SLO to ILO Alignment Reports

CAN - 00 - Institutional Learning Outcomes (ILOs)

CAN ILO #1 - Critical Thinking - Select, evaluate, and use information to investigate a point of view, support a conclusion, or engage in problem solving.

CAN Dept - Astronomy

CAN ASTR 100: Introduction To Astronomy

Skills and Communication: Demonstrate their astronomical and scientific communication skills through the collection, analysis, or reporting of data

CAN ASTR 100 : Introduction To Astronomy

Characteristics of astronomical objects: Identify and describe the formation and characteristics of the planets, the properties and evolution of stars, and the structure of the Milky Way galaxy

CAN ASTR 100: Introduction To Astronomy

Observational Evidence: Demonstrate their understanding of the scientific process by describing how astronomical observations are used to support scientific theories

CAN ASTR 101 : Astronomy Laboratory

Solar System: Students will demonstrate an understanding of the size and scale of the solar system

CAN ASTR 101 : Astronomy Laboratory

Data: Students will be able to accurately collect and analyze scientific data

CAN ASTR 101 : Astronomy Laboratory

Temperature and Spectra: Students will be able to identify changes in source temperature based on spectral shifts

CAN ILO #2 - Creativity - Produce, combine, or synthesize ideas in creative ways within or across disciplines.

CAN Dept - Astronomy

CAN ASTR 100: Introduction To Astronomy

Skills and Communication: Demonstrate their astronomical and scientific communication skills through the collection, analysis, or reporting of data

CAN ILO #3 - Communication - Use language to effectively convey an idea or a set of facts, including the accurate use of source material and evidence according to institutional and discipline standards.

CAN Dept - Astronomy

CAN ASTR 100 : Introduction To Astronomy

Skills and Communication: Demonstrate their astronomical and scientific communication skills through the collection, analysis, or reporting of data

CAN ASTR 101 : Astronomy Laboratory

Communication and Reporting: Demonstrate scientific communication skills through clear, well-organized laboratory and project reports, as well as oral presentations

CAN ILO #4 - Community - Understand and interpret various points of view that emerge from a diverse world of peoples and cultures.

CAN Dept - Astronomy

CAN ASTR 100: Introduction To Astronomy

Stars: Students will be able to correctly identify different classes of stars based their position in an HR diagram and accurately describe the appropriate life-cycle stage of each type of star.

CAN ASTR 100: Introduction To Astronomy

Skills and Communication: Demonstrate their astronomical and scientific communication skills through the collection, analysis, or reporting of data

CAN ASTR 100 : Introduction To Astronomy

Characteristics of astronomical objects: Identify and describe the formation and characteristics of the planets, the properties and evolution of stars, and the structure of the Milky Way galaxy

CAN ASTR 100 : Introduction To Astronomy

Observational Evidence: Demonstrate their understanding of the scientific process by describing how astronomical observations are used to support scientific theories

CAN ASTR 101 : Astronomy Laboratory

Solar System: Students will demonstrate an understanding of the size and scale of the solar system

CAN ASTR 101 : Astronomy Laboratory

Data: Students will be able to accurately collect and analyze scientific data

CAN ASTR 101 : Astronomy Laboratory

Temperature and Spectra: Students will be able to identify changes in source temperature based on spectral shifts

CAN ASTR 101 : Astronomy Laboratory

Models of astronomical concepts: Construct and analyze models, simulations, and other representations of astronomical concepts

CAN ASTR 101 : Astronomy Laboratory

Telescopes, spectroscopy and photometry: Demonstrate their understanding of the nature of light and of telescopes through laboratory exercises and reports

CAN ASTR 101 : Astronomy Laboratory

Communication and Reporting: Demonstrate scientific communication skills through clear, well-organized laboratory and project reports, as well as oral presentations

SLO to ILO Alignment Reports

CAN - 00 - Institutional Learning Outcomes (ILOs)

CAN ILO #1 - Critical Thinking - Select, evaluate, and use information to investigate a point of view, support a conclusion, or engage in problem solving.

CAN Dept - Chemistry

CAN CHEM 232 : Organic Chemistry II

Synthetic Methods: Apply a variety of synthetic methods to identify the most appropriate synthetic route to obtain given organic molecules.

CAN CHEM 232 : Organic Chemistry II

Acid-base Strength: Predict and justify the relative acid strength and the relative basicity of a variety of organic acids and bases based on molecular structure, inductive effects and resonance effects.

CAN CHEM 232 : Organic Chemistry II

Organic Reactions: Carry out a variety of organic chemistry reactions such as electrophilic aromatic substitution reactions, aldol condensation reactions, ester saponification reactions, etc.

CAN CHEM 232 : Organic Chemistry II

Separation Scheme: Formulate a separation and purification scheme for a given multicomponent mixture of organic compounds.

CAN ILO #2 - Creativity - Produce, combine, or synthesize ideas in creative ways within or across disciplines.

CAN ILO #3 - Communication - Use language to effectively convey an idea or a set of facts, including the accurate use of source material and evidence according to institutional and discipline standards.

CAN Dept - Chemistry

CAN CHEM 192: Elementary Chemistry

Density: The student will understand the concept of density.

CAN CHEM 192: Elementary Chemistry

Matter: The student will understand the three states of matter as well as the difference between a pure substance and a mixture.

CAN ILO #4 - Community - Understand and interpret various points of view that emerge from a diverse world of peoples and cultures.

CAN Dept - Chemistry

CAN CHEM 192: Elementary Chemistry

Equations: Write, balance, and analyze chemical equations to describe chemical processes

CAN CHEM 220 : General Chemistry II

Gibbs Equation: Using the Gibbs equation, calculate the free energy change, ?G, from enthalpy, ?H, and entropy, ?S, changes.

CAN CHEM 232 : Organic Chemistry II

Acid-base Strength: Predict and justify the relative acid strength and the relative basicity of a variety of organic acids and bases based on molecular structure, inductive effects and resonance effects.

CAN CHEM 232 : Organic Chemistry II

Separation Scheme: Formulate a separation and purification scheme for a given multicomponent mixture of organic compounds.

SLO to ILO Alignment Reports

CAN - 00 - Institutional Learning Outcomes (ILOs)

CAN ILO #1 - Critical Thinking - Select, evaluate, and use information to investigate a point of view, support a conclusion, or engage in problem solving.

CAN Dept - Earth Science

CAN GEOG 100 : Physical Geography

Natural Phenomena: Describe natural phenomena of the earth?s surface

CAN GEOG 100 : Physical Geography

Atomsphere: Describe the structure and properties of the atmosphere

CAN GEOG 100 : Physical Geography

Landforms and Environments: Identify how these forces and processes produce distinctive landforms and environments

CAN GEOG 100 : Physical Geography

Concepts: Describe fundamental geographic concepts and techniques

CAN GEOG 100 : Physical Geography

maps: Use, analyze and interpret maps

CAN GEOG 100 : Physical Geography

Sun: Examine the dynamic relationship between the Earth and the Sun and how this relationship affects the Earth system.

CAN GEOG 100 : Physical Geography

Earth: Explain the structure of the Earth's physical features and the processes that shape them.

CAN GEOG 100 : Physical Geography

Spatial distribution: Recognize and interpret the spatial distribution of the Earth's physical features.

CAN GEOG 110 : Cultural Geography

Maps: Demonstrate the ability to use maps

CAN GEOG 110 : Cultural Geography

CAN ILO #1 - Critical Thinking - Select, evaluate, and use information to investigate a point of view, support a conclusion, or engage in problem solving.

CAN GEOG 110 : Cultural Geography

Factor that impact humans: Compare and contrast factors which impact human settlement patterns, population change, the environment and organization of social space

CAN GEOG 110 : Cultural Geography

Socities and Factors: Identify how societies use factors such as race, gender, and religion to organize and control social space

CAN GEOL 101: Geology Laboratory

identification of rocks and minerals: Using an identification key, handlens, hardness samples, and acid, students will be able to identify and determine the probable mode of origin of common rocks and minerals.

CAN ILO #2 - Creativity - Produce, combine, or synthesize ideas in creative ways within or across disciplines.

CAN ILO #3 - Communication - Use language to effectively convey an idea or a set of facts, including the accurate use of source material and evidence according to institutional and discipline standards.

CAN Dept - Earth Science

CAN GEOG 100 : Physical Geography

Natural Phenomena: Describe natural phenomena of the earth?s surface

CAN GEOG 100 : Physical Geography

Atomsphere: Describe the structure and properties of the atmosphere

CAN GEOG 100 : Physical Geography

Landforms and Environments: Identify how these forces and processes produce distinctive landforms and environments

CAN GEOG 100 : Physical Geography

Concepts: Describe fundamental geographic concepts and techniques

CAN GEOG 100: Physical Geography

maps: Use, analyze and interpret maps

CAN GEOG 100 : Physical Geography

Sun: Examine the dynamic relationship between the Earth and the Sun and how this relationship affects the Earth system.

CAN GEOG 100 : Physical Geography

Earth: Explain the structure of the Earth's physical features and the processes that shape them.

CAN GEOG 100 : Physical Geography

Spatial distribution: Recognize and interpret the spatial distribution of the Earth's physical features.

CAN GEOG 110 : Cultural Geography

Maps: Demonstrate the ability to use maps
CAN GEOG 110 : Cultural Geography

Factor that impact humans: Compare and contrast factors which impact human settlement patterns, population change, the environment and organization of social space

CAN GEOG 110 : Cultural Geography

Socities and Factors: Identify how societies use factors such as race, gender, and religion to organize and control social space

CAN ILO #4 - Community - Understand and interpret various points of view that emerge from a diverse world of peoples and cultures.

CAN Dept - Earth Science

CAN GEOG 110 : Cultural Geography

Factor that impact humans: Compare and contrast factors which impact human settlement patterns, population change, the environment and organization of social space

CAN GEOG 110 : Cultural Geography

Socities and Factors: Identify how societies use factors such as race, gender, and religion to organize and control social space

CAN Dept - Earth Science

CAN GEOG 100 : Physical Geography

Natural Phenomena: Describe natural phenomena of the earth?s surface

CAN GEOG 100 : Physical Geography

Atomsphere: Describe the structure and properties of the atmosphere

CAN GEOG 100 : Physical Geography

Landforms and Envirnoments: Identify how these forces and processes produce distinctive landforms and environments

CAN GEOG 100 : Physical Geography

Concepts: Describe fundamental geographic concepts and techniques

CAN GEOG 100: Physical Geography

maps: Use, analyze and interpret maps

CAN GEOG 100 : Physical Geography

Sun: Examine the dynamic relationship between the Earth and the Sun and how this relationship affects the Earth system.

CAN GEOG 100 : Physical Geography

Earth: Explain the structure of the Earth's physical features and the processes that shape them.

CAN GEOG 100 : Physical Geography

Spatial distribution: Recognize and interpret the spatial distribution of the Earth's physical features.

CAN GEOG 110 : Cultural Geography

Maps: Demonstrate the ability to use maps
CAN GEOG 110 : Cultural Geography

Factor that impact humans: Compare and contrast factors which impact human settlement patterns, population change, the environment and organization of social space

CAN GEOG 110 : Cultural Geography

Socities and Factors: Identify how societies use factors such as race, gender, and religion to organize and control social space

CAN OCEN 101 : Oceanography Lab/Field Study

Chart and map skills: Students will read and analyze maps and nautical charts to obtain oceanographic data.

SLO to ILO Alignment Reports

CAN - 00 - Institutional Learning Outcomes (ILOs)

CAN ILO #1 - Critical Thinking - Select, evaluate, and use information to investigate a point of view, support a conclusion, or engage in problem solving.

CAN ILO #2 - Creativity - Produce, combine, or synthesize ideas in creative ways within or across disciplines.

CAN ILO #3 - Communication - Use language to effectively convey an idea or a set of facts, including the accurate use of source material and evidence according to institutional and discipline standards.

CAN ILO #4 - Community - Understand and interpret various points of view that emerge from a diverse world of peoples and cultures.

CAN Dept - Physics

CAN PHYS 210 : General Physics I

Newton's Laws: Perform an analysis of a physical system in terms of forces, velocities displacements and accelerations and time using Newton's laws.

CAN PHYS 210 : General Physics I

Energy: Analyze the motion of a body (rotational or linear) in terms or momentum, kinetic energy, and potential energy.

CAN PHYS 210 : General Physics I

Thermodynamics: Perform an analysis of isobaric, isochoric, isothermal and adiabatic processes in their relation to work, heat transfer, and changes in internal energy.

CAN PHYS 220 : General Physics II

DC Circuits: Analyze and explain the behavior of simple DC circuits with resistors, capacitors, and batteries.

CAN PHYS 220 : General Physics II

Optics: Analyze the reflection and refraction of light in terms of geometrical optics in different media.

CAN PHYS 220 : General Physics II

Modern Physics: Describe the photo-electric effect, the Compton effect, quantization of energy and the Bohr model of the atom.

CAN PHYS 250 : Physics with Calculus I

Newton's Laws: Perform an analysis of a physical system in terms of forces, velocities

displacements and accelerations and time using Newton's laws.

CAN PHYS 250 : Physics with Calculus I

Energy: Analyze the motion of a body (rotational or linear) in terms or momentum,

kinetic energy, and potential energy.

CAN PHYS 250 : Physics with Calculus I

Laboratory Experience: Setup, perform, analyze, and document an experiment.

CAN PHYS 260 : Physics with Calculus II

EForce: Analyze electric forces and fields created by a system of charged particles

CAN PHYS 260 : Physics with Calculus II

ACDC: Analyze and explain the behavior of simple AC & DC circuits with resistors,

capacitors, and inductors

CAN PHYS 260 : Physics with Calculus II

Induction: Solve problems involving induced electric and magnetic fields

CAN PHYS 270 : Physics with Calculus III

CAN PHYS 270 : Physics with Calculus III

Thermodynamics: Perform an analysis of isobaric, isochoric, isothermal and adiabatic processes in their relation to work, heat transfer, and changes in internal energy.

CAN PHYS 270 : Physics with Calculus III

Optics: Analyze the reflection and refraction of light in terms of geometrical optics in different media.

CAN PHYS 270 : Physics with Calculus III

Special Relativity: Explain the principle assumptions of Special Relativity and able to perform calculations involving relativistic kinematics.

CAN PHYS 270 : Physics with Calculus III

Modern Physics: Describe the photo-electric effect, the Compton effect, quantization of energy and the Bohr model of the atom.