Winter 2025, TR 10:30-12:20 pm, SE 118

Math 161*01 Syllabus

Instructor Information

• Instructor: Tom Zerger

• Office: SW 307

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• phone: 989-964-4334

• Office Hours: MW 2:30 - 3:30; TR 9:20-10:20 (Other times by appointment)

Course Information

• Text: Calculus, 9th edition by James Stewart, Cengage Learning, 2021. (Earlier versions are also acceptable)

• Material covered: Chapters 1-5 and other topics as time permits.

• Course description: Introduction to limits, continuity, derivatives, and integrals. Applications of derivatives and integrals.

Additional Help and Information

- The Math & Physics Resource Center provides free walk-in tutoring support for students in MATH 081 MATH 262 and PHYS 107 212. It is located on the second floor of the Zhanow library. Link: Math Resource Center
- Be sure not to wait to get help when you are finding the content difficult. Be sure to utilize office hours and the tutoring center, and it can be helpful to work with your classmates as well. Be sure to practice on your own as well since exams (a majority of your grade) and quizzes will require you to work independently.
- Calculators: It is expected that everyone have at least a scientific calculator with trigonometric, logarithmic, and exponential functions. A graphing calculator is not required. Calculations of limits, derivatives and integrals are part of the requirement and assessment in this course, so calculators, such as the TI- 89, the TI-Nspire CAS, or others that have CAS capabilities will NOT be allowed on quizzes or exams. Other electronic devices such as cell phones will not be allowed on quizzes or exams.
- Software: There is software available on-line and one such place is at at https://cocalc.com/ which would require some knowledge of programs like Sage(Python) or R. Geogebra is free software you can download (Classic 6 has everything) to your computer at https://www.geogebra.org. It has all the capability you would need for this course, but for courses like Calc III where three-dimensional graphics are involved, MAPLE or similar software is necessary. Desmos is a web-based graphing calculator that you can access for free as well and can be accessed at https://www.desmos.com/.
- WeBWorK is an on-line system with sample practice problems that will also be utilized. This will be used as part of your graded work.

Academic Integrity

• Academic Integrity: "Academic integrity is undermined whenever one is dishonest in the pursuit of knowledge. Dishonesty takes many forms, including cheating, plagiarism, illicit acquisition or selling of academic material, and other activities for undermining the educational process:" Definitions and further information can be found at https://www.svsu.edu/studentconductprograms/policies/academicintegritypolicy/

Tentative Schedule

Week	Date	Tuesday material	Thursday material	Topic
1	Jan 14,16	1.1-1.4	1.5, 1.6	Tangent and Velocity, Limits
2	Jan 21, 23	1.7, 1.8	1.8, 2.1	Limits, Continuity, IVT
3	Jan 28, 30	2.2, 2.3	2.3, 2.4	Derivatives
4	Feb 4, 6	2.5, Review	Exam 1: 1.1-2.4	Chain Rule
5	Feb 11, 13	2.6, 2.7	2.7, 2.8	Implicit diff. and Related Rates
6	Feb 18, 20	2.9, 3.1	3.1, 3.2	Differentials, Extreme Values, MVT
7	Feb 25, 27	3.2, Review	Exam 2: 2.5-3.2	'
8	Mar 3-9	Spring Break	Spring Break	
9	Mar 11, 13	3.3, 3.4	3.4,3.5	Derivatives and Curve properties
10	Mar 18, 20	3.6, 3.7	3.7, 3.8	Optimization, Newton's Method
11	Mar 25, 27	3.9, 4.1	4.1, 4.2	Antiderivatives, Integrals
12	Apr 1, 3	4.3, 4.4	4.4, 4.5	FTC, Net Change, Substitution
13	Apr 8, 10	4.5, Review	Exam 3: 3.3 - 4.5	Substitution
14	Apr 15, 17	5.1, 5.2	5.2, 5.3	Area and Volume
15	Apr 22, 24	5.4, 5.5	Review	Work and Average Value
16	Apr 29	Final Exam	10:30-12:20	Comprehensive

• March 28, 2025 Last Day to withdraw with a "W".

Grading

- Three exams at 200 points each for a total of 600 points. See the dates on the schedule.
- A comprehensive final exam at 200 points. See the date on the schedule.
- There will also be a "homework" score of 200 points, where "homework" will consist of WebWork assignments, take-home assignments, in-class assignments, quizzes, and/or computer assignments. There are no make-ups on missed "homework" assignments your lowest two scores will be dropped.
- Evidence of dishonesty (unauthorized aid) on graded coursework will result in a score of 0.

This a total of 1000 points. Grades will be determined by the following point totals and corresponding percentages.

Total points	Grade	Percentages
930 - 1000	A	93 - 100
900 - 929	A-	90 - < 93
870 - 899	B+	87 - < 90
830 - 869	B	83 - < 87
800 - 829	B-	80 - < 83
770 - 779	C+	77 - < 80
700 - 769	C	70 - < 77
600 - 699	D	60 - < 70
000 - 599	F	00 - < 60