Program Guidebook

Bachelor of Science, Science Education (Secondary Earth Science)

The Bachelor of Science, Science Education (Secondary Earth Science) is a competency based degree program that prepares students to be licensed as secondary earth and space science teachers. All work in this degree program is online with the exception of the Demonstration Teaching and in-classroom field experience components, which prepare teacher candidates for the classroom. Candidates develop and refine their teaching skills through a series of sequential experiences beginning with video-based observations of classroom instruction to prepare candidates for an authentic, collaborative, pre-clinical teaching experiences in K-12 settings. Clinical experiences culminate with supervised demonstration teaching in a real classroom. The program consists of work in General Education, Foundations of Teaching, General Science Content, Mathematics Content, Geosciences Content, Pedagogy, Science Education, Field Experience, and Demonstration Teaching.

Understanding the Competency-Based Approach

Practically speaking, how do competency-based programs like those offered at Western Governors University (WGU) work? Unlike traditional universities, WGU does not award degrees based on completion of a certain number of credit hours or a certain set of required courses. Instead, you will earn

Progress through a degree program is governed not by the amount of time you spend in class but by your ability to demonstrate mastery of competencies as you complete required courses. Of course, you will need to engage in learning experiences as you review competencies or develop knowledge and skills in areas in which you may be weak. To help you acquire the knowledge and skills you need to complete your courses and program, WGU provides a rich array of learning resources. Your program mentor will work closely with you to help you understand the competencies required for your program and to help you create a schedule for completing your courses. You will also work closely with course instructors as you engage in each of your courses. As subject matter experts, course instructors will guide you through the

The benefit of this competency-based system is that it enables students who are knowledgeable about a particular subject to make accelerated progress toward completing a degree, even if they lack college experience. You may have gained skills and knowledge of a subject while on the job, accumulated wisdom through years of life experience, or already taken a course on a particular subject. WGU will award your degree based on the skills and knowledge that you possess and can demonstrate—not the

Accreditation

Western Governors University is the only university in the history of American higher education to have

(1) the Northwest Commission on Colleges and Universities, (2) the Higher Learning Commission of the North Central Association of Colleges and Schools, (3) the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges, and (4) the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges. The university's accreditation status is now managed by the Northwest Commission on Colleges and Universities (NWCCU), which reaffirmed WGU's accreditation in February 2020. The WGU Teachers College is accredited at the initial-licensure level by the Council for the Accreditation of Educator Preparation (CAEP) and by the Association of Advancing Quality in Educator Preparation (AAQEP) . The nursing programs are accredited by the Commission on Collegiate Nursing Education (CCNE). The Health Information Management program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). The College of Business programs are

The Degree Plan

The focus of your program is your personalized Degree Plan. The Degree Plan is a detailed blueprint of the courses you will need to complete in order to earn your degree. The Degree Plan also lays out the accompanying learning resources and assessments that compose your program. The list of courses in the Degree Plan is often referred to as the standard path. The amount of time it takes to complete your program depends on both the amount of new information you need to learn and the amount of time you

Students vary widely in the specific skills and information they need to learn. For example, some students may be highly knowledgeable in a particular subject matter and would not need to engage in new learning opportunities. Other students may find that portions of the program require them to learn new information and that they need to take an online class or participate in a study module to acquire the knowledge and skills needed to fulfill program competencies in that area. Some individuals may be able to devote as little as 15–20 hours per week to the program, while others may need to devote more time. For this reason,

'Requirement Satisfied' (RS) in some cases. Refer to your specific program transfer guidelines to determine what can be satisfied by previously earned college credits. In most cases, WGU does not accept college transfer credits at the graduate (master's) level. Students entering graduate programs must have their undergraduate degree transcripts verified before being admitted to WGU. In addition to a program's standard course path, there may be additional state-specific requirements.

[Click here for the Student Handbook](#)

WGU does not waive any requirements based on a student's professional experience and does not perform a "résumé review" or "portfolio review" that will automatically waive any degree requirements. Degree requirements and transferability rules are subject to change in order to keep the degree content

Remember, WGU's competency-based approach lets you take advantage of your knowledge and skills, regardless of how you obtained them. Even when you do not directly receive credit, the knowledge you

Continuous Enrollment, On Time Progress, and Satisfactory Academic Progress

WGU is a "continuous enrollment" institution, which means you will be automatically enrolled in each of your new terms while you are at WGU. Each term is six months long. Longer terms and continuous enrollment allow you to focus on your studies without the hassle of unnatural breaks between terms that you would experience at a more traditional university. At the end of every six-month term, you and your program mentor will review the progress you have made and revise your Degree Plan for your next six-

WGU requires that students make measurable progress toward the completion of their degree programs every term. We call this "On-Time Progress," denoting that you are on track and making progress toward on-time graduation. As full-time students, graduate students must enroll in at least 8 competency units each term, and undergraduate students must enroll in at least 12 competency units each term. Completing at least these minimum enrollments is essential to On-Time Progress and serves as a baseline from which you may accelerate your program. We measure your progress based on the courses you are able to pass, not on your accumulation of credit hours or course grades. Every time you pass a course, you are demonstrating that you have mastered skills and knowledge in your degree program. For comparison to traditional grading systems, passing a course means you have demonstrated competency

WGU assigns competency units to each course in order to track your progress through the program. A competency unit is equivalent to one semester credit of learning. Some courses may be assigned 3

Satisfactory Academic Progress (SAP) is particularly important to students on financial aid because you must achieve SAP in order to maintain eligibility for financial aid. We will measure your SAP quantitatively by reviewing the number of competency units you have completed each term. In order to remain in good academic standing, you must complete at least 66.67% of the units you attempt over the length of your program—including any courses you add to your term to accelerate your progress. Additionally, during your first term at WGU you must pass at least 3 competency units in order to remain eligible for financial aid. We know that SAP is complex, so please contact a financial aid counselor should you have additional questions. *Please note: The Endorsement Preparation Program in Educational Leadership is not eligible

Courses

Your Degree Plan includes courses needed to complete your program. To obtain your degree, you will be

Course Description	CUs
Professional Portfolio	2
Cohort Seminar	3
Student Teaching II in Secondary Education	6

Changes to Curriculum

WGU publishes an Institutional Catalog, which describes the academic requirements of each degree program. Although students are required to complete the program version current at the time of their enrollment, WGU may modify requirements and course offerings within that version of the program to maintain the currency and relevance of WGU's competencies and programs. When program requirements are updated, students readmitting after withdrawal from the university will be expected to

Areas of Study for Bachelor of Science, Science Education (Secondary Earth Science)

The following section includes the areas of study in the program, with their associated courses. Your specific learning resources and level of instructional support will vary based on the individual competencies you bring to the program and your confidence in developing the knowledge, skills, and abilities required in each area of the degree. The Degree Plan and learning resources are dynamic, so you need to review your Degree Plan and seek the advice of your mentor regarding the resources before you purchase them.

General Education

Composition: Writing with a Strategy

Welcome to Composition: Writing with a Strategy! In this course, you will focus on three main topics: understanding purpose, context, and audience, writing strategies and techniques, and editing and revising. In addition, the first section, will offer review on core elements of the writing process, cross-cultural communication, as well as working with words and

Each section includes learning opportunities through readings, videos, audio, and other relevant resources. Assessment activities with feedback also provide opportunities to check your learning, practice, and show how well you understand course content. Because the course is self-paced, you may move through the material as quickly or as slowly as you need to gain proficiency in the seven competencies that will be covered in the final assessment. If you have no prior knowledge or experience, you can expect to spend 30-40 hours on the course content.

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

Welcome to Introduction to Communication: Connecting with Others! It may seem like common knowledge that communication skills are important, and that communicating with others is inescapable in our everyday lives. While this may appear simplistic, the study of communication is actually complex, dynamic, and multifaceted. Strong communication skills are invaluable to strengthening a multitude of aspects of life. Specifically, this course will focus on communication in the professional setting, and present material from multiple vantage points, including communicating with others in a variety of contexts, across situations, and with diverse populations. Upon completion, you will have a deeper understanding of both your own and others' communication behaviors, and a toolbox of effective behaviors to enhance your experience in the workplace.

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 provides students with an overview of the basic principles and unifying ideas of the physical sciences: physics, chemistry, and earth sciences. Course materials focus on scientific reasoning and practical, everyday applications of physical science concepts to help students integrate conceptual knowledge with practical skills.

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 incorporates self-expression in written communication.

US History: Stories of American Democracy

explores how historical events and major themes in American history have affected diverse populations, influenced changes

sections. Each section includes learning opportunities through reading, images, videos, and other relevant resources. Assessment activities with feedback also provide opportunities to practice and check how well you understand the content. Because the course is self-paced, you may move through the material as quickly or as slowly as you need to, with the goal of demonstrating proficiency in the five competencies covered in the final assessment. If you have no prior knowledge of this

invitation to see the world through the humanities, examine the humanities during the Information Age, and explore the global origins of music—essentially questioning what makes us human, and how people are connected across culture and time. Each module includes learning opportunities through readings, videos, audio, and other relevant resources. Assessment activities with feedback also provide opportunities to practice and check learning. With no prior knowledge or exptrSgpdqsne l /Layvportuni>lored asee tpehec30-40 peur mun

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

Educational Psychology and Development of Children and Adolescents is a key component of WGU's Professional Core and is a required course for all initial licensure candidates. This course prepares candidates to support classroom practices grounded in research-validated principles from the areas of educational psychology and child/adolescent development. Candidates will be introduced to learning theories that equip them with the knowledge and skills necessary to support the diverse populations of students with whom they will interact. This course addresses theories of human development, spanning early childhood through adolescence, and candidates completing this course will be able to explain and analyze the guiding perspectives on linguistic, physical, cognitive, and social development. This course will also cover appropriate instructional and assessment strategies to support student learning and development. Candidates will engage in four hours of virtual classroom observations related to issues in educational psychology and learner development. Cross-cutting themes of technology and diversity are interwoven for further development.

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

Fundamentals of Diverse Learners is a key component of WGU's Professional Core and is a required course for all initial licensure candidates. This course prepares candidates to consider and address the wide range of learning needs in the classrooms of today. This course teaches candidates to identify and support the needs of diverse populations of learners, including, for example, students with disabilities (Including Dyslexia), students who are English language learners, and students who are gifted and talented. Practical strategies for differentiating instruction while creating a safe, inclusive, and culturally responsive learning environment are explored. This course helps candidates develop skills for partnering with parents and advocating for all students, particularly those impacted by provisions of IDEA and Section 504 of the Rehabilitation Act. Multitiered systems of support are addressed to prepare candidates for their future classrooms as they seek to select appropriate instructional practices and interventions to best serve their students. Candidates will engage in four hours of preclinical experiences that include a simulated teaching experience in which skills learned can be applied. Cross-cutting themes of technology and diversity are interwoven for further development.

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

Managing Engaging Learning Environments is a key component of WGU's Professional Core and is a required course for all initial licensure candidates. This course prepares candidates to establish and contribute to safe and productive learning environments that support the success of all learners by ensuring student engagement and motivation for learning. Candidates will learn strategies, such as incorporating consistent routines and expectations, to provide positive behavior supports, increase learner motivation, promote active learning and self-direction, and ensure a safe and productive classroom setting that fosters a sense of community through collaborative educational practices. The course will culminate in evidence-based, practical application of current strategies, theories, or philosophical perspectives related to motivating and engaging all students in a learning community. Candidates will engage in seven hours of preclinical experiences that include both virtual observations of classroom settings and time in a simulated classroom environment where theory can be put into practice. Cross-cutting themes of technology and diversity are interwoven for further development.

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 establishes norms and routines to create a safe and productive learning environment that encourages positive social interactions, individual and collaborative learning, and appropriate classroom behaviors.

The graduate interacts with each student in a way that builds positive relationships by using knowledge of individual learners, diverse cultures, and communities.

The graduate analyzes the theoretical foundations and application of classroom management strategies, including behavior support and conflict management, to inform teaching practice.

The graduate recommends strategies that are motivating and encourage active engagement from all students.

Introduction to Curriculum, Instruction, and Assessment

Introduction to Curriculum, Instruction, and Assessment is a key component of WGU's Professional Core and is a required course for all initial licensure candidates. This course provides candidates with the knowledge and skills necessary to create engaging and standards-aligned lessons that meet the needs of all learners. Candidates will learn to analyze learner needs based on a variety of inputs, including their state P–12 standards, assessment results, and knowledge of learner differences. This course will help candidates design, deliver, and modify instruction in accordance to needs and educational requirements. Candidates will engage in three hours of preclinical experiences that include virtual classroom observations. They also will record a short teaching segment, allowing for authentic teaching experience. Cross-cutting themes of technology and diversity are interwoven for continued development.

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 aligns lessons to learning goals by synthesizing knowledge about students and their assessment data.

The graduate analyzes the role of various assessment types in evaluating student learning and planning future instruction.

The graduate implements evidence-based instructional strategies to increase content area learning.

The graduate differentiates instruction to facilitate mastery for all learners.

The graduate incorporates cross-disciplinary instruction, skills, and content into lessons.

The graduate creates standards-based instructional plans based on their state's P–12 standards that incorporate knowledge of learners' developmental needs, prior learning, and community and cultural context.

Assessing Impact on Student Learning

Assessing Impact on Student Learning is a key component of WGU's Professional Core and is a required course for all initial licensure candidates. This course equips candidates to evaluate student learning and their own professional practice, ensuring candidates are prepared to ensure all learners' success. In this course, candidates learn multiple methods of assessment to ensure they are able to implement a balanced approach to assessment while monitoring their students' progress. Assessments types such as formative, summative, standardized, and common assessments are addressed so candidates understand their purposes and can apply them within the context of a lesson to determine impact on learning. Data literacy skills are taught to ensure candidates interpret and analyze individual and classroom data and apply their

knowledge in ways that support academic success. Candidates will engage in three hours of preclinical experiences that include virtual classroom observations. Cross-cutting themes of technology and diversity are interwoven for further development.

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

Educational Technology for Teaching and Learning is a key component of WGU's professional core and is a required course for all initial licensure candidates. This course prepares candidates to incorporate technology into their classroom practices in ways that improve teaching and learning. The ISTE standards will form the basis for their practice. The material will teach candidates to critically evaluate software and hardware options that may positively impact the classroom environment, while also increasing their awareness of ethical usage and considerations related to equity, access to technology, and appropriate use of technology by P–12 students. Assistive technologies to meet the needs of a diverse learner population also will be taught in this course. Candidates will engage in three hours of preclinical experience that include virtual observations of classroom practices incorporating technology to support educational goals. Cross-cutting themes of technology and diversity are interwoven for further development.

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 is a foundational introduction to the biological sciences. The overarching theories of life from biological research are explored as well as the fundamental concepts and principles of the study of living organisms and their interaction with the environment. Key concepts include how living organisms use and produce energy; how life grows, develops, and reproduces; how life responds to the environment to maintain internal stability; and how life evolves and adapts to the environment.

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

Ecology and Environmental Science is an introductory course for undergraduate students seeking initial licensure or endorsement in secondary or middle grade science education. The course explores the relationships between organisms and their environment, including population ecology, communities, adaptations, distributions, interactions, and the environmental factors controlling these relationships. This course has no prerequisites.

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.

General Physics

This course provides a broad overview of the principles of mechanics, thermodynamics, wave motion, modern physics, and electricity and magnetism. and invites students to apply them by solving problems, performing labs, and reflecting on concepts and ideas.

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 has a broad understanding of energy, including mechanics, heat, and electricity and magnetism.

The graduate has a broad understanding of wave motion and atomic nuclear physics.

Geology I: Physical

Geology I: Physical provides undergraduate students seeking initial licensure or endorsement in secondary science education with an introduction to minerals and rocks, the physical features of the Earth, and the internal and surface processes that shape those features. This course has no prerequisites.

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 traces Western history of Earth sciences to discuss key concepts and famous scientists in a cultural context.

The graduate analyzes composition, location, movement, and physical evidence of tectonic plates to distinguish landforms and geologic features.

The graduate analyzes minerals and rocks for the purpose of identification and classification.

The graduate examines Earth's internal processes to discuss Earth's magnetic field, convection currents in the mantle, and plate tectonic activity.

The graduate examines weathering, erosion, and deposition of sediments by gravity, wind, water, and ice to describe landform and geologic features.

The graduate analyzes topographical and geologic maps to deduce landform and geologic features.

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Concepts in Science

Concepts in Science for undergraduates provides students seeking a bachelor's degree and initial teacher licensure in science education with an introduction to essential science themes present within and across all science disciplines, including chemistry, physics, biology, and the geosciences. These themes include comprehending the magnitude of the physical and natural world, analyzing and converting measurements, understanding the basic nature and behavior of matter and energy, examining atomic structure, identifying and naming basic types of chemical bonds, and analyzing and interpreting scientific data. Concepts in Science provides a solid foundation for future, in-depth scientific studies and should be taken prior to any other science content course. There are no prerequisites for this course.

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

Chemistry with Lab

Chemistry with Lab for undergraduates provides students seeking initial teacher licensure in middle grades science or secondary physics, biological science, or earth science with an introduction to the field of chemistry, the branch of science that studies the composition, structure, properties, and behavior of matter. Designed for those not majoring in chemistry education, this course highlights how the topics covered can be applied within various branches of science. This course provides students with opportunities to examine the electronic structure of atoms, study periodic trends, name chemical compounds, write chemical formulas, determine the structure of molecules, balance chemical reactions, and discover the changing states of matter. Laboratory experiences facilitate the study of matter and the application of laboratory safety and maintenance procedures. Concepts in Science for undergraduates is a prerequisite for this course.

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 explains how chemistry is applied within other sciences to understand its relevance within the physical and natural world.

The graduate conducts safe and effective investigations to test hypotheses and draw conclusions.

The graduate determines the electronic structure of atoms and periodic trends to compare the properties of various substances.

The graduate names basic compounds, using the periodic table and IUPAC rules, to identify their composition.

The graduate explains how chemical bonds and electron orientation impact the structures and behavior of molecules to understand the composition of matter.

The graduate balances chemical equations to follow the Law of Conservation of Matter.

The graduate determines quantities of heat released or absorbed during chemical reactions to examine relationships between heat and other forms of energy.

The graduate explains how matter changes from one state to another to determine the causes and effects of such transformations.

Geosciences Content

Geology II: Earth Systems

Geology II: Earth Systems provides undergraduate students seeking licensure or endorsement in secondary science education with an examination of the geosphere, atmosphere, hydrosphere, biosphere, and the dynamic equilibrium of these systems over geologic time. This course also examines the history of Earth and its life-forms, with an emphasis in meteorology. Geology I: Physical is a prerequisite for this course.

This course covers the following competencies:

Earth Science: Content Knowledge

This course covers the advanced content knowledge that a secondary earth science teacher is expected to know and understand. Topics include basic scientific principles of earth and space sciences, tectonics and internal earth processes, earth materials and surface processes, history of the Earth and its life-forms, Earth's atmosphere and hydrosphere, and astronomy.

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 synthesizes concepts and processes from across the earth and space sciences to generate a comprehensive understanding of the field.

The graduate verifies that they possess the requisite earth and space sciences knowledge and skills by passing the earth and space sciences content knowledge test required to become a beginning teacher of secondary school earth and space science.

Science Education

Science, Technology, and Society

Science, Technology, and Society explores the ways in which science influences and is influenced by society and technology. Science is a humanistic and social endeavor and serves the needs of ever-changing societies by providing methods for observing, questioning, discovering, and communicating information about the physical and natural world. This course prepares educators to explain the nature and history of science, the various applications of science, and the scientific and engineering processes used to conduct investigations, make decisionsAysicae gnd his prepaeeruemrous apppace rresrthes9Jociety a

The graduate analyzes connections among the three dimensions of science instruction—disciplinary core ideas, crosscutting concepts, and science and engineering practices—to prepare and plan for instruction.

The graduate integrates technology into science activities to support student engagement and content mastery.

The graduate develops assessment strategies that measure three-dimensional science learning to determine the effectiveness of teaching and learning experiences.

The graduate develops lessons that integrate the three dimensions of science with applicable technologies to connect scientific concepts and phenomena.

The graduate develops plans for the use, storage, and maintenance of science materials and protective equipment and for the care of living organisms to comply with district, state, and federal safety, ethical, and legal standards for science teachers.

The graduate establishes an emergency response plan to prepare for potential emergency situations in the science learning environment.

Pedagogy

Secondary Reading Instruction and Interventions

Secondary Reading Instruction and Interventions explores the comprehensive, student-centered response to intervention (RTI) model used to identify and address the needs of learners in middle school and high school who struggle with reading comprehension and/or information retention. Course content provides educators with effective strategies designed to scaffold instruction and help learners develop increased skill in the following areas: reading, vocabulary, text structures and genres, and logical reasoning related to the academic disciplines. This course is designed to be taken after successful

and Presentation AND Instructional Planning and Presentation in Special Education.

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 explains how the Response to Intervention (RTI) approach identifies, monitors, and differentiates instruction to ensure that struggling readers obtain the appropriate support and interventions to improve academic progress.

The graduate develops effective vocabulary instruction to enhance students' reading comprehension in the content areas.

The graduate integrates knowledge of effective comprehension strategies to help students monitor and improve their own comprehension when reading.

The graduate integrates reading strategies that scaffold instruction for students when reading increasingly complex texts.

The graduate integrates reading assessments to make informed instructional and placement decisions.

Secondary Disciplinary Literacy

Secondary Disciplinary Literacy examines teaching strategies designed to help learners in middle and high school improve upon the literacy skills required to read, write, and think critically while engaging content in different academic disciplines. Themes include exploring how language structures, text features, vocabulary, and context influence reading comprehension across the curriculum. The course highlights strategies and tools designed to help teachers assess the reading comprehension and writing proficiency of learners and provides strategies to support students' reading and writing success in all curriculum areas. This course has no prerequisites.

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 between the basic strategies used to facilitate comprehension in the content areas and the specialized reading practices needed to comprehend text in a specific discipline.

The graduate integrates discipline-specific literacy instruction to help students understand the text structures, vocabulary, and language knowledge required for specific disciplines.

The graduate plans writing activities that promote understanding of discipline-specific content through the organization, analysis, and synthesis of ideas.

The graduate creates authentic learning tasks and activities that provide students with opportunities to demonstrate discipline specific understandings.

The graduate integrates instructional strategies and materials in disciplinary literacy practices to enhance student understanding within the disciplines.

Field Experience

Preclinical Experiences in Science

Preclinical Experiences in Science provides students the opportunity to observe and participate in a wide range of in-classroom teaching experiences in order to develop the skills and confidence necessary to be an effective teacher. Students will reflect on and document the 75 hours of in-classroom observation and experience in their performance assessments. Prior to entering the classroom for the observations, students will be required to meet several requirements including a cleared background check, passing scores on the state or WGU required basic skills exam and a completed resume.

This course covers the following competencies:

The graduate develops a classroom management plan that integrates best practices for engagement and motivation.

The graduate evaluates the theoretical and practical implications of various content knowledge applications, tools of inquiry, instructional strategies, models and trends in the context of classrooms and schools.

The graduate collaborates with a mentor teacher in the planning and delivery of instruction in a classroom setting.

The graduate evaluates the theoretical and practical implications of various strategies that are intended to support the use of academic language, metacognition, and communication in classroom contexts.

The graduate evaluates the theoretical and practical applications of various assessment practices as they relate to student learning and instructional design.

The graduate evaluates various applications of technological integration in support of learning for all students.

The graduate evaluates the theoretical, legal, ethical, and practical applications of teaching students with exceptional learning needs.

The graduate evaluates educational observations and experiences connected to professional practices to support the development of appropriate teaching dispositions and a personal teaching philosophy.

Student Teaching

Student Teaching I in Secondary Education

Student Teaching I in Secondary Education is the first of two culminating experiences and is a required course for all initial licensure candidates. Student Teaching I is a supervised classroom-based activity in an authentic setting, which enables the candidate to demonstrate professional dispositions and ethics while collaborating with a practicing teacher and applying instructional strategies using co-teaching models. The candidate assumes increasing responsibilities while developing the skills and confidence necessary to be an effective teacher. Each candidate receives formative feedback through observations and a mid-term evaluation on the relevance of required activities, how culturally engaging the activities are, and how successful each candidate is in teaching each student. Each candidate is also evaluated on the ability to think about, analyze, and modify classroom actions as needed, and on a willingness to take risks and experiment with materials and methods that may be new or that may challenge your cultural knowledge.

This course covers the following competencies:

The learner implements the full cycle of teaching while exhibiting professional dispositions and ethics.

The learner analyzes feedback and data from observations and evaluations to identify opportunities for improvement.

Student Teaching II in Secondary Education

Student Teaching II in Secondary Education is the second of two culminating experiences and is a required course for all initial licensure candidates. Student Teaching II is a supervised classroom-based activity in an authentic setting, which enables the candidate to demonstrate professional dispositions and ethics while collaborating with a practicing teacher and applying instructional strategies using co-teaching models. The candidate assumes increasing responsibilities while developing the skills and confidence necessary to be an effective teacher. Each candidate receives formative feedback through observations and a final evaluation on the relevance of required activities, how culturally engaging the activities are, and how successful each candidate is in teaching each student. Each candidate is also evaluated on the ability to think about, analyze, and modify classroom actions as needed, and on a willingness to take risks and experiment with materials and methods that may be new or that may challenge your cultural knowledge. The final evaluation in Student Teaching II is

the determining factor in applying for licensure as a professional educator.

This course covers the following competencies:

> *The learner engages in a continual improvement process in order to advance learner outcomes and personal professional practice.*

> *The learner plans content-based instruction that supports student learning objectives.*

> *The learner integrates instructional strategies to address the needs of all students and meet the learning goals and objectives.*

> *The learner assesses student learning to monitor progress, engage learners in their own growth, and guide decision-making.*

Demonstration Teaching

Teacher Performance Assessment in Science

Teacher Performance Assessment in Science course is a culmination of the wide variety of skills learned in the Teachers College at WGU. In order to be a competent and independent classroom teacher, students will showcase a collection of

This course is eligible for an In Progress grade. Please see the Grading Scale Policy for more information.

This course covers the following competencies:

> *The graduate evaluates the teaching context to accommodate student differences to plan for instruction and assessment.*

> *The graduate plans learning environments that support individual learning, collaboration, and positive social interaction.*

> *The graduate plans comprehensive learning segments of instruction and assessment that align with standards and the needs of students.*

> *The graduate applies instructional strategies that promote learning, engage students, and provide differentiated instruction.*

> *The graduate integrates strategies to develop academic language that facilitates effective student participation and engagement in learning.*

> *The graduate utilizes assessment data to profile student learning, communicate information about student progress and achievement, and guide and modify instruction.*

> *The graduate evaluates teaching experiences including the planning and implementing of curriculum and instruction through ongoing reflection.*

Professional Portfolio

Professional Portfolio requires candidates to create an online teaching portfolio that demonstrates professional beliefs, growth, and effective teaching practices from the Demonstration Teaching experience. The portfolio includes reflective essays (educational beliefs, professional growth, and collaboration with stakeholders) and professional artifacts (resume and artifacts with commentary on academic language, systems of student support, education technology, and professional

This course is eligible for an In Progress grade. Please see the Grading Scale Policy for more information.

This course covers the following competencies:

> *The graduate recommends improvements for instruction and professional practice through personal reflection.*

> *The graduate integrates technology into classroom learning experiences to enhance student learning and monitor academic progress.*

> *The graduate demonstrates ethical responsibilities and appropriate teaching dispositions, including those outlined in the Western Governors University Teachers College Code of Ethics.*

> *The graduate recommends strategies that support the development of academic language for all students.*

> *The graduate integrates a variety of strategies and resources to differentiate instruction and meet the needs of diverse learners.*

> *The graduate develops appropriate plans for professional growth in subject matter knowledge and pedagogical skills, including habits and skills of continual inquiry and learning.*

Cohort Seminar

Cohort Seminar provides mentoring and supports teacher candidates during their demonstration teaching period by providing weekly collaboration and instruction related to the demonstration teaching experience. It facilitates their demonstration of competence in becoming reflective practitioners, adhering to ethical standards, practicing inclusion in a diverse classroom, exploring community resources, building collegial and collaborative relationships with teachers, and

This course is eligible for an In Progress grade. Please see the Grading Scale Policy for more information.

This course covers the following competencies:

> *The graduate demonstrates the ability to positively impact student learning through work samples, student artifacts, D 3 >>BDuPu1guy*

Accessibility and Accommodations

Western Governors University is committed to providing equal access to its academic programs to all qualified

collaboration, and academic accommodations for students with disabilities and other qualifying conditions under the Americans with Disabilities Act (ADA). WGU encourages student to complete the Accommodation Request Form as soon as they become aware of the need for an accommodation. Current and prospective students can reach the Accessibility Services team Monday through Friday 8:00 a.m. to 5:00 p.m. MST at 1-877-HELP-WGU (877-435-7948) x5922 or at ADASupport@wgu.edu.

Need More Information? WGU Student Services

WGU's Student Services team is dedicated exclusively to helping you achieve your academic goals. The Student Services office is available during extended hours to assist with general questions and requests. The Student Services team members help you resolve issues, listen to student issues and concerns, and

Student Services team members also assist with unresolved concerns to find equitable resolutions. To contact the Student Services team, please feel free to call 877-435-7948 or e-mail studentservices@wgu.edu. We are available Monday through Friday from 6:00 a.m. to 10:00 p.m.,

If you have inquiries or concerns that require technical support, please contact the WGU IT Service Desk. The IT Service Desk is available Monday through Friday, 6:00 a.m. to 10:00 p.m. and Saturday and Sunday, 10:00 a.m. to 7:00 p.m., mountain standard time. To contact the IT Service Desk, please call 1-877-HELP-WGU (877-435-7948) or e-mail servicedesk@wgu.edu. The support teams are generally

For the most current information regarding WGU support services, please visit "Student Support" on the Student Portal at http://my.wgu.edu.