

# COURSE SYLLABUS

<b>Course Title:</b>	Intermediate Algebra For Liberal Arts		<b>Date submitted:</b>	11/8/18 (AAC: 18-72)	
<b>Department:</b>	STEAM				
<b>Curriculum:</b>	Mathematics				
<b>Course Descriptors:</b> Make certain that the course descriptors are consistent with college and Board of Trustees policies, and the current course numbering system.	<b>Course Code:</b> (eg. ACC 101)	MAT*137L	<b>Prerequisites:</b>		
	<b>Course Type:</b>	D/L	C- or better in Pre-Algebra & Elementary Algebra (MAT*085), Introductory Algebra (MAT*094), or Elementary Algebra Foundations (MAT*095) or appropriate placement test or SAT score		
	A: Clinical B: Lab D: Distance Learning I: Individual/Independent L: Lecture N: Internship M: Seminar P: Practicum U: Studio X: Combined Lecture/Lab Y: Combined Lecture/ Clinical/Lab Z: Combined Lecture/Studio	<b>Elective Type:</b>	G/LA/M		
	AH: Art History E: English FA: Fine Arts G: General HI: History HU: Humanities LA: Liberal Arts FL: Foreign Language M: Math S: Science SS: Social Science	<b>Credit Hours:</b>	3	<b>Corequisites:</b>	
	<b>Developmental:</b> (yes/no)	No	none		
	Lecture:	3			
	Clinical:	0			
	Lab:	0			
	Studio:	0			
	<b>Contact Hours:</b>	Other:	0		
	TOTAL:	3	<b>Other Requirements:</b>		
	<b>Class Maximum:</b>	30	none		
	<b>Semesters Offered:</b>	F/Sp/Su			
<b>Catalog Course Description:</b>	This is a credit level math course intended for students in NON-STEM programs of study. It is ONLY a pre-requisite for Elementary Statistics with Computer Applications (MAT*165), Finite Math (MAT*152), Number Systems (MAT*141), and Math for the Liberal Arts (MAT*146). This course is a further study of algebra and mathematical modeling of functions and relations represented by tables, graphs, words, and symbols. Topics covered will include Linear, Quadratic and Exponential Functions with an emphasis on modeling real-world applications. A student may only receive credit for one of the following courses: Intermediate Algebra (MAT*137), Intermediate Algebra for Liberal Arts (MAT*137L), or Elementary & Intermediate Algebra Combined (MAT*139).				
<b>Topical Outline:</b> List course content in outline format.	<ol style="list-style-type: none"> <li>1. Review of linear functions and modeling with linear functions</li> <li>2. Simple Factoring of polynomial expressions</li> <li>3. Operations on radical expressions and related applications</li> <li>4. Solving quadratic equations, graphing quadratic functions, modeling and related applications</li> <li>5. Graphing exponential functions, related applications</li> </ol>				
<b>Outcomes:</b>	Upon successful completion of this course, the student will be able to do the following:				

<p>Describe measurable skills or knowledge that students should be able to demonstrate as evidence that they have mastered the course content.</p>	<p><b>Linear Functions</b></p> <ol style="list-style-type: none"> <li>1) provide multiple representations (e.g., words, symbols, graphs, tables) of linear functions by hand and/or using technology</li> <li>2) determine identifying characteristics of linear functions</li> <li>3) model and solve real world applications with linear functions (e.g., car depreciation)</li> </ol> <p><b>Quadratic Functions and/or Expressions</b></p> <ol style="list-style-type: none"> <li>1) provide multiple representations of quadratic functions or expressions by hand and/or using technology</li> <li>2) determine identifying characteristics of quadratic functions or expressions (e.g., factors)</li> <li>3) evaluate quadratic functions or expressions</li> <li>4) solve quadratic equations algebraically and/or graphically</li> <li>5) solve real world applications involving quadratic equations and functions</li> </ol> <p><b>Exponential Functions and/or Expressions</b></p> <ol style="list-style-type: none"> <li>1) provide multiple representations (e.g., tables, graphs, symbols) of exponential functions or expressions by hand and/or using technology</li> <li>2) determine identifying characteristics of exponential functions or expressions</li> <li>3) evaluate exponential functions or expressions</li> <li>4) model and solve real-world applications with exponential functions</li> </ol> <p><b>Radical Functions and/or Expressions</b></p> <ol style="list-style-type: none"> <li>1) determine identifying characteristics of radical functions or expressions</li> <li>2) evaluate and simplify radical functions or expressions</li> <li>3) solve real world applications involving radical functions</li> </ol>
	<p><b>PROGRAM:</b> <i>does not apply</i></p>
	<p><b>GENERAL EDUCATION:</b> <i>(Numbering reflects General Education Outcomes as they appear in the college catalog)</i></p> <p>7. <b>Quantitative Reasoning</b> -Students will learn to recognize, understand, and use the quantitative elements they encounter in various aspects of their lives. Students will develop a habit of mind that uses quantitative skills to solve problems and make informed decisions.</p> <p><b>Demonstrates:</b> Interprets numerical information and applies sufficient laws of logic and mathematics to solve problems using numbers, symbols, graphs and/or descriptions.</p> <p><b>Does Not Demonstrate:</b> Misinterprets numerical information or insufficiently applies laws of logic and mathematics to solve problems using numbers, symbols, graphs and/or descriptions.</p>
<p><b>Evaluation:</b> List how the above outcomes will be assessed.</p>	<p><b>Assessment will be based on the following criteria:</b></p> <p>Quizzes Tests Other teacher-generated classroom assessments Departmental Final Exam</p>
<p><b>Instructional Resources:</b> List library (e.g. books, journals, on-line resources), technological (e.g. Smartboard, software), and other resources (e.g. equipment, supplies,</p>	<p><b>Required:</b> large amounts of board space Individual desks Instructor computer station Graphing calculator</p>

facilities) required and desired to teach this course.	<b>Desired:</b> None
<b>Textbook(s)</b>	<i>Algebra with Models. A Guided Inquiry Approach.</i> Santoro and Anton, current edition