

MATH 1571 - Calculus 1

Fall 2026 Syllabus, Section 02, CRN 40496,

Credit hours: 4

Instructor

Padraic Taylor

Email: pwtaylor@ysu.edu

Public Instructor Information

Instructor Title: Dr. Paddy Taylor

Instructor Professional Qualifications: *Ph. D., Mathematics, North Carolina State University, 2006*

Instructor Office Location: *Cafaro 608*

Instructor Office Phone: *330-941-2422*

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 (8th edition) with Webassign	James Stewart	9781337881678

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	1.1, 1.3	Background Info and Functions	
8/31	1.4-1.6	Limits	
9/7	1.7, 1.8	Definition of Limit, Continuity	
9/14	1.8, 2.1	Continuity, The Derivative	
9/21	2.2, 2.3	The Derivative Function, Differentiation Formulas	
9/28	2.3-2.5	Differentiation Formulas, Derivatives of Trig Functions, The Chain Rule	
10/5	2.6, 2.8	Implicit Differentiation, Related Rates	
10/12	2.9	Linearization and Differentials	
10/19	3.1	Max and Min values	
10/26	3.2, 3.3, 3.4	The Mean Value Theorem, Shapes of Curves, Limits at Infinity	
11/2	3.5, 3.7, 3.9	Curve Sketching, Optimization, Antiderivatives	
11/9	4.1, 4.2	Areas, Distance, and the Definite Integral	
11/16	4.3, 4.5	The Fundamental Theorem of Calculus, Substitution	
11/23	5.1, 5.2	Areas and Volumes	

11/30	5.4, 5.5	Work, Average Value of a Function
12/7		Finals 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.