

**Missouri State University**  
**Department of Mathematics**  
**Course Syllabus**

**TITLE OF THE COURSE: Contemporary Mathematics**

**NUMBER OF THE COURSE: MTH 130**

**COURSE DESCRIPTION**

Prerequisites: "C" grade or better in MTH 102 or MTH 103, or appropriate placement score. This is a problem solving course. Topics will include: patterns, set theory, algebra applications, number theory, geometry, probability, statistics, and mathematics of finance. This course will not count toward a mathematics major or minor. This course may not be taken pass/not pass.

**PHILOSOPHY OF THE COURSE**

It is designed to provide students with mathematical experiences including problem solving and discovery of mathematical relationships.

**PURPOSE OF THE COURSE**

It is intended to satisfy the general education math requirement for degree seeking students, as well as prepare students for subsequent courses such as MTH 320 (Foundations of Mathematics for Teachers). It is also a degree requirement for elementary and middle school majors.

**OUTCOMES OF THE COURSE**

1. An enriched experience in developing problem solving strategies.
2. A broader view of mathematics, as well as a better understanding of the relation between various areas of mathematics.
3. An increasing understanding of valid, logical reasoning and its role in mathematics.
4. Enhanced ability to read, understand, and communicate new mathematical ideas.
5. More insight into the development of mathematics and its structure.
6. An appreciation for the aesthetic element of mathematics.

**OUTLINE OF THE COURSE**

Voting method (up to 4 days), apportionment (up to 5 days), the mathematics of money (up to 4 days), probability (up to 6 days), statistics (up to 6 days), paths and networks (up to 4 days), geometry (up to 4 days), number theory (up to 5 days), game theory/linear programming (up to 5 days).