MASTER COURSE OUTLINE
Prepared By: Johanna Doty, David Mayhugh, Tyler Wallace Date: 11/10/20

COURSE TITLE: Math for Elem Educ 2

GENERAL COURSE INFORMATION

Dept.: MATH&	Course Num: 132	(Formerly:)
CIP Code: 13.1311	Intent Code:	Program Code:
Credits: 5		
Total Contact Hrs Per Qtr.: 55		
Lecture Hrs: 55	Lab Hrs:	Other Hrs:
Distribution Designation: SQR		

COURSE DESCRIPTION (as it will appear in the catalog)
Covers the mathematics elementary teachers are responsible for teaching at K-8 levels, including polyhedra, polygons, symmetry, tessellations, size changes, curves, curved surfaces, transformations, length, angles, area and surface area, volume, measure formulas, simulating probablistic situations; sampling; and organizing and interpreting data with one and two variables.

PREREQUISITES: MATH 098 or placement. Can be taken concurrently with or before MATH& 131.

TEXTBOOK GUIDELINES: Appropriate college level text or handouts and supplemental materials as chosen by the instructor.

COURSE LEARNING OUTCOMES
Upon successful completion of the course, students should be able to demonstrate the following knowledge or skills:

1. A basic understanding of two-dimensional geometric shapes
2. Knowledge of angles and quadrilaterals
3. The ability to calculate size throughout two-dimensional geometry
4. Knowledge of geometric patterns and transformations
5. Comprehensive understanding of polyhedra and polygons
6. Concepts and theories related to measurement
7. Knowledge of three-dimensional geometry – volume and surface area
8. The ability to use coordinate geometry in relation to algebra
9. The relationship between algebra and geometry
10. Knowledge of probability and simulated trials
11. The ability to sample, organize, analyze and interpret data

INSTITUTIONAL OUTCOMES

IO2 Quantitative Reasoning: Students will be able to reason mathematically

IO3 Human Relations/Workplace Skills: Students will be able to demonstrate teamwork, ethics, appropriate safety awareness and/or workplace specific skills

COURSE CONTENT OUTLINE

1. Basic Two-Dimensional Geometry
2. Angles and Shapes
3. Perimeter and Area
4. Rotations and Reflections, Translations and Tessellations
5. Three-Dimensional Geometry and Polygons
6. Polyhedra and Special Polygons
7. Surface Area and Volume
8. Measurement in Two and Three Dimensions
9. Coordinate Geometry
10. Linear Graphing on a Geometric Plane
11. Probability
12. Statistics

DEPARTMENTAL GUIDELINES *(optional)*

At least 70% of the grade will be based on quantifiable work such as exams, homework, research project and quizzes. Up to 30% of the grade may be based, attendance, projects, journal work, etc. at the instructor's discretion. Grading procedures must be clearly stated in the class syllabus.

DIVISION CHAIR APPROVAL

12/9/20

DATE