

Course Student Learning Outcomes (CSLOs) FALL 2018

Coalinga - STEM

Date: 09/14/2018

Terms: Spring 2018, Fall 2017, Spring 2017

Campus: West Hills College Coalinga

Summary

Statistic	Number of Courses	Courses
Courses in the Department	24	BIO010, BIO015, BIO032, BIO035, BIO038, CHEM001A, CHEM001B, CHEM002A, MATH-75, MATH001A, MATH001B, MATH002A, MATH002B, MATH010A, MATH010B, MATH015, MATH025, MATH045, MATH049, MATH061, MATH063, MATH064, MATH087, MATH100
Courses with CSLOs	20	BIO010, BIO015, BIO032, BIO035, BIO038, CHEM001A, CHEM001B, CHEM002A, MATH001A, MATH001B, MATH002A, MATH002B, MATH010A, MATH010B, MATH015, MATH025, MATH049, MATH061, MATH063, MATH100
Courses without CSLOs*	4	MATH-75, MATH045, MATH064, MATH087

***Inactive courses or planned to be inactivated by faculty at the start of the Fall semester.**

BIO010 - Fundamentals of Biology**SLOs**

CSLOs	<ul style="list-style-type: none"> » BIO-10-CSLO-1. The student will evaluate given data sets that illustrate evolution as an ongoing process. » BIO-10-CSLO-4. The student will pose scientific questions about the properties of cell membranes and selective permeability based on molecular structure using representations and models. » BIO-10-CSLO-3. The student will pose questions about ethical, social, or medical issues surrounding human genetic disorders. » BIO-10-CSLO-2. The student will predict how a change in a specific DNA or RNA sequence can result in changes in gene expression. » BIO-10-CSLO-5. The student will create representations or models to describe nonspecific immune defenses in plants and animals.
-------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

BIO015 - Biology for Education**SLOs**

CSLOs	<ul style="list-style-type: none"> » BIO-015-CSLO-01: The student will evaluate given data sets that illustrate evolution as an ongoing process. » BIO-015-CSLO-04: The student will pose scientific questions about the properties of cell membranes and selective permeability based on molecular using structure representations and models. » BIO-015-CSLO-03: The student will pose questions about ethical, social, or medical issues surrounding human genetic disorders. » BIO-015-CSLO-02: The student will predict how a change in a specific DNA or RNA sequence can result in changes in gene expression. » BIO-015-CSLO-05: The student will create representations or models to describe nonspecific immune defenses in plants and animals.
-------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

BIO032 - Human Anatomy**SLOs**

CSLOs	<ul style="list-style-type: none"> » BIO-032-CSLO-01: The student will predict the constituent composition of an organ based upon its function. » BIO-032-CSLO-04: The student will accurately locate and reveal specific tissues and organs of preserved specimen. » BIO-032-CSLO-03: The student will compare and contrast the tissues in the body and describe the relationship between structure and function. » BIO-032-CSLO-02: The student will distinguish between the different stages of embryological development.
-------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

BIO035 - Human Physiology**SLOs**

CSLOs	<ul style="list-style-type: none"> » BIO-035-CSLO-01: The student will create a visual representation of how nervous systems transmit information. » BIO-035-CSLO-04: The student will analyze quantitatively and qualitatively the effects of disruptions to dynamic homeostasis in biological systems using representations or models. » BIO-035-CSLO-03: The student will demonstrate the relationships of artificial nutrients and homeostasis. » BIO-035-CSLO-02: The student will construct an explanation of how certain drugs affect signal reception and, consequently, signal transduction pathways. » BIO-035-CSLO-05: The student will construct a visual which traces molecules of absorbed glucose, sodium and water, and discuss what happens to these molecules during the process of urine formation.
-------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

BIO038 - Microbiology

SLOs

CSLOs	<ul style="list-style-type: none"> » BIO-038-CSLO-01: The student will compare and contrast the physical characteristics for various microbes with regards to infections, treatment, and control. » BIO-038-CSLO-02: The student will compare and contrast the chemical characteristics for various microbes with regards to infections, treatment, and control. » BIO-038-CSLO-04: The student will evaluate contemporary issues in everyday life using microbiologic information. » BIO-038-CSLO-03: The student will describe microbial metabolic pathways. » BIO-038-CSLO-05: The student will present his/her findings in the determination of an unknown biological entity using appropriate microbiologic laboratory protocols.
-------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

CHEM001A - General Chemistry I

SLOs

CSLOs	<ul style="list-style-type: none"> » CHEM-001A-CSLO-01: The student will demonstrate proficiency by written exam for concepts using dimensional analysis problem solving with application to unit conversions. » CHEM-001A-CSLO-02: The student will demonstrate proficiency by written exam for concepts requiring the ability to write formulas, name compounds, write and balance chemical equations with applications to stoichiometry. » CHEM-001-CSLO-03: The student will demonstrate proficiency by written exam for concepts requiring the ability to use the mathematical principles of the combined gas law and ideal gas law to selected ideal and non-ideal gas law problems. » CHEM-001-CSLO-04: The student will perform calculations using concentrations units such as molarity. » CHEM-001A-CSLO-05: The student will use graphing software and basic statistics to create/interpret graphs and analyze data.
-------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

CHEM001B - General Chemistry II

SLOs

CSLOs	<ul style="list-style-type: none"> » CHEM-001B-CSLO-01: The student will use development of equilibrium concepts and application to chemical reactions to include solubility product. » CHEM-001B-CSLO-02: The student will complete calculations relating to chemical kinetics. » CHEM-001B-CSLO-03: The student will evolve an advanced understanding of acid-base chemistry including Arrhenius and Bronsted-Lowrey definitions and acid-base equilibrium. » CHEM-001B-CSLO-04: The student will apply electrochemical principles to activity series, electrolysis, Galvanic and electrolytic cells and to mathematical principles such as the Nernst equation. » CHEM-001B-CSLO-05: The student will develop problem solving skills and strategies by understanding qualitative analysis methodology applied in a lab setting by identification of unknown ions.
-------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

CHEM002A - Introductory Chemistry

SLOs

CSLOs	<ul style="list-style-type: none"> » CHEM-002A-CSLO-01: The student will demonstrate proficiency by written exam for concepts using dimensional analysis problem solving with application to unit conversions. » CHEM-002A-CSLO-04: The student will perform calculations using concentrations units such as molarity. » CHEM-002A-CSLO-03: The student will demonstrate proficiency by written exam for concepts requiring the ability to use the mathematical principles of the combined gas law and ideal gas law to selected ideal. » CHEM-002A-CSLO-02: The student will demonstrate proficiency by written exam for concepts requiring the ability to write formulas, name compounds, write and balance chemical equations with applications to stoichiometry.
-------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

MATH-75 - Adaptive Mathematics

SLOs

CSLOs	(None)
-------	--------

MATH001A - Introduction to Calculus

SLOs

CSLOs	<ul style="list-style-type: none"> » MATH-1A-CSLO-01: The student will calculate the limit of a function. » MATH-1A-CSLO-02: The student will differentiate a composite function using the Chain Rule. » MATH-1A-CSLO-03: The student will evaluate a definite integral using the Fundamental Theorem of Calculus.
-------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

MATH001B - Calculus With Applications

SLOs

CSLOs	<ul style="list-style-type: none"> » MATH-001B-CSLO-01: The student will compute the volume of a solid that results when a closed region which is bounded by two continuous functions is rotated about an axis of revolution. » MATH-001B-CSLO-02: The student will evaluate a definite/indefinite integral that requires integration by parts. » MATH-001B-CSLO-03: The student will calculate the sum of an infinite geometric series.
-------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

MATH002A - Multivariate Calculus

SLOs

CSLOs	<ul style="list-style-type: none"> » MATH-002A-CSLO-01: Given three points in space, not all on the same line, the student will derive the equation of the plane containing those three points. » MATH-002A-CSLO-02: Given a differentiable function of several variables, the student will calculate its partial derivatives. » MATH-002A-CSLO-03: Given a continuous function of two variables, the student will integrate that function over a given region.
-------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

MATH002B - Differential Equations

SLOs

CSLOs	<ul style="list-style-type: none"> » MATH-002B-CSLO-01: Given a separable differential equation with an initial condition, the student will solve it. » MATH-002B-CSLO-02: Given a specific function, the student will compute its inverse Laplace transform. » MATH-002B-CSLO-03: Given a continuous three-dimensional function on a closed and bounded set, the student will compute the absolute maximum and absolute minimum on the bounded set.
-------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

MATH010A - Structure & Concepts in Mathematics I

SLOs

CSLOs	<ul style="list-style-type: none"> » MATH-010A-CSLO-01: The student will use Gauss' method to find the sum of an arithmetic series. » MATH-010A-CSLO-02: The student will convert a number from a base other than ten to a base ten number. » MATH-010A-CSLO-03: The student will find the prime factorization of a whole number. » MATH-010A-CSLO-04: The student will solve applications involving rational numbers.
-------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

MATH010B - Structure & Concepts in Mathematics II

SLOs

CSLOs	<ul style="list-style-type: none"> » MATH-010B-CSLO-01: The student will calculate the probability of an event. » MATH-010B-CSLO-02: The student will calculate measures of central tendency. » MATH-010B-CSLO-03: The student will solve problems involving angle measure. » MATH-010B-CSLO-04: The student will solve problems involving similar figures. » MATH-010B-CSLO-05: The student will calculate the surface area of a solid.
-------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

MATH015 - Precalculus

SLOs	
CSLOs	<ul style="list-style-type: none"> » MATH-015-CSLO-01: Given two or more functions, the student will add, subtract, multiply, divide, and compose them. » MATH-015-CSLO-02: Given a logarithmic equation, the student will apply the appropriate properties of logarithms and exponents to solve it. » MATH-015-CSLO-03: Given an exponential equation, the student will apply the appropriate properties of logarithms and exponents to solve it. » MATH-015-CSLO-04: Given a trigonometric equation, the student will apply the properties of trigonometric functions to arrive at the correct solution.

MATH025 - Introduction to Statistics

SLOs	
CSLOs	<ul style="list-style-type: none"> » MATH-025-CSLO-01: Given a probability problem involving the multiplication rule, the student will solve it. » MATH-025-CSLO-03: Given a claim about a population mean, the student will perform a hypothesis test, at a specified significance level, in order to test that claim. » MATH-025-CSLO-02: Given a problem in which it is required to construct a confidence interval in order to estimate a population mean, the student will construct it.

MATH045 - Contemporary Math

SLOs	
CSLOs	(None)

MATH049 - MATHEMATICS DIRECTED STUDY

SLOs	
CSLOs	» MATH-049-CSLO: Instructor will create outcomes on a case by case basis.

MATH061 - Elementary Algebra

SLOs	

CSLOs	<ul style="list-style-type: none"> » MATH-061-CSLO-01: Given a linear equation in one variable, the student will solve it. » MATH-061-CSLO-05: Given a rational equation, the student will solve it. » MATH-061-CSLO-03: Given a trinomial, the student will factor it completely. » MATH-061-CSLO-02: Given a linear equation in two variables, the student will graph it. » MATH-061-CSLO-04: Given a factorable quadratic equation in one variable, the student will solve it.
-------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

MATH063 - Intermediate Algebra

SLOs

CSLOs	<ul style="list-style-type: none"> » MATH-063-CSLO-01: Given a linear equation in two variables, the student will graph it. » MATH-063-CSLO-02: Given a trinomial, the student will factor it completely. » MATH-063-CSLO-03: Given a rational equation in one variable, the student will solve it. » MATH-063-CSLO-04: Given a radical equation in one variable, the student will solve it.
-------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

MATH064 - Elementary and Intermediate Algebra

SLOs

CSLOs	(None)
-------	--------

MATH087 - Mathematics for Life

SLOs

CSLOs	(None)
-------	--------

MATH100 - Pre-Algebra

SLOs

CSLOs	<ul style="list-style-type: none"> » MATH-100-CSLO-1: The student will simplify an expression involving integers. » MATH-100-CSLO-4: The student will solve proportions. » MATH-100-CSLO-3: The student will simplify an expression involving decimals. » MATH-100-CSLO-2: The student will simplify an expression involving fractions. » MATH-100-CSLO-5: The student will solve percent problems.
-------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------