Basic Skills Mathematics

Courses with CID Designation

Course Name	CID #	CID Name	COR Effective Term
N/A			

Dual Listed Courses

Course Name	Dual Listed
N/A	

List of Active Courses offered or not offered in the last 3 years

	2012-2013			2013-2014			2014-2015		
Course Name	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring
MATH G009		X	X		X	X		X	X
MATH G010		X	X		X	X	X	X	X
MATH G030		X	X	X	X	X	X	X	X

PROGRAM REVIEW – SLO ASSESSMENTS
2015-16

Basic Skills Mathematics

**Assessment status reflects assessments between Fall 2013 through Summer 2015*

Assessment status for courses with active cSLOs

Course Name	# of cSLOs	# of cSLOs Assessed	Status
MATH G009	3	1	↔
MATH G010	4	4	↑
MATH G030	5	4	↔

↑ Fully assessed
↔ Partially assessed
↓ No assessment

Courses with cSLOs that still needs to be assessed

Course Name	cSLO #	cSLO
MATH G009	cSLO 1	Use dimensional analysis to solve problems involving dosage calculations.
MATH G009	cSLO 3	Use dimensional analysis to solve problems involving infusion times.
MATH G030	cSLO 3	Solve a quadratic equation using the quadratic formula.

Courses Assessed and their Action Plans

Course Name	cSLO #	Semester Assessed	Action Plans
MATH G009	cSLO 2	2014 - 2015 (Fall 2014)	The Instructor's comments regarding planned changes to improve student learning were: Continued class discussion and worked examples will improve student mastery of intravenous flow rate calculations.
MATH G009	cSLO 2	2014 - 2015 (Spring 2015)	I will have to develop a better approach to make nursing students more cognizant when specifying military time in this type of problem.
MATH G009	cSLO 2	2013 - 2014 (Spring 2014)	Continued class discussion and worked examples will improve student mastery of intravenous flow rate calculations.
MATH G010	cSLO 1	2014 - 2015 (Fall 2014)	The Fall 2014 Math G010 instructors offered different options for promoting success in this SLO, including: •Assessing this SLO on the 2nd part of the final, since it is one of the last topics covered in the semester. Have collaborative work in class focused on this SLO. Reorganization of the final exam in order to avoid testing fatigue. •Emphasize the importance of completing homework •Remind students to study class notes and read the textbook •Spend more time in class with simplification of radicals •Devote more class/lecture time to the Quadratic Formula
MATH G010	cSLO 2	2013 - 2014 (Fall 2013)	Continue to grade the SLO question on the student's worksheet.
MATH G010	cSLO 2	2013 - 2014 (Fall 2013)	More emphasis should be placed on recognizing when the technique of writing equivalent equations that result in an additive inverse should be employed, and practicing the skill of writing equivalent equations. Some lab time could be dedicated to practicing this skill.
MATH G010	cSLO 2	2013 - 2014 (Fall 2013)	As a result of the analysis of the data and student solutions, the instructor will strive to incorporate the following:(A) Classroom practice identifying when a system of equations has no solution and stressing that "0" does not necessarily mean "no solution."(B) Classroom practice in deciding which variable to eliminate, and what multiples of equations need to be found in order to process the elimination. It should be noted that compared to the last assessment by this instructor of the same SLO, very few students solved for only one variable. However, the other errors showed a lack of understanding of the nature of solutions to systems of linear equations.
MATH G010	cSLO 2	2013 - 2014 (Fall 2013)	From the comments provided by the instructors: Compared to previous assessments of the same SLO by one of the instructors, very few students committed a previous error of solving for only one variable. However, the other errors showed a lack of understanding of the nature of solutions to systems of linear equations. (Instructor #2)? More emphasis should be placed

Courses Assessed and their Action Plans

Course Name	cSLO #	Semester Assessed	Action Plans
			on recognizing when the technique of writing equivalent equations that result in an additive inverse should be employed, and practicing the skill of writing equivalent equations. Some lab time could be dedicated to practicing this skill.
MATH G010	cSLO 2	2013 - 2014 (Spring 2014)	As a result of assessment and analysis of data, to improve student learning, the following changes will be incorporated: 1) Further emphasis on the content or idea of the solution to a system of linear equations in two variables as being the intersection of the two lines.2) More classroom practice to allow for the proper process of solving a system of linear equations in two variables, specifically using the addition method.
MATH G010	cSLO 3	2014 - 2015 (Summer 2014)	I will focus more on SLO concepts and keep putting SLOs in my syllabus and introduce them to my students on the first day of the class. Let them know upon successful on the course, what they are able to do. Before each exam, I will introduce the SLOs that related to respective chapters.
MATH G010	cSLO 3	2013 - 2014 (Spring 2014)	Factoring out a -1 seems to be a consistent problem. I will work on this in class with extra practice before the exam covering this section, and will use a different set of problems to informally assess the same SLO (for my own benefit.)Since this is the first time students are exposed to rational expressions, implementing factoring, combining of algebraic expressions, and simplifying again, the result from this assessment is about what I would expect for the first time. I will assess again with different problems to see if students are able to correct their mistakes. As a remedial mathematics program, we should continue to assess this same SLO frequently.
MATH G010	cSLO 3	2013 - 2014 (Spring 2014)	I will focus more on SLO concepts and keep putting SLOs in my syllabus and introduce them to my students on the first day of the class. Let them know upon successful on the course, what they are able to do. Before each exam, I will introduce the SLOs that related to respective chapters.
MATH G010	cSLO 3	2013 - 2014 (Spring 2014)	In order to improve student learning concerning adding and simplifying rational expressions, I plan to prepare handouts/worksheets that will give students more practice with these types of problems. I plan to include activities during class time that will give students the opportunity to work in small groups on these types of problems.
MATH G010	cSLO 3	2013 - 2014 (Spring 2014)	Instructor plans to: 1.Get to know whether students difficulties are with the algebra or a pre-requisite skill and find ways to provide remediation.2.Review the various algebraic properties required to correctly solve rational expressions3.Provide practice worksheets. Continue to assess this SLO.
MATH G010	cSLO 3	2013 - 2014 (Spring 2014)	The majority of students who were not successful seemed to have trouble deciding what to do with the LCD once they found it. They were confused between the procedure for solving a rational equation and the procedure for simplifying a rational expression. Both of these were the subjects of worksheets completed during labs. It would probably be more effective to complete supervised practice mixing problems simplifying
MATH G010	cSLO 3	2013 - 2014 (Spring 2014)	The students have learned how to factor polynomials very well, but they don't want to do all the steps for adding and subtracting rational fractions, always they want to add or subtract numerator by numerator and denominator by denominator like multiplying fractions. They need to practice more and more on adding and subtracting rational expressions, then they can keep all steps in their mind to do.
MATH G010	cSLO 4	2013 - 2014 (Fall 2013)	In the future: Heavily stress that (A+B)2 does not A2+B2Work out more FOIL products containing radicals. Have the students work through more examples in class reinforcing the idea that they need to check their work when squaring an equation.
MATH G030	cSLO 1	2013 - 2014 (Fall 2013)	The many examples and activities designed to teach students how to solve equations containing rational expressions were successful in teaching them the general process. Any lack of success on the problem was primarily due to minor errors made by the students while solving the problem. I will continue to use activities in class to assist students learning and stress the importance of checking ones work after each step.
MATH G030	cSLO 1	2013 - 2014 (Spring 2014)	Continue to work numerous examples of rationalizing the denominator. Emphasize when to use the conjugate. Create a worksheet involving the different types of rationalization of denominators. Encourage stronger attendance to the SIA sessions.
MATH G030	cSLO 1	2013 - 2014 (Fall 2013)	Stress the difference of solving an equation and simplifying an expression. Make students solving quadratic equations in classroom through activities.

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MATH G030	cSLO 2	2014 - 2015 (Fall 2014)	Instructor 1: "I did use worksheets and group activities while teaching the sections on lines. I think that this produced decent results. I will continue to use these worksheets and activities. I noticed that the online supplement to the textbook does not have enough problems involving perpendicular lines. I will supplement their homework with a handout of my own containing more problems for them to practice. Instructor 2: "This should be determined by the new remedial math department." Instructor 3: "More examples of these types of problems will be done in class. Also, I need to emphasize more on solving for a variable (solving for y in this case). I will also need to explain more on how we cannot always assume that the coefficient of x is the slope. Students seemed to struggle with that concept in general." Instructor 4: "Seeing these results I will definitely try to give the students more worksheets and review problems that will focus on the earlier chapters including the SLO question." Instructor 5:"For next semester, I will review this topic with the students when we review for the final and hopefully this will refresh their memory on how to solve this question. Also I should probably make a larger emphasis on the way to isolate a single variable (i.e. isolate the y value in the equation 2x + 3y =4). If the students are able to do that easily then it may help them move easily between the standard form and the slope intercept form of a line." Instructor 6: "For next semester, I realize that a majority of students understand the concept of perpendicular lines, but I need to spend more time reviewing the multiplication and addition of fractions. I also realize that I need to use more graphical representations of perpendicular lines to help students visualize and understand why slopes are negative reciprocals of each other."
MATH G030	cSLO 4	2013 - 2014 (Spring 2014)	Continue to work numerous examples of graphing parabolas. Emphasize what constitutes a "complete" graph and get them to check their vertex. Create a worksheet for graphing parabolas. Encourage stronger attendance to the SIA sessions.
MATH G030	cSLO 4	2013 - 2014 (Spring 2014)	Instructor 1: Students were given a work sheet and performed better on a problem involving parabolas on their midterm. It is possible that many students forgot how to solve the problem and didn't study well before the Final Exam. I will emphasize the importance of studying and practicing for test. I will continue to use worksheets to help students learn the material. Instructor 2: Some class work to reinforce the idea of using –b/2a to find the x-coordinate and plugging into to the equation to find the y-coordinate. Also, there is a need to stress the importance of factoring in determining the x-intercepts. Instructor 3: A more in-depth discussion about the difference between horizontal and vertical parabolas. Also, some class work to reinforce the idea of using –b/2a to find one coordinate and plugging into the equation to find the other coordinate. Instructor 4: Continue to work numerous examples of graphing parabolas. Emphasize what constitutes a "complete" graph and get them to check their vertex. Create a worksheet for graphing parabolas. Encourage stronger attendance to the SIA sessions.
MATH G030	cSLO 5	2013 - 2014 (Spring 2014)	More practice with distribution over radicals through the use of in class activities.
MATH G030	cSLO 5	2013 - 2014 (Spring 2014)	I will work more problems in class on rationalizing the denominator and emphasize the difference of two squares as the reason for multiplying by the conjugate. Also, I need to emphasize factoring out a common term from an expression containing a radical.