MATH 108 - Survey of Mathematics in Art and Music

– SYLLABUS

Department of Mathematics

Millersville University

Description

Math 108 is a liberal arts course for students who will not be scheduling a technical/professional mathematics course. Explores topics in mathematics through the lens of the fine arts, which may include (but is not limited to) architecture, visual arts, music, and dance. Mathematical content covered may include geometry, transformations, patterns, algebra, sequences and series, permutations, number theory, and fractals.

This course may be taken for general education credit (G2 for non-math and non-science majors) . Only one of Math 100, 102, 107, and 108 may be taken for general education credit.

Prerequisites

Math 090 with a grade of C- or higher or math placement testing/evaluation before registration.

Course Objectives

By the conclusion of this course the successful student will be able to:

- Demonstrate competence with various undergraduate-level mathematical concepts and procedures.

- Demonstrate understanding of how mathematics can be applied to create a variety of art forms, which may include architecture, visual arts, music, and dance.

- Use mathematics to analyze a variety of art forms.

- Make connections among mathematics topics that occur across the arts.

Assessment

Assessment of student achievement of the course objectives will vary from one instructor to another. Typical criteria for evaluating students performance may include: Attendance, Participation, Journals, a Math Autobiography, Reading and Homework Assignments, and Exams.

Use of Technology

The student is required to access required readings online, and may need to print out certain pages. Use of a scientific calculator may also be required.

Topics

The specific topics covered may vary by semester. This course explores topics in mathematics through the lens of the fine arts, which may include (but is not limited to) architecture, visual arts, music, and dance. Mathematical content covered may include geometry, transformations, patterns, algebra, sequences and series, permutations, number theory, and fractals.