

SLO Report Math & Science

Fall 2014

Unit Name	Course ID	Course Name	Course SLO Name	Course SLO	Criterion for Success	Reporting Period	Criterion for Success Met
Academic (MS) - Biological Sciences	BIOL-004A	General Principles and Cell Biology	2. Scientific method	Use the scientific method to: formulate hypotheses and related predictions; design tests, evaluate the data and conclude if they must reject or accept the hypothesis.	70% of students were expected to get all three questions correct.	2014-2015 (Fall 2014)	No
	BIOL-004B	Organismal Biology and Biodiversity	1. Form and Function	1. Compare and contrast the basic form and function of organisms within major taxonomic groups.	70% or more of students will correctly answer the questions.	2014-2015 (Fall 2014)	Yes
			5. Scientific method	5. Apply the scientific method, including the formulation of hypotheses, experimental design and prediction, analysis and presentation of data, and draw conclusions supported by data, to the study of plants and animals.	70% or more of students will score 2 or better on the assessment.	2014-2015 (Fall 2014)	Yes
BIOL-020	Human Biology	4. Biomedical testing	4. Examine the potential consequences and the bioethics of life decisions and biomedical testing based on a knowledge of human anatomy, physiology, heredity, and diseases.	100% of the students will answer these questions correctly.	2014-2015 (Fall 2014)	Yes	
BIOL-021	General Biology	1. Scientific Method	Apply the scientific method to examine biological phenomenon.	70% or more of students are able to answer the questions correctly.	2014-2015 (Fall 2014)	No	
		9. Natural Selection	Describe the mechanism of evolution by natural selection.	70% or more of students answer the questions correctly.	2014-2015 (Fall 2014)	Yes	
BIOL-061	Human Heredity	2. HGP	2. Analyze information and implication from the Human Genome Project including calculating the risks of inheritance of various genetic disorders.	70% or more of students will correctly answer the questions.	2014-2015 (Fall 2014)	No	
		3. Mutations	3. Assess the causes and results of mutations and the role of teratogens in birth defects.	70% or more of students will correctly answer the questions.	2014-2015 (Fall 2014)	No	

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	BIOL-063	Ecology	4. Succession	4.Compare primary and secondary ecological succession and be able to identify key examples of each	More than 70% of the students will be able to demonstrate a clear understanding of these concepts.	2014-2015 (Fall 2014)	Yes
	BIOL-071	Human Anatomy	3. Anatomical terminology	3. Use correct anatomical terminology in describing body structures and their functions.	More than 70% of the students will answer these questions correctly.	2014-2015 (Fall 2014)	Yes
	BIOL-072	Human Physiology	1. Homeostasis in human body	1. Explain the homeostatic mechanisms, controls, and specific functions of the systems of the human body.	More than 70% of the students will answer these questions correctly.	2014-2015 (Fall 2014)	Yes
	BIOL-074	General Microbiology	10. Applied microbial physiology	10. Describe microbial physiology in relation to water purification, antibiotic sensitivity, food microbiology, fermentation and genetic engineering.	70% or more of students correctly answer the questions.	2014-2015 (Fall 2014)	Yes
			2. Practical problem-solving	2. Apply scientific principles covered in the course to solving practical life-long problems in microbiology.	70% or greater of the students will correctly answer the questions.	2014-2015 (Fall 2014)	Yes
			6. Microbial transmission	6. Evaluate modes of microbial transmission and the means to reduce transmission.	More than 70% of students answer the question correctly.	2014-2015 (Fall 2014)	Yes
	ENVIR-010	Environmental Science	2. Biodiversity	2.Examine threats to biodiversity and implications to changing relevant laws and ecologically responsible practices.	More than 70% of the students will answer these questions correctly.	2014-2015 (Fall 2014)	Yes
			3. Toxicology	3.Integrate concepts of toxicology with solid and hazardous waste management	More than 70% of the students will answer these questions correctly.	2014-2015 (Fall 2014)	Yes
			6. Renewable energy	6.Evaluate environmental and socioeconomic implications of renewable and non-renewable energy sources	More than 70% of the students will answer these questions correctly.	2014-2015 (Fall 2014)	Yes
Academic (MS) -	CHEM-001A	General	SLO 4 - Quantum	Explain the structure of atoms	70% correct response.	2014-2015 (Fall	No

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Chemistry		Chemistry	Atom, Bonding and Properties (Active Sept 2016)	and periodic trends and properties using quantum and atomic theories, describe the underlying principles of covalent and ionic bond formation and molecular geometry, and correlate these principles to the reactivity and properties of liquids, solids, and solutions and their intermolecular interactions.		2014)	No
			SLO-1 nomenclature (Active Sept 2016)	Distinguish and describe ionic and covalent compounds; write and name chemical formulas.	70% correct response.	2014-2015 (Fall 2014)	Yes
	CHEM-001B	General Chemistry	Chem1B SLO(3,4)	Apply the concept of chemical equilibrium to aqueous systems such as acid-base, precipitation and complex ions reactions (3) Apply deductive reasoning to identify an unknown by qualitative analysis (3)		2014-2015 (Fall 2014)	No
	CHEM-012A	Organic Chemistry	organic compounds physical/chemical properties	SLO 1-Compare and contrast major classes of organic compounds in their physical and chemical properties by application of bonding theories, intermolecular forces, steric and electronic forces.	A pass is 70% correct	2014-2015 (Fall 2014)	Yes
	CHEM-012B	Organic Chemistry	Major organic reactions with kinetics, mechanism, 3-D stereochem products	SLO 2: Apply the 3-D nature of organic molecules to study major organic reactions for alcohols, ketones, aldehydes, carboxylic acids, and derivatives including descriptions of reaction kinetics, mechanism, and stereochemistry of products.	Meeting or exceeding national average	2014-2015 (Fall 2014)	Yes
			Physical and chemical properties of major	SLO 3: Compare and contrast major classes of organic compounds such as alcohols,	Class average meets or exceeds the average for the nation.	2014-2015 (Fall 2014)	Yes

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			classes of organic compounds	ketones, aldehydes, carboxylic acids, and derivatives in their physical and chemical properties by application of bonding theories, intermolecular forces, steric, and electronic forces.	(Individual values for each question are not known but the overall average will be taken of all the pertinent problems and compare it to the success rate of 56.7% correct which is the overall percentage of correct answers of raw data.		Yes
	CHEM-015	Fundamentals of Chemistry	SLO-1 Laboratory Safety	SLO-1: Apply safety rules learned in lab to safely conduct lab operations and present laboratory data using graphing and precision of data with simple statistics.	70% of students must provide a correct response.	2014-2015 (Fall 2014)	No
			SLO-4 Chemical Stoichiometry	SLO-4: Explain the concepts of chemical stoichiometry at both the macroscopic and particulate level while applying these concepts to solving chemical reaction problems from real-world information and predicting products of simple chemical reaction types.	At a minimum 70% of students must provide a correct response.	2014-2015 (Fall 2014)	Yes
			SLO-5: Behavior of gases	Explain gas behavior using macroscopic properties and microscopic molecular dynamics and solve problems using the gas laws.	70% of student must provide a correct response.	2014-2015 (Fall 2014)	No
	CHEM-032A	Intro to General, Organic, & Biological Chemistry	SLO 2 (2016)	Identify, name, and classify elements and compounds and differentiate between ionic and covalent compounds and write their chemical formula and names.	A 70% pass rate is considered successful.	2014-2015 (Fall 2014)	Yes
Academic (MS) - Mathematics	MATH-013	Intermediate Algebra	CSLO1-representations	Find the different representations of relations, functions, including inverses, composite functions, and identifying their domain and range.	70% correct	2014-2015 (Fall 2014)	No

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			CSLO2-solving	Solve linear systems of equations in three variables, absolute value equations and inequalities, and solve application problems	70% correct	2014-2015 (Fall 2014)	No
			CSLO3-expressions	Evaluate and simplify quadratic, radical, exponential, and logarithmic expressions	70% correct	2014-2015 (Fall 2014)	No
			CSLO4-graphing functions & their applications	Graph linear, quadratic, exponential, and logarithmic functions, and solve their related equations and application problems	70% correct	2014-2015 (Fall 2014)	No
			CSLO5-seq & series	Use sequences and series in everyday life, e.g., statistics and financial applications	70% correct	2014-2015 (Fall 2014)	No
	MATH-014	Geometry	CSLO1	Prove the validity or fallacy of geometric conjectures.		2014-2015 (Fall 2014)	No
			CSLO2	Prove triangles congruent using the standard SAS (side, angle, side), ASA (angle, side, angle), SSS (side, side, side) relationships.		2014-2015 (Fall 2014)	Yes
			CSLO3	Solve application problems involving angles, polygons, parallel lines, circles, solids, perimeters, areas, or volumes.		2014-2015 (Fall 2014)	No
			CSLO4	Apply the basic properties of ratios and proportions to solve problems involving similar triangles or similar polygons.		2014-2015 (Fall 2014)	No
	MATH-021	Precalculus Algebra	Binomial Theorem	4.Apply the Binomial Theorem to expand powers of binomials and solve problems from different sciences.	70% of students answer each question correctly	2014-2015 (Fall 2014)	Yes
			Construct Functions	2.Construct functions and their graphs, including one-to-one, composite, and inverses of rational and exponential functions.	70% or higher is a success, and below requires improvement to lead to student success for that particular SLO.	2014-2015 (Fall 2014)	No
			Technology use	3.Use a graphing calculator to solve real life applications of polynomial, logarithmic, exponential, and rational	70% of students answer each question correctly	2014-2015 (Fall 2014)	Yes

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				functions that involve arduous numerical calculations			Yes
	MATH-025	Precalculus Algebra and Trigonometry	Construct Functions	2. Construct functions and their graphs, including one-to-one, composite, and inverses of rational, trigonometric, and exponential functions.	70% of the students respond the question correctly	2014-2015 (Fall 2014)	No
			Mathematical Modeling	1. Build and solve mathematical models that involve the use of equations and inequalities of the first, second, and higher degrees.	70% of the students respond the question correctly	2014-2015 (Fall 2014)	No
	MATH-051	Mathematics for General Education	CSLO 2	Calculate probabilities using the multiplication principle, permutations, combinations, and the concepts of conditional probability.	60%	2014-2015 (Fall 2014)	Yes
			CSLO 3	Organize and interpret data using appropriate technology into statistical graphs.	60%	2014-2015 (Fall 2014)	Yes
	MATH-052	Mathematics for Elementary Education	algorithms	Evaluate the equivalence of numeric algorithms and explain the advantages and disadvantages of equivalent algorithms in different circumstances.	70% should show mastery	2014-2015 (Fall 2014)	Yes
			divisibility and number theory	Analyze algorithms from number theory to determine divisibility in a variety of settings, such as different base systems and modular arithmetic.	70% should answer the question correctly	2014-2015 (Fall 2014)	Yes
			LCM and GCD	Analyze the structure of least common multiples and greatest common divisors and their role in standard algorithms.	70% should answer this correctly	2014-2015 (Fall 2014)	Yes
			Number Systems	Compare numeration systems, including their historical development, with attention to base numeration systems, exponents, scientific notation, and place values.	70% mastery	2014-2015 (Fall 2014)	Yes

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			Problem Solving	Analyze multiple approaches to solving problems from elementary and advanced levels of mathematics, using concepts and tools from sets, functions, and logic.	70%	2014-2015 (Fall 2014)	Yes
			Rational Decimals and Ratio representations	Explain the concept of rational numbers, using both ratio and decimal representations; analyze the arithmetic algorithms for these two representations; and justify their equivalence.	70% should show mastery	2014-2015 (Fall 2014)	Yes
			Rational numbers	Explain the concept of rational numbers, using both ratio and decimal representations; analyze the arithmetic algorithms for these two representations; and justify their equivalence..	70% of the students should get this problem correct.	2014-2015 (Fall 2014)	Yes
	MATH-061	Finite Mathematics	Finance	3. Model and solve business applications involving simple and compound interest, and present and future value of an annuity.	70% or higher is a success, and below requires improvement to lead to student success for that particular SLO.	2014-2015 (Fall 2014)	Yes
			Linear Programming	2. Formulate and solve linear programming problems, utilizing both graphical and simplex algorithm methods and appropriate technology.	70% or higher is a success, and below requires improvement to lead to student success for that particular SLO.	2014-2015 (Fall 2014)	Yes
			Matrix Algebra	1. Perform operations on matrices and utilize matrices to solve systems of linear equations	70% or higher is a success, and below requires improvement to lead to student success for that particular SLO.	2014-2015 (Fall 2014)	Yes
			Probability	4. Use the multiplication principle, permutations, combinations, Bayes' theorem, and the concepts of conditional probability and independent events to compute probabilities.	70% or higher is a success, and below requires improvement to lead to student success for that particular SLO.	2014-2015 (Fall 2014)	No
	MATH-062	Calculus for Business and Social Science	Applications of Derivatives	3. Apply the theory of derivatives to the graphing of functions, optimization	70% correct	2014-2015 (Fall 2014)	Yes

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				problems involving revenue, cost, profit, supply, and demand.			Yes
			Basic Mathematical Information	6. Analyze, represent, and evaluate basic mathematical information numerically, graphically, symbolically, and verbally.	70% should answer correctly.	2014-2015 (Fall 2014)	No
			Derivative of a Function	2. Interpret the derivative of a function as an instantaneous rate of change, as it relates to the concepts of marginal propensity to consume and marginal propensity to save.	70% correct	2014-2015 (Fall 2014)	No
			Limits and Continuity	1. Calculate limits of various mathematical functions at given points and determine continuity.	The percent of possible points earned on this question should be 70% or higher.	2014-2015 (Fall 2014)	Yes
			Method of Lagrange Multipliers	5. Identify critical points for a function of several variables subject to constraints by applying the method of Lagrange multipliers.	70% of the students should answer this correctly.	2014-2015 (Fall 2014)	No
			Riemann Sums	4. Use sigma notation and Riemann sums to find elementary definite integrals.	70% of the students should answer correctly	2014-2015 (Fall 2014)	No
			Riemann Sums	4. Use sigma notation and Riemann sums to find elementary definite integrals.	70% of the students should answer correctly	2014-2015 (Fall 2014)	Yes
	MATH-063	Elementary Statistics	SLO 2 Calculate Probabilities	Calculate probabilities including basic, binomial, and normal distributions.	The assessment test is a multiple choice question, so selecting the correct answer is the criterial for success for the question. If over 50% of the students get the correct answer, we will find that successful currently. Perhaps we'll raise that bar in the future.	2014-2015 (Fall 2014)	Yes
			SLO 3 Use confidence Intervals	Use confidence intervals for population means and proportions for one and two populations, and calculate	The assessment test is a multiple choice question, so selecting the correct answer is the criterial for success for the	2014-2015 (Fall 2014)	Yes

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				sample sizes required for various confidence levels.	question. If over 50% of the students get the correct answer, we will find that successful currently. Perhaps we'll raise that bar in the future.		Yes
			SLO 4 Hypothesis Testing	Conduct hypothesis tests of a population means and proportions for one and two populations.	The assessment test is a multiple choice question, so selecting the correct answer is the criterial for success for the question. If over 50% of the students get the correct answer, we will find that successful currently. Perhaps we'll raise that bar in the future.	2014-2015 (Fall 2014)	Yes
			SLO 5 Regression	Plot scatter diagrams of real life data, perform linear regression and correlation on paired data to analyze such data, predict values of a dependent variable from the regression equation, and determine whether the correlation is sufficient to make the regression equation a useful predictor.	The assessment test is a multiple choice question, so selecting the correct answer is the criterial for success for the question. If over 50% of the students get the correct answer, we will find that successful currently. Perhaps we'll raise that bar in the future.	2014-2015 (Fall 2014)	Yes
			SLO 6 Contingency Tables	Test sample real life data for independence and homogeneity in two-way tables.	The assessment test is a multiple choice question, so selecting the correct answer is the criterial for success for the question. If over 50% of the students get the correct answer, we will find that successful currently. Perhaps we'll raise that bar in the future.	2014-2015 (Fall 2014)	Yes
			SLO1 Sample Statistics	Analyze raw data from sociology, law medicine, politics, business, and other sciences using sample statistics and graphs.	The assessment test is a multiple choice question, so selecting the correct answer is the criterial for success for the question. If over 50% of the students get the correct	2014-2015 (Fall 2014)	Yes

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					answer, we will find that successful currently. Perhaps we'll raise that bar in the future.		Yes
	MATH-071	Calculus I with Analytic Geometry	SLO 3: Limits Using The Limit Theorems	Find the limit of a function by using the limit theorems.	70% of students answering correctly, or correctly except for error which do not involve the properties of limits	2014-2015 (Fall 2014)	No
	MATH-072	Calculus II with Analytic Geometry	CSLO 2	Use appropriate integrals and differential equations to model applications such as volumes, areas, and population dynamics.	70% of students are successful	2014-2015 (Fall 2014)	Yes
	MATH-073	Multivariable Calculus	New SLO 1 Vectors	Perform vector operations such as the dot and cross products to obtain the equations of lines, planes, and other space curves; describe cylindrical and quadric surfaces, compute arc lengths; and solve application problems such as motion in space, and torque problems.	70% correct	2014-2015 (Fall 2014)	No
			New SLO 2 Partial Differentiation	Use partial derivatives, implicit differentiation, chain rule, directional derivatives, Lagrange multipliers, and the gradient vector to find local maximum and minimum values or absolute maxima and minima in a given region for functions of several variables and solve optimization problems with one or more constraints.	70% correct	2014-2015 (Fall 2014)	Yes
			New SLO 3 Multiple Integration	Set up and evaluate double integrals in Cartesian and Polar coordinates and triple integrals in Cartesian, cylindrical, or spherical coordinates to determine volumes, surface areas, centers of mass, expectation values using joint probability	70% correct.	2014-2015 (Fall 2014)	Yes

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				distributions.			Yes
			New SLO 4 Vector Calculus	Compute differential operations on vector fields, such as the curl and divergence, and evaluate line and surface integrals in the applications of Stokes', Green's and Gauss' theorems to establish path and shape independence for conservative vector fields.	70% correct	2014-2015 (Fall 2014)	No
	MATH-078	Differential Equations	Applications of First Order Differential Equations	4. Apply first order equations to problems in dynamics of population growth, radioactive decay, Newton's law of heating, and mixture problems.	Success would be demonstrated by the students earning 70% or more of the possible points on this question.	2014-2015 (Fall 2014)	Yes
			First Order Differential Equations	3. Identify the type, and select the appropriate solution method to solve first order ordinary differential equations, such as separable, linear, and exact equations.	70% correct.	2014-2015 (Fall 2014)	Yes
			Laplace Transforms	9. Use Laplace Transforms to solve initial value problems.	Success would be demonstrated by the students earning 70% or more of the possible points on this question.	2014-2015 (Fall 2014)	Yes
			Solution of a Differential Equation	1. Determine the type of and recognize a solution for a given differential equation.		2014-2015 (Fall 2014)	Yes
	MATH-079	Linear Algebra	New SLO 1 Solve a System of Linear Equations	Utilize matrix and determinant theory to find the solutions for a system of linear equations.	Students achieve at least 70% of the possible points for this question.	2014-2015 (Fall 2014)	Yes
			New SLO 2 Linear Independence	Apply the concepts of linear independence and span to solve related problems.	Students achieve at least 70% of the possible points for this question.	2014-2015 (Fall 2014)	Yes
			New SLO 3 Basis and Dimension	Find bases and dimensions of vector spaces including the row space, column space, and null space associated with a matrix.	70% correctly answering the problem	2014-2015 (Fall 2014)	Yes
			New SLO 4 Linear	Identify a matrix	70% passing	2014-2015 (Fall 2014)	No

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			Transformation	representation and determine the kernel and range of a linear transformation.		2014)	No
			New SLO 5 Eigenvalues and Eigenvectors	Determine eigenvalues and eigenvectors of a square matrix, and when possible, use them to diagonalize the matrix.	70% correct	2014-2015 (Fall 2014)	Yes
	MATH-111	Elementary Algebra	CSLO1-operations	Perform operations on real numbers using properties of real numbers and appropriate symbols.	70% correct	2014-2015 (Fall 2014)	Yes
			CSLO2-expressions	Simplify and evaluate algebraic expressions, including exponential, polynomial, and rational expressions.	70% correct	2014-2015 (Fall 2014)	No
			CSLO3-lines (CSLO4 new)	Find the equation of a line, graph it, and determine whether two lines are parallel or perpendicular	70% correct	2014-2015 (Fall 2014)	No
			CSLO4-solving (CSLO3 new)	Solve linear, quadratic, and rational equations and inequalities in one variable, and represent the solution set of the linear inequalities on the number line using interval notation.	70% correct	2014-2015 (Fall 2014)	No
			CSLO5-solving system	Solve systems of linear equations in two variables by graphing, substitution, and addition methods.	70% correct	2014-2015 (Fall 2014)	No
			CSLO6-applications	Solve application problems using quadratic, rational equations, and systems of linear equations	70% correct	2014-2015 (Fall 2014)	No
	MATH-311	Pre-Algebra	1.	Demonstrate mastery of arithmetic operations on integers, fractions, and decimals	70 % correctly answering the problem	2014-2015 (Fall 2014)	Yes
			2.	Evaluate and simplify Algebraic expressions containing exponents and	70% correctly answer the question	2014-2015 (Fall 2014)	Yes

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				square roots			Yes
			3.	Solve simple equations using the addition and multiplication properties of equality	70% correctly answer the question	2014-2015 (Fall 2014)	Yes
			4.	Demonstrate the ability to factor numbers into primes and to convert numbers between standard notation and scientific notation	70% of the students should correctly answer the question	2014-2015 (Fall 2014)	No
			5.	Apply critical thinking skills to solve applications involving areas, perimeters, percentages, ratios or proportions	70% correctly answer the question	2014-2015 (Fall 2014)	No
Academic (MS) - Physical Sciences	ASTRO-010	Introduction to Astronomy	Astro SLO 2	2. Analyze astronomic processes and use evidence, sound reasoning, and the scientific method to analyze astronomic problems	We expect 75% of students to answer these questions correctly.	2014-2015 (Fall 2014)	No
	ASTRO-010L	Introductory Astronomy Lab	SLO Astronomy Lab 03	Describe recent NASA-related missions and explain how they are working to elucidate the characteristics of planetary systems outside of our own.	We expect 75% of students to answer these questions correctly.	2014-2015 (Fall 2014)	No
			SLO Astronomy Lab 04	Explain the causes of major physical and chemical differences	We expect 75% of students to answer these questions correctly.	2014-2015 (Fall 2014)	Yes
	GEOL-010	Physical Geology	Geo SLO 2	Examine geologic processes to analyze geologic problems using the scientific method.	We expect 75% of students to answer these questions correctly.	2014-2015 (Fall 2014)	No
	GEOL-010L	Physical Geology Laboratory	Geo Lab SLO 2	Apply the scientific method to analyze geologic problems about the Earth, including identifying and evaluating minerals, igneous rocks, sedimentary rocks and metamorphic rocks.	We expect 75% of students to answer these questions correctly.	2014-2015 (Fall 2014)	No
	OCEAN-010	Descriptive Oceanography	Ocean SLO 2	2. Use evidence and critical thinking skills to analyze the oceanographic processes and	We expect 75% of students to answer these questions correctly.	2014-2015 (Fall 2014)	No

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				to assess oceanographic problems.			No
Academic (MS) - Physics	PHYS-002A	General Physics	1. Vector Addition	1. Use vector addition to find the net force on a system and compute the motion of the system using the calculated net force	70% or more of the students should give a correct answer	2014-2015 (Fall 2014)	No
			7. Generalizations	7. Formulate generalizations from specific observations	70% or Better	2014-2015 (Fall 2014)	No
	PHYS-002B	General Physics	Circuits	#3 Measure and analyze the relationships among circuit components in DC and AC circuit.	70% of the students score at or above 70%.	2014-2015 (Fall 2014)	No
			Electricity and Magnetism problem Solving	#2 Apply general principles of electricity and magnetism to solve algebra-based physics	If at least 70% of the students score at 70% (C) or higher an SLO is deemed to have been taught adequately.	2014-2015 (Fall 2014)	No
			Optics Problem Solving	#4 Calculate the location and size of images formed by mirrors and lenses	70% of the students score at or above 70% on the test/quiz	2014-2015 (Fall 2014)	No
	PHYS-004A	General Physics	1. kinematics	1. Apply equations of kinematics to solve problems involving accelerated motion. (EVC all)	Equal to or greater than 70 % on each question.	2014-2015 (Fall 2014)	No
			2. Position and Velocity	2. Predict the position and valocity of an object if all external forces acting on it are known. (EVC 1,2,3,4,8)	Equal to or greater than 70% for each question.	2014-2015 (Fall 2014)	No
			3. Conservative Force	3. Predict the position and speed of an object subjected to conservative and non-conservative forces. (EVC 4).	Equal to or greater than 70% on each question.	2014-2015 (Fall 2014)	No
			4. Rolling and Spinning	4. Analyse the motion of rolling and spinning masses (EVC 6,8)	Equal to or greater than 70% for each question.	2014-2015 (Fall 2014)	No
			5. Simple harmonic oscillator	5. Apply the principle of the harmonic oscillator to solve more complex systems such as vibrating molecules (EVC 7)	Equal to or greater than 70% on each question.	2014-2015 (Fall 2014)	No
			6. Gravitational force.	6. Apply gravitational force and potential energy to predict the trajectory of objects. (EVC 8)	Equal to or greater than 70% on each question.	2014-2015 (Fall 2014)	No

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			7. Archimedes Principle.	7. Apply Archimedes law to calculate the fraction of a floating object partially submerged. (EVC 9)	Equal to or greater than 70% for each question.	2014-2015 (Fall 2014)	No
	PHYS-004B	General Physics	4. Circuits	4. Assemble and solve basic DC and/or AC circuits containing resistors, inductors, and capacitors	Equal to or greater than 70% score on the lab activity.	2014-2015 (Fall 2014)	No
			5. Magnetic Fields	5. Identify the sources of magnetic fields	70% or Better	2014-2015 (Fall 2014)	No
			6. Induction	6. Describe the phenomena of electromagnetic induction	70% or Better	2014-2015 (Fall 2014)	No
	PHYS-004C	General Physics	10. Interference, Diffraction	10.Explain the phenomena of interference and diffraction in optics. (lec: 7.A, B, D, E; lab: g, j, k)	Achieve at or above 70% on each question.	2014-2015 (Fall 2014)	No
			8. Nature of Light	8.Describe the nature of light. (lec: 9.A)	Student needs to achieve equal to or above 75% on each question.	2014-2015 (Fall 2014)	No
	PHYS-004D	General Physics	Particle Physics	Determine energies and momenta of outgoing particles in elementary reactions.	70% or Better on each question.	2014-2015 (Fall 2014)	No
			Relativity	Use the Lorentz Transformation and invariant quantities to calculate quantities of interest, such as time intervals between events and order of events in different frames of reference.	70% or better on each question.	2014-2015 (Fall 2014)	No