

Youngstown State University
Department of Mathematics and Statistics

Course Outline for Mathematics 2623

Course Title: Survey of Mathematics

Course Credit: 3 s.h.

Text: For All Practical Purposes: Mathematical Literacy in Today's World, Seventh Edition,
COMAP, W. H. Freeman and Company

Course Prereq: MATH 1501 or at least Level 3 on the Mathematics Placement Test.

Course Description: This course is an introduction to contemporary mathematics and its applications. It is designed as a mathematics course for students in non-science fields. Topics include a variety of practical problems which can be modeled and solved by quantitative means.

- Data analysis including understanding and interpreting quantitative information, recognizing the uses and misuses of statistics, and representing data by histograms and other graphs.
- The mathematics for voting systems and fair division.
- Finding optimal solutions to management problems such as collecting garbage, delivering mail, and connecting cities with long distance phone service

Course Objectives: MATH 2623 is a General Education course. MATH 2623 satisfies General Education Goal 5 and integrates Goals 1, 2, and 3 wherever possible. 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.

Course Outline

Instructors will select sections (though not necessarily all) from the following list (though not necessarily in the order given below) in order to satisfy the course description and objectives stated above. (Other sections could be chosen at the instructor's discretion to support these topics for the course.)

Chapter 1 Sections 1.1 - 1.4
Chapter 2 Sections 2.1 - 2.4
Chapter 3 Sections 3.1, 3.5
Chapter 5 Sections 5.1 - 5.9
Chapter 6 Sections 6.1 - 6.5
Chapter 7 Sections 7.1 - 7.6, 7.7, 7.8
Chapter 8 Sections 8.1 - 8.5, 8.6
Chapter 9 Sections 9.1 - 9.4
Chapter 11 Material on the Banzhaf Power Index
Chapter 13 Sections 13.1 - 13.2
Chapter 14 Sections 14.1 - 14.4

Attendance and grading 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 in Wick House, (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.

Semester: Summer 2007 - first 6-week term

Last Day for Withdrawing with a grade of "W": Thursday, June 14, 2007