

Math 119

Precalculus

Course Description

Mike O'Leary**Office:** 316K Stephens Hall**Office Phone:** 410-704-4757**Email:** moleary@towson.edu**Office Hours:** MW 3:30-4:30, F 2:00-3:00**Spring 2004****MW** 2:00-3:15, ST 222**F:** 1:00-1:50, ST 201**Section:** 004

Prerequisites: Two years algebra or DVMT 110, one year plane geometry, 1/2 year trigonometry.

Catalog Description: The concept of function, exponential, logarithmic, circular and trigonometric functions, systems of linear equations, vectors in two space, lines, conic sections and polar coordinates.

Learning Objectives:

- The student will understand functions and graphs, including the importance of elementary transformations of graphs and the use of graphing calculators.
- The student will understand how to write, understand, and solve linear and quadratic equations and inequalities, including those with complex solutions.
- The student will understand polynomial and rational functions, including techniques for finding zeros of polynomials, both exactly and approximately.
- The student will understand exponential and logarithmic functions, including their relationships to each other as well as their applications.
- The student will understand trigonometric functions, including their definitions and their applications. Students will be able to solve right triangles. Students will also be fluent with the basic trigonometric identities, including the Law of Sines and the Law of Cosines.
- The students will understand the analytic geometry of conic sections.

Academic Integrity: The nature of higher mathematics requires that students adhere to accepted standards of academic integrity. Violations of academic integrity include cheating, plagiarism, falsification and fabrication, complicity in academic dishonesty, personal misrepresentation and proxy, bribes, favors and threats. Cheating is a serious offense that will have grave consequences for your academic life.

Students who violate these standards will either fail the course outright or, at the instructor's discretion, may merely receive a zero on any assignment for which the student receives inappropriate assistance. Violations of these standards will be referred to the administration for possible additional action.

Instructional Material: The primary required text is *Precalculus: A Graphing Approach* by Barnett, Ziegler, and Byleen. A graphing calculator is required.

Methods of Instruction: We shall use lectures, class discussion, and group work.

Attendance: Attendance is expected; you should only miss a class for a compelling reason. If you do miss a class, you are responsible for any material that you miss, including any homework assignments given in that class.

Homework: The only way to learn mathematics is by doing problems, problems, and more problems.

Homework will be assigned on a regular basis, and will form a substantial portion of your final grade. Expect to spend a substantial amount of time studying and working on homework. The general rule is two to three hours outside class for each hour inside; this translates to about 8-12 hours of homework and personal study per week.

Quizzes: Occasional unannounced quizzes may be given. For purposes of determining the final grade, they shall be treated as a homework assignment.

Guidelines for Homework:

1. Late work will not be accepted without a compelling reason.
2. Assignments are required to be neat, clean, and paper-clipped or stapled.
3. Assignments must include the author's name, and a brief description of the assignment.
4. Students are allowed to discuss homework problems with their classmates, however all work that is turned in must be the student's own work.
5. Any assignment that does not meet these criteria may receive a deduction in score, or more generally will simply be rejected.

Midterms: There shall be three midterm examinations, tentatively scheduled for February 20, March 19, and April 23. Attendance is expected. Make-up exams shall only be given for compelling reasons; all excuses are subject to verification.

Final Exam: The Final Exam is scheduled for Wednesday, May 12 from 3:00 p.m.- 5:00 p.m. The final exam will not be rescheduled. Attendance is expected; a make-up exam will not be given without an extremely compelling reason. The final exam shall be comprehensive.

Final Grade: Final grades shall be determined by the following method:

Midterms	40%
Final	30%
Homework/Quizzes	30%

Note the weight of the final.

The last day to withdraw from the course with a grade of "W" is April 2.

Help: If you have difficulty completing a homework assignment, do not hesitate to ask for help, either from your friends, or from me. You are welcome to stop by my office, for whatever reason, and at whatever time, even if there are no office hours scheduled then. If you wish, you may also simply send an e-mail message.

Web Page: My web page at <http://www.towson.edu/~moleary> has an archive of all of the old exams that I have given while at Towson.