

8/30/2022 DATE

 REQUIRED COURSE
 ELECTIVE COURSE

 MSD _____ DIVISION _____
 NEW COURSE
 REVISION

Lake Land College

Course Information Form

COURSE NUMBER:		MAT-115		TITLE: (30 Characters Max)		General Education Pathway					
SEM CR HRS:	4	Lecture:		3	Lab:	2	ECH:		5		
Course Level:	<input type="checkbox"/> Gen Ed / IAI		<input type="checkbox"/> Career/Technical		Clinical Practicum:	0	Work-based Learning	0	WBL ECH:	0	
	<input checked="" type="checkbox"/> Baccalaureate /Non-IAI		<input type="checkbox"/> Dev Ed/ Not in Degree Audit								
COURSE PCS #	11-27.0301			IAI Code		M1904	Contact Hours (Minutes Per Week)				
Repeatable (Y/N):	N	Pass/Fail (Y/N):	N	Variable Credit (Y/N):	N	Min:	Max:	16 Wks	250	8 Wks	500
Prerequisites:	Placement by assessment. QL/Stats Transitional Math (TM002). Also one year of high school geometry or MAT-009.										
Catalog Description: (40 Word Limit)	Survey of mathematical topics including set theory, consumer/financial math, measurement and statistics. Problem solving projects involving detailed written solutions required. Calculators and computers will be used. Intended for students that don't assess directly into MAT-116. Includes supplemental instruction lab.										

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
Set Theory	10	8		
Consumer and Financial Math	10	8		
Measurement	10	6		
Statistics	10	7		
Tests	5	1		
TOTAL	45	30	0	0

EVALUATION

QUIZZES	<input checked="" type="checkbox"/>	EXAMS	<input checked="" type="checkbox"/>	ORAL PRES	<input type="checkbox"/>	PAPERS	<input checked="" type="checkbox"/>
LAB WORK	<input type="checkbox"/>	PROJECTS	<input checked="" type="checkbox"/>	COMP FINAL	<input checked="" type="checkbox"/>	OTHER	<input type="checkbox"/>

COURSE MATERIALS

TITLE:	Math in General Education
AUTHOR:	Sarah Harley
PUBLISHER:	Lake Land College
VOLUME/EDITION/URL:	1st Ed
COPYRIGHT DATE:	2022

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		<i>The student will be able to:</i>
Set Theory/Logic		Illustrate real life problems by using various techniques including Venn diagrams and will demonstrate basic set interaction
Basic Concepts of Sets Subsets	5	
Venn Diagrams and Set Operations	5	
Set Operations and Venn Diagrams with Three Sets	5	
Survey Problems	3	
Consumer and Financial Math		Recognize problems involving financial formulas and will be able to apply these formulas appropriately.
Percent, Sales Tax, and Income Tax	3	Create an amortization schedule manually and using a spreadsheet and will understand each entry
Simple Interest	4	
Compound Interest	5	
Annuities, Stocks, and Bonds	3	
Installment Loans, Amortization, and Credit Cards	3	
Measurement and Geometry		Identify real life problems whose solutions requires conversion of units within a single system or across systems.
Measure Length, convert units	2	Apply multiple conversions throughout a single problem.
Apply length concepts to geometry	3	Obtain the perimeter, area and volume for basic and composite shapes by applying geometric formulas

Measure Area, convert units	3	
Apply area concepts to Geometry	3	
Measure Volume/Weight convert units	3	
Apply Volume and weight concepts to Geometry	3	
Statistics		Collect organize, represent and interpret statistical data by means of models, graphs for real life problems.
Sampling, Frequency Distributions, and Graphs	4	
Measures of Central Tendency	3	
Measures of Dispersion	3	
Normal Distribution	3	
Problem Solving with the Normal Distribution	3	
Tests and Quizzes	6	
	75	

COURSE OUTCOMES*	At the successful completion of this course, students will be able to:
	Construct Venn Diagrams and perform operations with sets.
	Calculate simple and compound interest and create an amortization schedule.
	Convert measurements of multiple dimensions within the English and Metric measurement system and between the two measurement systems.
	Apply formulas for linear measurement, area, and volume.
	Calculate measures of central tendency and measures of dispersion.
	Calculate z-scores and use them to solve problems involving the normal distribution.

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