MATH 1571 - Calculus 1

Fall 2026 Syllabus, Section 03, CRN 40497,

Credit hours: 4

Instructor

Jamal Tartir

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Public Instructor Information

Instructor Title: Professor
Instructor Professional Qualifications: Doctor of Philosophy in Mathematics, Ohio University
Master of Arts in Mathematics, Miami University
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Course Description

1571. Calculus 1.This course is an introduction to calculus. The main concepts to be studied are limits, continuity, rates of change, derivatives, integrals and applications. Prereq.: At least Level 70 on the YSU Mathematics Placement Test or C or better in either MATH 1510 and MATH 1511, MATH 1510C and MATH 1511C, or MATH 1513. 4 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Calculus	James Stewart	978-1-285-74062-1

Course Notes. See Blackboard page.

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Week of	Reading(s)	Proposed Topic	Due/To Prepare for Class
8/24	Note Chapters 1 -- 6.	Algebra and Trigonometry	Study the notes along with the corresponding/related material in the textbook. Work the assigned exercises in the textbook/notes
8/31	Note Chapters 7 -- 12.	Trigonometric Identities, Linear and Quadratic Functions	Study the notes along with the corresponding/related material in the textbook. Work the assigned exercises in the textbook/notes
9/7	Note Chapters 13 -- 15.	Polynomials, Rational Functions, and Limits	Study the notes along with the corresponding/related material in the textbook. Work the assigned exercises in the textbook/notes
9/14	Note Chapters 16 -- 19.	Limit Theorems and Continuity	Study the notes along with the corresponding/related material in the textbook. Work the assigned exercises in the textbook/notes

9/21	Note Chapters 20 -- 23.	Intermediate Value Theorem, Infinite Limits, Limits at Infinity, and Asymptotes	Study the notes along with the corresponding/related material in the textbook. Work the assigned exercises in the textbook/notes
9/28	Note Chapters 24 -- 25.	Trigonometric Functions and Derivatives	Study the notes along with the corresponding/related material in the textbook. Work the assigned exercises in the textbook/notes
10/5	Note Chapters 26 -- 28.	Derivatives of Algegraic Functions, the Chain Rule, Slope of the Tangent Line	Study the notes along with the corresponding/related material in the textbook. Work the assigned exercises in the textbook/notes
10/12	Note Chapters 29 -- 32.	Higher Derivatives, Rates of Change, Derivatives of Trigonometric Functions, Implicit Differentiation	Study the notes along with the corresponding/related material in the textbook. Work the assigned exercises in the textbook/notes
10/19	Note Chapters 33 -- 35.	Derivatives and Graphs, Related Rates	Study the notes along with the corresponding/related material in the textbook. Work the assigned exercises in the textbook/notes
10/26	Note Chapters 36 -- 38.	Optimization, Approximation, the Mean Value Theorem	Study the notes along with the corresponding/related material in the textbook. Work the assigned exercises in the textbook/notes
11/2	Note Chapters 39 -- 40.	Summations and the Reimann Integral	Study the notes along with the corresponding/related material in the textbook. Work the assigned exercises in the textbook/notes
11/9	Note Chapters 41 -- 44.	Integral Properties, Fundamental Theorem of Calculus, Substituion	Study the notes along with the corresponding/related material in the textbook. Work the assigned exercises in the textbook/notes
11/16	Note Chapters 45 -- 46.	Area, Average Value, Mean Value Theorem	Study the notes along with the corresponding/related material in the textbook. Work the assigned exercises in the textbook/notes
11/23	Chapter 47.	Volume	Study the notes along with the corresponding/related material in the textbook. Work the assigned exercises in the textbook/notes
11/30	Chapters 48 -- 49.	Solids of Revolution and Work	Study the notes along with the corresponding/related material in the textbook. Work the assigned exercises in the textbook/notes
12/7	Final Exam Week		

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.