

## **Program Guidebook**

# Bachelor of Arts, Educational Studies in Secondary Biological Science Education

The Bachelor of Arts, Educational Studies inSeconary Bilogical Science Education (BAESSESB), includes content knowledge related to secondary biological science (5-12) teaching. This program consists of online courses which take the learner from general education, through methods of instruction, assessment, and classroom management to science education courses for interacting with secondary grades students. It does not include a supervised teaching practicum in a real classroom and therefore does not meet the requirements for initial teacher licensure. This program is for individuals who, for various reasons, want the academic knowledge that relates to teaching, but who cannot or do not want to participate in a supervised classroom practicum and do not expect to be eligible to teach as a result of completing the program.

# **Understanding the Competency-Based Approach**

	your degree by demonstrating your skills, knowledge, and understanding of important concepts.
	content you must master to pass the course assessments.
Ac	number of credits hours on your transcript.
	earned accreditation from four regional accrediting commissions. WGU's accreditation was awarded by
Th	accredited by the Accreditation Council for Business Schools and Programs (ACBSP).  e Degree Plan
	plan to devote each week to study.

relevant and current.
possess may help you accelerate the time it takes to complete your degree program.
<b>Continuous Enrollment, On Time Progress, and Satisfactory Academic Progress</b>
month term.
equivalent to a "B" grade or better.
competency units while others may be as large as 12 competency units.
for federal financial aid.
Courses

your determination to proceed at a faster rate.

re-enter into the most current catalog version of the program.				

# Areas of Study Bachelor of Arts, Educational Studies in Secondary Biological Science Education

## **General Education**

**Composition: Writing with a Strategy** 

common standards and practices.

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The individual writes with purpose for a given context and target audience.

The individual incorporates writing strategies and techniques for written communication.

The individual constructs a written document with correct format, style, structure, and grammar.

The individual formulates a strategy for editing and revising written text.

The individual composes constructive feedback of written texts.

## **Introduction to Communication: Connecting with Others**

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The learner implements appropriate communication styles based on audience and setting.

The learner uses communication strategies for managing conflict.

The learner uses communication strategies to influence others.

## **Integrated Physical Sciences**

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The learner describes the nature and process of science.

The learner examines applications of physics including fundamental concepts such as forces, motion, energy, and waves.

The learner examines applications of key chemistry concepts including the structure of matter and the behavior and conservation of matter in chemical reactions.

The learner describes the underlying organization, interactions, and processes within the Earth system including the Earth's structure and atmosphere, and Earth's interactions within the solar system.

## **Applied Probability and Statistics**

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate applies the operations, processes, and procedures of fractions, decimals, and percentages to evaluate quantitative expressions.

The graduate applies the operations, processes, and procedures of basic algebra to evaluate quantitative expressions, and to solve equations and inequalities.

The graduate evaluates categorical and quantitative data pertaining to a single variable using appropriate graphical displays and numerical measures.

The graduate evaluates the relationship between two variables through interpretation of visual displays and numerical measures.

The graduate evaluates the relationship between two quantitative variables through correlation and regression.

The graduate applies principles and methods of probability-based mathematics to explain and solve problems.

### **Composition: Successful Self-Expression**

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The The The

The learner incorporates self-expression in written communication.

**US History: Stories of American Democracy** 

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The learner analyzes diverse voices, ideas, perspectives, and cultural interactions through the lens of the humanities.

The learner analyzes the humanities during the Information Age.

The learner analyzes how music shapes and is shaped by diverse cultures and perspectives.

## **Professional Core**

## The School as a Community of Care

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate plans for learning environments that meet all students' cultural, social, and emotional learning needs by incorporating knowledge of individual learners, diverse cultures, and communities.

The graduate develops strategies to address the social and emotional learning (SEL) needs of students, including the re topgraduateto

The graduate analyzes the role of historical and cultural influences, including issues of federal and state governance, in determining standard educational practices and ensuring equal access to educational opportunities.

The graduate examines the impact of standards-based curriculum on students and teachers to determine how it supports a school's goals.

The graduate evaluates the application of educational best practices in diverse learning settings to inform teaching practice.

The graduate explores pathways and opportunities for professional development to grow as an educator.

## **Educational Psychology and Development of Children and Adolescents**

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate describes theories of development across the cognitive, linguistic, social, emotional, and physical areas to understand the needs of students at various developmental levels.

The graduate evaluates the influence of students' developmental characteristics on their learning and evaluates performance to inform instructional decisions.

The graduate recommends instructional strategies that will positively impact learning, based on principles of learning theories.

The graduate evaluates classroom practices to determine how theories of child and adolescent psychology, learning, and development are applied in the classroom environment.

## **Fundamentals of Diverse Learners**

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate analyzes the application of policies, practices, and legal requirements to inform teaching practice.

The graduate creates inclusive learning environments featuring multitiered systems of supports to address the needs of all students, including exceptional learners and English learners.

The graduate creates learning experiences that accommodate the needs of students with exceptionalities, including gifted and talented students, in order to facilitate the success of all learners.

The graduate integrates equity pedagogy to address the needs of multicultural learners.

The graduate plans learning experiences that accommodate linguistic diversity to facilitate the success of all learners.

The graduate recommends strategies to engage with students, families, administrators, and other stakeholders in ways that are effective, legal, and ethical.

## **Managing Engaging Learning Environments**

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate plans a progress-monitoring strategy, including formative, summative, and common assessments, that actively engages students in their own learning.

The graduate analyzes assessment results to evaluate student learning and teacher effectiveness.

The graduate makes evidence-based instructional decisions that are informed by student assessment data.

The graduate determines their impact on learners and the broader school community through evaluation of teaching practice.

## **Educational Technology for Teaching and Learning**

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate analyzes how research-based applications of technology facilitate student learning.

The graduate evaluates the application of technology in the classroom, including its impact on learning for all students and potential equity or access issues.

The graduate promotes a technology-enabled classroom culture that is equitable, ethical, and socially responsible.

The graduate applies curricular and instructional design principles to create effective digital learning environments.

The graduate recommends technology as an assessment tool to encompass multiple learner needs, provide in the moment feedback, and inform instruction.

The graduate fosters student self-directedness and independent learning through the use of technology.

## **General Science Content**

#### Introduction to Biology

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate analyzes the characteristics and classifications of living organisms.

The graduate analyzes the basic chemical composition of cells and the basic processes that happen at the cellular level.

The graduate analyzes different types of cells based on their structures and biological functions.

The graduate analyzes the biological basis for and patterns of heredity and gene expression.

The graduate analyzes inter-dependencies of organisms and their environments.

## **Ecology and Environmental Science**

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate examines ecosystems to analyze the relationship between populations and the environment.

The graduate examines the flow of energy in an ecosystem to assess how changes in that flow affect biodiversity.

The graduate analyzes biogeochemical cycles to explain the importance of these cycles to global processes.

The graduate researches environmental challenges to discuss potential solutions.

The graduate assesses the challenges associated with resource management in order to compare potential sustainable solutions.

## Zoology

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate distinguishes the characteristics of animals to organize them into phyla.

The graduate analyzes the anatomies of animals to distinguish the relationships among organisms.

The graduate analyzes adaptations to recognize the impact on the evolution of phyla.

The graduate analyzes the life cycles of animals to determine the relationships within and between phyla.

### **Science**

#### Concepts in Science

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate applies principles of measurement to solve scientific problems.

The graduate explains how various forms of matter and energy respond to physical and chemical changes to understand how matter and energy flow within and among systems.

The graduate determines the composition of atoms and compounds to understand the properties of matter.

The graduate analyzes numeric data to identify patterns and relationships.

## **Chemistry Content**



## **Accessibility and Accommodations**

students. WGU's Accessibility Services team supports this mission by providing support, resources, advocacy,

## **Need More Information? WGU Student Services**

make recommendations for improving policy and practice based on student feedback.

Saturday from 7:00 a.m. to 7:00 p.m., mountain standard time. Closed Sundays.

closed in observance of university holidays.