

## TCTC Calculus I (YSU Math 1571)

**INSTRUCTOR:** Dawn Haught

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**Web-site:** <http://teacherweb.com/OH/TCTC/DHaught>

**TEXT:** The 6<sup>th</sup> edition of James Stewart's *Calculus or Single Variable Calculus*

### SECTIONS TO BE COVERED:

- Chapter 1: Functions and Models
- Chapter 2: Limits, Rates of Change and Continuity
- Chapter 3: Derivatives
- Chapter 4: Applications of Differentiation
- Chapter 5: Integration
- Chapter 6: Applications of Integration

**PREREQUISITES:** Students must have a strong knowledge of Algebra and Trigonometry. They should have successfully completed Trigonometry and Pre-Calculus. Review over the summer before the course is required. An assignment will be due at the beginning of the class as a review of previous course material.

**GRADING:** Grades will be total points. Quizzes and Projects are worth 30-50 points each, Homework is worth 5 pts each, Tests are 100 points each. Comprehensive Semester and Final Exams will be a separate grade on the report card and will be 20% of the final grade for the class. (The Final Exam is a YSU departmental exam) Grades will be based on the TCTC grade scale:

Grade	Percentage
• A	92-100%
• B	83-91%
• C	74-82%
• D	66-73%
• F	0-65%

**TECHNOLOGY:** You may not use a calculator for any quiz, test or exam during the course including the YSU final exam.

### MATERIALS NEEDED FOR THE COURSE:

- 3-ring binder
- loose-leaf notebook paper
- dividers
- pencil
- scientific calculator (A Graphing Calculator if possible)

**COURSE EXPECTATIONS:** This is a college level course that is demanding. Students are expected to complete frequent homework assignments and will need to spend time out of school studying the material.

**Youngstown State University**  
**Department of Mathematics and Statistics**

Course Outline for Mathematics 1571

Course Title: Calculus 1

Course Credit: 4 s.h.

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

Or

Single Variable Calculus (6<sup>th</sup> 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:

<u>SECTIONS</u>	<u>TOPICS</u>
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.

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

- Tutoring
- Solutions Manuals
- Computers
- Study Area

**Mathematics Assistance Center**

Location:	Cushwa Hall Room 3090
Website:	<a href="http://www.math.yzu.edu">http://www.math.yzu.edu</a> (under "Student Services")
E-mail:	<a href="mailto:mathassist@math.yzu.edu">mathassist@math.yzu.edu</a>
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.**