8/30/2022	DATE	MSD	DIVISION
☑	REQUIRED COURSE	☐	NEW COURSE
☑	ELECTIVE COURSE	☑	REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	MAT-218		TITLE: *(30 Characters Max)*		Mathematics for Elementary Teachers II						
SEM CR HRS:	3	Lecture:	3	Lab:	0					ECH:	3
Course Level:	☑ Gen Ed / IAI ☐ Baccalaureate /Non-IAI	☐ Career/Technical ☐ Dev Ed/ Not in Degree Audit		Clinical Practicum:	0	Work-based Learning	0	WBL ECH:	0		
COURSE PCS #	11 - 13.1202		IAI Code	M1 903		Contact Hours (Minutes Per Week)					
Repeatable (Y/N):	N	Pass/Fail (Y/N):	N	Variable Credit (Y/N):		Min:		Max:		16 Wks 150	8 Wks 300
Prerequisites:	MAT-118 with a grade of "C" or higher										
Catalog Description: (40 Word Limit)	The study of the concepts and theory of measurement and geometry via the problem-solving approach. Designed for Elementary Education majors. Counts as general education requirement for elementary education majors when taken in sequence with MAT-118. Calculator Usage Defined.										

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
Introductory Geometry	2			
Geometric Shapes	7			
Lines, Angles, and Polygons	8			
Measurement	3			
Length, Area, Surface Area and Volume	5			
Congruence and Similarity of Triangles	4			
Euclidean Constructions	6			
Geometry Using Coordinates	5			
Geometry using Transformations	5			
TOTAL	45	0	0	0

EVALUATION							
QUIZZES	☑	EXAMS	☑	ORAL PRES	☐	PAPERS	☐
LAB WORK	☐	PROJECTS	☑	COMP FINAL	☑	OTHER	☐

COURSE MATERIALS		
TITLE:	Problem Solving Appr Math Elem School Teachers	
AUTHOR:	Billste	
PUBLISHER:	Prentice Hall	
VOLUME/EDITION/URL:	13th	
COPYRIGHT DATE:	2020	

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		The student will be able to:
Introductory Geometry	2	Recognize And appreciate geometry in their world.
Properties of Geometric Shapes	3	
Lines and Angles	3	Identify, describe, compare, and classify geometric figures.
Regular Polygons and Tessellations	5	Demonstrate and apply geometric properties and relationships.
Describing 3-Dimensional Shapes	4	
Measurement with Nonstandard and Standard Units	3	
Length and Area	2	Estimate, make and Apply measurements to describe and compare phenomena, develop formulas and procedures for determining measures to solve problems with and without a calculator
Surface Area	2	
Volume	1	Demonstrate and apply geometric properties and relationships; represent and solve problems using geometric models.
Congruence of Triangles		

Similarity of Triangles	3	Demonstrate definitions of congruency and similarity. Apply concepts to solve problems using triangles and other similar figures
Euclidean Constructions	3	
Geometric Problem Solving using Triangle Congruence and Similarity	4	Develop skills to construct geometric figures using only a compass and straightedge.
Geometric Problem Solving Using Coordinates	4	Demonstrate plane geometry and graph geometric figures using coordinates.
Introduction to Transformations	2	
Congruence and Similarity Using Transformations	2	Develop skills to solve geometric problems using coordinates and equations
Geometric Problem Solving Using Transformations	2	Define translations, rotations, reflections, glide reflections, and size transformations. Demonstrate
	45	

COURSE OUTCOMES*	At the successful completion of this course, students will be able to:
	Demonstrate/Apply symbols and terminology common to Geometry
	Demonstrate relationships of angles and sides in polygon shapes with an emphasis on quadrilaterals.
	Apply and Demonstrate common measurement units and techniques. The student will be able to convert between the metric and English measuring
	Apply formulas to find surface area and volume of prisms, pyramids, cylinders, cones, and spheres

** Course Outcomes will be Applyd in the Assessment Software for Outcomes Assessment. Limit to 3 - 5.*