08	4.4 and 4.5
June 09	4.6
June 10	4.7
June 11	4.8 review catch up
June 12	TEST THREE
week six	
June 15	5.1 and 5.2
June 16	5.3 and 5.4
June 17	5.4 and 5.5
June 18	5.7
week seven	
June 22	6.1 and 6.2
June 23	6.2 and 6.3
June 24	6.3 and 6.4
June 25	6.5
June 26	TEST FOUR/FINAL