

MATH 1570 - Applied Calculus 1

Fall 2026 Syllabus, Section 02, CRN 40494,

Credit hours: 4

Instructor

Paul Nachim

Email: pmnachim@ysu.edu

Instructor Title: Lecturer

Instructor Professional Qualifications: M.S., Mathematics, 1990

Instructor Office Location: Cafaro Hall, Room 622

Instructor Office Phone: (330) 941-3302

Course Description

1570. Applied Calculus 1. The elements of differential and integral calculus, with emphasis on applications. Analytical geometry, differentiation and integration techniques and series representations. Introduction to differential equations, transform calculus, and Fourier analysis. This is a basic methods course particularly adapted for those who require applied topics in mathematics. Not applicable toward the Mathematics major. Credit will not be given for both MATH 1552 and MATH 1570. 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
Optional	Technical Calculus with Analytic Geometry (fifth edition)	Peter Kuhfittig	

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	1.4, 3.3	Functions and Curve Sketching	
8/31	supplemental	Graphing Literacy and Analysis	
9/7	2.1 - 2.4	The Limit and the Derivative	
9/14	2.5 - 2.9	The Derivative of a Function	
9/21	3.1 - 3.3	Applications of the Derivative: Curve Sketching	
9/28	3.4 - 3.6	Applications of the Derivative: Optimization and Related Rates	
10/5	4.1 - 4.4	The Integral: the Antiderivative	
10/12	4.5 - 4.6	The Integral: the Fundamental Theorem	
10/19	4.7 - 4.9	The Integral: Area and Applications	
10/26	6.1 - 6.3	Transcendental Functions: Trigonometric	
11/2	6.4 - 6.7	Transcendental Functions: Exponential and Inverse	
11/9	6.8 - 6.10	Transcendental Functions: Applications	
11/16	8.1	Vectors and Parametric Equations	
11/23	7.1 - 7.3	Integration Techniques	
11/30		Catchup and Review	

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.