

*Youngstown State University*

*Department of Mathematics and Statistics*

Course Outline for Mathematics 1572

Course Title: Calculus 2

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

Course Description: This course is a continuation of the study of calculus. The main concepts to be studied include inverse functions and more advanced techniques and applications of integration. In addition, the concepts of parametric equations, polar coordinates, and infinite sequences and series are introduced.

Course Objectives: The goals for the course include:

- Deepening an understanding of the concepts, techniques, and applications of integral calculus.
- Understanding the fundamental concepts of infinite sequences and series.
- Developing the ability to read mathematics with understanding and to write mathematics understandably.

Material Covered:

SECTIONS

7.1 – 7.6, 7.8

8.1 – 8.4, 8.8

9.1, 9.3

10.3

11.1 – 11.4

12.1 – 12.10

Optional sections:

TOPICS

Inverse Functions

Techniques of Integration

Further applications of the integral

Differential Equations

Parametric Equations and Polar Coordinates

Infinite Sequences and Series

7.7, 8.5-8.7, 9.2, 11.5

Grading: A grading and attendance policy will be distributed by the instructor, who will write the final exam for his/her section.

Need help? Stop in the Mathematics Assistance Center, Lincoln Building / Room 408, to inquire about the free services available for this course.

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 Services at 275 Fifth Avenue, (330) 941-1372 intake procedure.

**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: Fall 2011

Last Day to Withdraw with a “W” : Thursday, November 3, 2011

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

- Tutoring
- Solutions Manuals
- Computers
- Study Area

***Mathematics Assistance Center***

Location: Lincoln Building / Room 408  
Website: <http://www.math.yosu.edu> (under "Student Services")  
E-mail: [mathassist@math.yosu.edu](mailto:mathassist@math.yosu.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.***