This course supports the assessments for INT1. The course covers 3 competencies and represents 4 competency units.

**Introduction**

**Overview**
Welcome to Integrated Natural Sciences Applications Course! The goal of this domain is to engage you in an exciting study and survey of our natural world. You will explore the natural world through an integrated perspective and you will begin to see and draw numerous connections among the natural science material.

Watch the following video for an introduction to this course.

- [Welcome to Integrated Natural Science Applications](#)

**Competencies**
This course provides guidance to help you demonstrate the following 3 competencies:

- **Competency 114.1.1: Scientific Concepts and Methodologies**
  The graduate recognizes and analyzes various natural phenomena; applies natural science methods and approaches to these natural phenomena.

- **Competency 114.1.2: Fundamentals of Natural Science**
  The graduate examines fundamental concepts and theories in the natural sciences.

- **Competency 114.2.3: Ecosystems**
  The graduate analyzes the components, organization, interactions, and processes of ecosystems.

**Course Instructor Assistance**
As you prepare to successfully demonstrate competency in this subject, remember that course instructors stand ready to help you reach your educational goals. As subject matter experts, mentors enjoy and take pride in helping students become reflective learners, problem solvers, and critical thinkers. Course instructors are excited to hear from you and eager to work with you. Successful students report that working with a course instructor is the key to their success. Course instructors are able to share tips on approaches, tools, and skills that can help you apply the content you’re studying. They also provide guidance in assessment preparation strategies and troubleshoot areas of deficiency. Even if things don’t work out on your first try, course instructors act as a support system to guide you through the revision process. You should expect to work with course instructors for the duration of your coursework, so you are welcome to contact them as soon as you begin. Course instructors are fully committed to your success!

**Preparing for Success**

The information in this section is provided to detail the resources available for you to use as you complete this course.
Learning Events
Live Events-Integrated Natural Science

INT1 Live Events

Click on the calendar title (INT1 Live Events) to open the calendar in a new window.

Course Instructor Assistance

Click HERE for more information about upcoming INT1 task workshops and sign-up sheets.

Click the links below for INT1 FAQs:

- Task 1 FAQs
- Task 2 FAQs
- Task 3 FAQs

Click HERE for the live calendar of orientation meetings, science experiment introductions, and open office hours.

Pacing Guide
The pacing guide suggests a weekly structure to pace your completion of learning activities. It is provided as a suggestion and does not represent a mandatory schedule. Follow the pacing guide carefully to complete the course in the suggested timeframe.

- Pacing Guide: Integrated Natural Sciences Applications

Note: This pacing guide does not replace the course. Please continue to refer to the course for a comprehensive list of the resources and activities.

Integrated Natural Sciences Applications: INT1

The Integrated Natural Sciences Applications Course provides an overview of the content and concepts that correspond with the three performance tasks you will research, create, and submit for this assessment.

There are three performance tasks you will complete for Integrated Natural Sciences Applications (INT1).

For performance tasks, it is imperative that you have access to your task instructions and rubric in TaskStream before beginning work on these tasks. You may click the button in your Student Degree Plan for Integrated Natural Sciences (INT1) to start the process of releasing tasks and their instructions to your account in TaskStream. Your program mentor can also help you with this process.

Integrated Natural Sciences Applications performance tasks:

- Task 1: The Changing Nature of Science Over Time (2 part, 8-10 slide total multimedia
Task 2: Ecosystem (6–8 slide multimedia slide presentation)
Task 3: Science Experiment (4–6 page science experiment write up)

Natural Science INT1 Task 1
This topic will guide you as you engage in the learning resource for this course.

This topic addresses the following competencies:

- Competency 114.1.1: Scientific Concepts and Methodologies
  The graduate recognizes and analyzes various natural phenomena; applies natural science methods and approaches to these natural phenomena.
- Competency 114.1.2: Fundamentals of Natural Science
  The graduate examines fundamental concepts and theories in the natural sciences.
- Competency 114.2.3: Ecosystems
  The graduate analyzes the components, organization, interactions, and processes of ecosystems.

To address the performance tasks for this course, view the following videos:

Task 1

Scientific understanding changes over time. New knowledge, research, and events, such as natural disasters, teach us about our natural world. These new elements continually add to and deepen our understanding of the natural world. In this task, you will research (1) a concept and (2) an event. Through these examples, show how science has changed over time. Using the course materials and other resources available to you, such as the internet, you will research a (1) specific scientific concept or phenomenon for which our understanding has changed over time (structure of the atom, theory of evolution, theory of plate tectonics, etc) and (2) a specific historical event (moon landing, Mt. St. Helen's volcanic eruption, etc) that has changed our scientific understanding. Note that your concept and event do not have to relate to one another. You will summarize and synthesize your findings in your task 1 multimedia file.

Good topic choice is imperative for your success on this task. You can get feedback on your topic choices by reaching out to your course instructor or emailing naturalscience@wgu.edu.

Click to see an example of Task 1.

Watch the following videos for help with Task 1.

- Task 1 Overview

Natural Science INT1 Task 2
This topic will guide you as you engage in the learning resource for this course.

This topic addresses the following competencies:

- Competency 114.1.1: Scientific Concepts and Methodologies
The graduate recognizes and analyzes various natural phenomena; applies natural science methods and approaches to these natural phenomena.

- Competency 114.1.2: Fundamentals of Natural Science
  The graduate examines fundamental concepts and theories in the natural sciences.
- Competency 114.2.3: Ecosystems
  The graduate analyzes the components, organization, interactions, and processes of ecosystems.

Task 2

A key concept related to ecosystems is that all components of an ecosystem are connected. Changes in a system can result in ripple effects felt throughout the interconnected system. Human actions that directly affect one part of an ecosystem can have indirect effects on other components. In this task, you will choose and research a specific ecosystem of your choice and summarize and synthesize your findings on that ecosystem in your task 2 multimedia file.

Good topic choice is imperative for your success on this task. You can get feedback on your topic choices by reaching out to your course instructor or emailing naturalscience@wgu.edu.

Click to see an example of Task 2.

Watch the following videos for help with Task 2.

- Task 2 Overview
- What Is an Ecosystem?

Natural Science INT1 Task 3

This topic will guide you as you engage in the learning resource for this course.

This topic addresses the following competencies:

- Competency 114.1.1: Scientific Concepts and Methodologies
  The graduate recognizes and analyzes various natural phenomena; applies natural science methods and approaches to these natural phenomena.
- Competency 114.1.2: Fundamentals of Natural Science
  The graduate examines fundamental concepts and theories in the natural sciences.
- Competency 114.2.3: Ecosystems
  The graduate analyzes the components, organization, interactions, and processes of ecosystems.

Task 3

The scientific method is a useful tool in order to study and understand our natural world. In addition, communicating one's findings and experiment results is as integral part of the field of science. In this task, you will be a scientist and will choose, design, conduct, and present a science experiment as an experimental report. (Suggested length 4-8 pages, double spaced.) For a list of possible science experiment topic ideas refer to the "Topic List" attachment in Taskstream.com. This is not an exhaustive list, only suggestions. Also please note that if you
wish to conduct an experiment using a living organism, no science experiments using vertebrate
animals (including humans) as test subjects will be accepted. Your science experiment,
designed from a testable question that investigates the relationship between two variables
(independent and dependent) must have an objectively measurable outcome (i.e. yields
quantitative, numeric data).

Good topic choice is imperative for your success on this task. You can get feedback on your
topic choices by reaching out to your course instructor or emailing naturalscience@wgu.edu.

Click to see an example of Task 3.

Watch the following videos for help with Task 3.

- Task 3 Overview
- Problem Statement
- Literature Review
- Experimental Design Steps vs. Sequence of Events
- Variables
- Threat Reduction to Internal Validity
- Hypothesis
- Process of Data Collection
- Appropriate Methods
- Graphing Example
- Conclusion
- Replication

**Final Steps**

Congratulations on completing the activities in this course! This course has prepared you to
complete the assessments associated with this course. If you have not already been directed to
complete the assessments, schedule and complete your assessments now.