

Youngstown State University
Department of Mathematics and Statistics

Course Outline for Mathematics 1571

Course Title: Calculus 1

Course Credit: 4 s.h.

Text: Calculus, (6th Edition) - James Stewart, Brooks/Cole

Or

Single Variable Calculus (6th Edition) – James Stewart, Brooks/Cole

Course Prereq: MATH 1571 requires either four high school units of mathematics (including trigonometry) and at least Level 7 on the Mathematics Placement Test, or MATH 1513.

Course Description: This course is an introduction to calculus. The main concepts to be studied are limits, continuity, rates of change, derivatives, integrals and applications.

Course Objectives: The goals for the course include:

- Developing an understanding of the fundamental concepts and techniques of differential and integral calculus.
- Understanding the importance of differential and integral calculus in a variety of applications.
- Developing the ability to read mathematics with understanding and to write mathematics understandably.

General Education Requirement: MATH 1571 is a General Education course. These general education goals are:

- To write and speak effectively.
- To process and present both quantitative and qualitative information using technology.
- To reason critically both individually and collaboratively.
- Comprehend mathematical concepts in both applied and abstract contexts.

Material Covered:

SECTIONS

TOPICS

1.1, 1.3

Functions and Models

2.1 – 2.5

Limits and Rates of Change

3.1 – 3.9

Derivatives

4.1 – 4.5, 4.7, 4.9

Applications of Differentiation

5.1 – 5.5

Integrals

6.1 – 6.5

Applications of Integration

Optional sections: 1.2, 1.4, 4.6, 4.8

Grading: A grading and attendance policy will be distributed by the instructor.

Students with Disabilities: In accordance with University procedure, if you have a documented disability and require accommodations to obtain equal access in this course, please contact the Office of Equal Opportunity and Disability Services at the beginning of the semester or when given an assignment for which an accommodation is required. Students with disabilities must verify their eligibility through the Office of Disability Service at 36 W. Wood Street, (330) 941-1372 intake procedure.

Need help? Stop in the Mathematics Assistance Center, Cushwa Hall, Room 3090, to inquire about the free services available for this course.

Cancelled Class Policy: Notice that this class is being cancelled for any one day because of instructor illness, or other reasons will be sent to the student address <...@student.yzu.edu> as soon as possible.

Semester: **Spring 2010**

Last Day to Withdraw with a “W” : **Thursday, March 25, 2010**

Mathematics Assistance Center (MAC): For all your mathematics needs:

- Tutoring
- Solutions Manuals
- Computers
- Study Area

Mathematics Assistance Center

Location: Cushwa Hall Room 3090
Website: <http://www.math.ysu.edu> (under "Student Services")
E-mail: mathassist@math.ysu.edu
Phone: 330-941-3274
Hours: Fall/Spring: Monday – Thursday: 9:00 a.m. – 5:00 p.m.
Friday: 9:00 a.m. – 3:00 p.m.

Check for services available for your course.