

Youngstown State University

Department of Mathematics and Statistics

Course Outline for Mathematics 1572

Course Title: Calculus 2

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

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

TOPICS

7.1 – 7.6, 7.8

Inverse Functions

8.1 – 8.4, 8.8

Techniques of Integration

9.1, 9.3

Further applications of the integral

10.3

Differential Equations

11.1 – 11.4

Parametric Equations and Polar Coordinates

12.1 – 12.10

Infinite Sequences and Series

Optional sections:

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, Cushwa Hall, Room 3090, 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 36 W. Wood Street, (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.yasu.edu> as soon as possible.

Semester: **Fall 2010**

Last Day to Withdraw with a “W” : **Thursday, October 28, 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.