

# West Los Angeles College

## SLO Addendum

Course Name and Number     MATH 118    

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Course Title     BASIC ELEMENTARY ALGEBRA II    

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### Course Objectives (as stated in the Course Outline of Record)

1. 6a. Solve systems of linear equations by graphing  
b. Solve systems of linear equations using algebraic methods  
c. Model and solve application problems using systems of two equations in two variables (including but not limited to rate-of-wind and water-current problems)  
d. Solve problems involving systems of linear functions
  
2. 7a. Add and subtract polynomials  
b. Multiply monomials and simplify powers of monomials  
c. Multiply polynomials, including special products  
d. Factor polynomials completely using common factors, grouping, and other techniques  
e. Divide polynomials  
f. Use scientific notation with positive and negative powers of ten  
g. Solve polynomial equations by factoring.  
h. Model and solve applications using polynomial equations and functions
  
3. 8a. Multiply, divide, and simplify rational expressions  
b. Find the LCM of two or more polynomials  
c. Add and subtract rational expressions  
d. Simplify complex rational expressions  
e. Solve equations containing fractions  
f. Set up and solve proportions in applied contexts including similar polygons  
g. Use rational equations and functions to model and solve applications such as uniform motion and work problemsg.
  
4. 9a. Simplify numerical and variable radical expressions  
b. Add, subtract, multiply and divide radical expressions  
c. Solve equations containing one or more radical expressions  
d. Model and solve problems using radical equations and functions

5. 10a. Solve quadratic equations by factoring, taking square roots, completing the square, and using the quadratic formula
- b. Graph a quadratic function
- c. Use quadratic equations and functions to model and solve application problems

## Math Program SLOs

1. Apply quantitative thinking processes using basic mathematical operations (addition, subtraction, multiplication, division) to solve common academic, workplace, and family problems. (Theme: Quantitative thinking; mathematical operations)
2. Analyze and interpret spatial and graphic data (schedules, maps, tables, graphs, and geometric figures). (Theme: spatial and graphic data).
3. Use mathematical tools essential for analyzing quantitative problems and for producing solutions. (Theme: mathematical tools)
4. Apply advanced mathematical concepts and tools (algebra, calculus) essential in upper division academic work and/or workplace tasks. (Theme: advanced mathematical operations—algebra, calculus)
5. Select appropriate math strategies for solving and handling application problems involving (for example) finance, science, economics, and family issues. (Theme: mathematical problem-solving)

### Course SLOs (From COR)

Solve problems involving uniform motion, business applications, work, and mixture problems

Use algebraic techniques to manipulate polynomials, rational expressions, and radical expressions to produce solutions to equations and inequalities

Use graphical techniques (coordinate geometry) and sequential strategies to analyze and solve problems involving uniform rates of change.

**NOTE: The Math Division needs to assess and probably revise these SLOs. They were assessed in a previous cycle (summer 2011) and those documents need to be reviewed.**

<p align="center"><b><u>Course SLO</u></b></p> <p>One sentence that describes a major piece of knowledge, skill, or ability that students can demonstrate by the end of the course</p> <p><i>Finish the sentence, "At end of the course, the successful student will be able to... "</i></p>	<p align="center"><b><u>Assessment Method</u></b></p> <p>Major assignment, project or test used to demonstrate or apply outcome</p> <p><i>Remember to have a mix of qualitative and quantitative assessment methods.</i></p>	<p align="center"><b><u>Criterion Level</u></b></p> <p>Reflects satisfactory performance on the SLO</p> <ul style="list-style-type: none"> <li>• <i>At least X percent of students achieve this course SLO.</i></li> <li>• <i>All students achieve at least the Y level on this SLO.</i></li> <li>• <i>At least X percent of students achieve the Y level on this course SLO.</i></li> </ul>
<p>1. Solve problems involving uniform motion, business applications, work, and mixture problems</p>	<p>Students will answer questions embedded on a final exam. A scantron scanner will be used to access the results for each of the relevant questions.</p>	<p>Each question will be answered correctly by 40 % of students.</p>
<p>2. Use algebraic techniques to manipulate polynomials, rational expressions, and radical expressions to produce solutions to equations and inequalities</p>	<p>Students will answer questions embedded on a final exam. A scantron scanner will be used to access the results for each of the relevant questions.</p>	<p>Each question will be answered correctly by 70 % of students.</p>
<p>3. Use graphical techniques (coordinate geometry) and sequential strategies to analyze and solve problems involving uniform rates of change.</p>	<p>Students will answer questions embedded on a final exam. A scantron scanner will be used to access the results for each of the relevant questions.</p>	<p>Each question will be answered correctly by 60 % of students.</p>
<p>4.</p>		

## Mapping to Program SLO and Institutional SLOs

Please indicate with an "X" in the appropriate boxes below, the Course SLO mapping to the corresponding Program and Institutional SLO(s).

Course SLO	Program SLO												Institutional SLO									
	1	2	3	4	5	6	7	8	9	10	11	12	A	B	C	D	E	F	G	H	I	
#1	X		X		x								x	x	x							
#2	X		X	x									x		x							
#3	X	x	X	x	x								x		x				x			
#4																						

## Course SLO Acknowledgements

The current draft of this document was prepared by Bonnie Blustein, based on the SLOs already in the Course Outline of Record.

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 Academic Senate President  
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 Date

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 VP of Academic Affairs (initial) and College President

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 Date