



Program Guidebook

Bachelor of Arts, Science (5-9)

The Bachelor of Arts in Science (5-9) is a competency-based degree program that prepares students to be licensed as science teachers in grades 5-9. All work in this degree program is online with the exception of the Demonstration Teaching and in-classroom field experience components. The program consists of work in General Education, Foundations of Teaching, General Science Content, Biology Content, Geosciences Content, Pedagogy, Science Education, Field Experience, and Demonstration Teaching.

Understanding the Competency-Based Approach

Practically speaking, what does it mean when we say that WGU's programs are competency-based? Unlike traditional universities, WGU does not award degrees based on credit hours or on a certain set of required courses. Instead, you will earn your degree by demonstrating your skills, knowledge, and understanding of important concepts through a series of carefully designed courses.

Progress through your degree program is governed not by classes but by satisfactory completion of the required courses that demonstrate your mastery of the competencies. Of course, you will need to engage in learning experiences as you brush up on competencies or develop knowledge and skills in areas in which you may be weak. For this learning and development, WGU has a rich array of learning resources in which you may engage under the direction of your student mentor. You will work closely with your mentor to schedule your program for completing the courses. You will also work closely with additional faculty members as you proceed through courses of study that are designed to lead you through the content you must master in order to pass the assessment(s) for each course.

The benefit of this competency-based system is that it makes it possible for people who are knowledgeable about a particular subject to make accelerated progress toward completing a WGU 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, indeed, 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 number of credits hours on your transcript.

Accreditation

Western Governors University is the only university in the history of American higher education to have earned accreditation from four regional accrediting commissions. WGU's accreditation was awarded by (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). The WGU Teachers College is accredited by the National Council for Accreditation of Teacher Education (NCATE). The nursing programs are accredited by the Commission on Collegiate Nursing Education (CCNE). The Health Informatics program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

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 plan to devote each week to study.

Students will 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 may need to take an online class or participate in a study module to acquire the knowledge and skills needed to pass the 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, you will complete preassessments to help your mentor form a profile of your prior knowledge and experience for use in creating your personalized Degree Plan.

WGU's Mentoring Approach

The mentoring approach is a powerful component of the WGU educational experience. When you enroll at WGU, you will begin interacting with your student mentor, course mentors, and other support staff. Your student mentor will meet with you on a regular basis and take an active role and a personal interest in your success. Your student mentor will be your point of contact throughout your program and will be available to communicate with you via e-mail or phone. Your mentor will help you set weekly study goals, guide you to learning materials, help you understand what to expect in courses, and motivate you to work hard to complete your program. When you have questions or concerns, your mentor will help you resolve them.

As you work on each course, you will also be assigned course mentors. These course mentors are content experts who can discuss your learning for the course, help you find answers to content questions, and help you navigate the course successfully. Your course mentors are available to meet with you individually to provide personal support. You can also communicate with them by posting in the online learning community and participating in live discussion sessions such as webinars and cohorts.

Working closely with your own personal mentoring team will help you engage in the learning process and be a successful student while at WGU.

Connecting with Other Mentors and Fellow Students

As you proceed through your Degree Plan, you will have direct contact with multiple faculty members. These communications can take a variety of forms, including participation in one-on-one discussions, chats in the learning communities, and live cohort and webinar opportunities. As a WGU student, you will have access to your own personal myWGU Student Portal, which will provide a gateway to your courses of study, learning resources, and learning communities where you will have interactions with faculty and other students.

The resources in each course are specifically designed to support you as you develop competencies in preparation for your assessments through the utilization of reading materials, videos, tutorials, cohort opportunities, community discussions, and live discussions that are guided by content experts. You will access your program community during your orientation course to network with peers who are enrolled in your program and to receive continued support through professional enrichment and program-specific chats, blogs, and discussions. WGU also provides Student Services Associates to help you and your mentor solve any special problems that may arise.

Orientation

The WGU orientation course focuses on acquainting you with WGU's competency-based model, distance education, technology, and other resources and tools available for students. You will also utilize WGU program and course communities, participate in activities, and get to know other students at WGU. The orientation course must be completed before you can start your first term at WGU.

Transferability of Prior College Coursework

Because WGU is a competency-based institution, it does not award degrees based on credits but rather on demonstration of competency. However, if you have completed college coursework at another accredited institution, or if you have completed industry certifications, you may have your transcripts and certifications evaluated to determine if you are eligible to receive some transfer credit. The guidelines for determining what credits will be granted varies based on the degree program. Students entering graduate programs must have their undergraduate degree verified before being admitted to WGU. To review more information in regards to transfer guidelines based on the different degree programs, you may visit the Student Handbook found at the link below and search for "Transfer Credit Evaluation." Within the Teachers College, there may be additional courses to meet state 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 relevant and current.

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 possess may help you accelerate the time it takes to complete your degree program.

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 student mentor will review the progress you have made and revise your Degree Plan for your next six-month term.

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 eight (8) competency units each term, and undergraduate students must enroll in at least twelve (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 equivalent to a “B” grade or better.

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 competency units while others may be as large as 12 competency units.

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 for federal financial aid.

Courses

Your Degree Plan includes courses needed to complete your program. To obtain your degree, you will be required to demonstrate your skills and knowledge by completing the assessment(s) for each course. In general there are two types of assessments: performance assessments and objective assessments. Performance assessments contain, in most cases, multiple scored tasks such as projects, essays, and research papers. Objective assessments include multiple-choice items, multiple-selection items, matching, short answer, drag-and-drop, and point-and-click item types, as well as case study and video-based items. Certifications verified through third parties may also be included in your program. More detailed information about each assessment is provided in each course of study.

External Content & Basic Skills Exams

Western Governors University requires that candidates pass the state-mandated content exam that aligns with their WGU program in addition to a basic skills exam (initial licensure programs only). Specific information regarding required content and basic skills exams required for each program and state can be found in the WGU Student Handbook. In many cases, it is the candidates’ responsibility to register and pay for the required exams and submit their official passing score reports to WGU.

State Licensure Requirements

Many states have specific licensure requirements that are not part of WGU programs that you will have to fulfill in addition to the degree requirements of your program. These state licensure requirements might include, but are not limited to: subject-specific licensure exams, state-specific teacher performance assessments, course work related to state history, basic skills exams, and background clearances. The WGU Student Handbook outlines the credentialing requirements of each state. Teacher candidates should consult the applicable section to become familiar with their state’s expectations regarding licensure.

Learning Resources

WGU works with many different educational partners, including enterprises, publishers, training companies, and higher educational institutions, to provide high-quality and effective learning resources that match the competencies you're developing. These vary in type, and may be combined to create the best learning experience for your course. A learning resource can be an e-textbook, online module, study guide, simulation, virtual lab, tutorial, or a combination of these. The cost of most learning resources are included in your tuition and Learning Resource Fee. They can be accessed or enrolled for through your courses. Some degree-specific resources are not covered by your tuition, and you will need to cover those costs separately. WGU also provides a robust library to help you obtain additional learning resources, as needed.

Mobile Compatibility:

The following article provides additional details about the current state of mobile compatibility for learning resources at WGU. It includes a list that can be referenced to determine the mobile friendliness of all core course materials used in a program.

[Student Handbook article: Can I use my mobile device for learning resources?](#)

Standard Path

As previously mentioned, competency units (CUs) have been assigned to each course in order to measure your academic progress. If you are an undergraduate student, you will be expected to enroll in a minimum of 12 competency units each term. Graduate students are expected to enroll in a minimum of 8 competency units each term. A standard plan for a student for this program who entered WGU without any transfer units would look similar to the one on the following page. Your personal progress can be faster, but your pace will be determined by the extent of your transfer units, your time commitment, and your determination to proceed at a faster rate.

Standard Path *for* Bachelor of Arts, Science (5-9)

Course Description	CUs	Term
Foundational Perspectives of Education	3	1
Intermediate Algebra	3	1
English Composition I	3	1
Integrated Physical Sciences	3	1
Natural Science Lab	2	2
College Algebra	4	2
General Chemistry I	4	2
General Chemistry Laboratory I	1	2
Introduction to Biology	3	2
English Composition II	3	3
Critical Thinking and Logic	3	3
Introduction to Communication	3	3
Human Growth and Development Across the Lifespan	3	3
Psychology for Educators	4	4
Heredity and Genetics	3	4
Survey of United States History	3	4
Introduction to Humanities	3	4
Fundamentals of Diversity, Inclusion, and Exceptional Learners	4	5
Survey of United States Constitution and Government	3	5
General Physics	5	5
Classroom Management, Engagement, and Motivation	4	6
Science, Technology, and Society	5	6
Astronomy	3	6
Ecology and Environmental Science	3	7
Earth: Inside and Out	4	7
Middle School Science: Content Knowledge	2	7
Educational Assessment	3	7
Introduction to Instructional Planning and Presentation	3	8
Secondary Reading Instruction and Interventions	3	8
Instructional Planning and Presentation in Science	3	8
Secondary Disciplinary Literacy	3	8

Course Description	CUs	Term
Preclinical Experiences in Science	3	9
Science Methods	4	9
Supervised Demonstration Teaching in Science, Observations 1 and 2	3	10
Supervised Demonstration Teaching in Science, Observation 3 and Midterm	3	10
Supervised Demonstration Teaching in Science, Observations 4 and 5	3	10
Supervised Demonstration Teaching in Science, Observation 6 and Final	3	10
Teacher Performance Assessment in Science	2	10
Professional Portfolio	1	10
Cohort Seminar	3	10

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. As these changes are implemented, WGU will ensure that the length of the student's degree program (i.e., total competency unit requirements) will not increase and that competency units already earned will be applied to the updated program version. When program requirements are updated, students returning from term break or returning after withdrawal from the university will be expected to re-enter the updated version of the program.

Areas of Study for Bachelor of Arts, Science (5-9)

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.

Foundations of Teaching

Foundational Perspectives of Education

This course provides an introduction to the historical, legal, and philosophical foundations of education. Current educational trends, reform movements, major federal and state laws, legal and ethical responsibilities, and an overview of standards-based curriculum are the focus of the course. The course of study presents a discussion of changes and challenges in contemporary education. It covers the diversity found in American schools, introduces emerging educational technology trends, and provides an overview of contemporary topics in education.

This course covers the following competencies:

- *The graduate evaluates the impact of various educational philosophies on historical and current educational trends.*
- *The graduate evaluates the impact of various social issues and influences on students, teachers, instruction, and schools.*
- *The graduate evaluates the affordances and challenges of standards-based curriculum on students, teachers, instruction, and schools.*
- *The graduate analyzes the role of federal and state governance in determining standard educational practices and ensuring access to educational opportunities.*
- *The graduate analyzes the relationship of current trends in education and educational reform to historical foundations and evolution of the industry.*

Psychology for Educators

This course prepares candidates to meet the expectations of society and prepares future educators to support classroom practice with research-validated concepts. The course helps future educators to create a framework for refining teaching skills that are focused on the learner, through engaged inquiry of integrating theory, critical issues in psychology, classroom applications with diverse populations, assessment, educational technology, and reflective teaching.

This course covers the following competencies:

- *The graduate summarizes how educational psychology and related tools apply to the improvement of professional practice.*
- *The graduate explains how educational psychology and related theories inform educators and contribute to professional competence in the field.*
- *The graduate analyzes observed professional practices in relation to a personal teaching philosophy.*
- *The graduate explains the two-fold process and its relevance to lesson planning for student learning assessment, using teacher measures and professionally prepared standardized tests.*
- *The graduate analyzes how various professional practices intended to support learners relate to theories of learning and development.*
- *The graduate summarizes how the different learning theories create a complex learning process from different perspectives.*
- *The graduate analyzes the theoretical and practical implications of various instructional strategies and models*

intended to support teaching and learning.

- *Graduates explain approaches to instruction for creating objectives and helping students to obtain the objectives.*
- *The graduate analyzes the theoretical and practical implications of various instructional practices intended to support the use of educational psychology in the classroom.*
- *The graduate relates age-level characteristics and group characteristics of mental ability, learning styles, and gender to their potential significance for educators.*

Fundamentals of Diversity, Inclusion, and Exceptional Learners

Students will learn the history of inclusion and develop practical strategies for modifying instruction, in accordance with legal expectations, to meet the needs of a diverse population of learners. This population includes learners with disabilities, gifted and talented learners, culturally diverse learners, and English language learners.

This course covers the following competencies:

- *The graduate analyzes the theoretical and practical implications of various instructional practices intended to support equity and the teaching of diverse learners.*
- *The graduate analyzes the theoretical and practical implications of various instructional practices intended to support diversity and inclusion in the classroom.*
- *The graduate integrates knowledge of characteristics, contexts, and conditions of students in the process to address the needs of multicultural learners, exceptional learners, atypical development, English language learners, and gifted and talented learners and to implement equity pedagogy into their practice.*
- *The graduate analyzes the effectiveness of instructional practices intended to address atypical development and exceptional learning.*
- *The graduate selects appropriate strategies to effectively and ethically engage with students, families, administrators, and other stakeholders in support of the education of diverse learners.*
- *The graduate selects appropriate technology tools and accommodations to support the education of diverse learners.*
- *The graduate recommends best practices to plan classroom instruction in a supportive learning environment for ELL students.*
- *The graduate applies appropriate policies, programs, accepted practices, and legal requirements to classroom and instructional practices as they relate to special education, English language learners, and gifted and talented learners.*

Classroom Management, Engagement, and Motivation

Students will learn the foundations for effective classroom management as well as strategies for creating a safe, positive learning environment for all learners. Students will be introduced to systems that promote student self-awareness, self-management, self-efficacy, and self-esteem. In this course, students will engage practical application via 10 hours of video classroom observations. Students will reflect on how teachers use rules/procedures to maximize student learning and on what makes a highly effective classroom environment. As part of a culminating experience in this course, students will, through the video observation reflections, describe their current teaching philosophy related to classroom environment and management.

This course covers the following competencies:

- *The graduate designs emotionally safe classroom environments that foster learning and deal effectively with emotions, conflicts, and serious behavior problems.*
- *The graduate analyzes the legal and ethical responsibilities of teachers in the classroom.*
- *The graduate appropriately uses technology to enhance teaching, learning, engagement, and motivation.*
- *The graduate analyzes major strategies of classroom management as they apply to specific areas of specialization.*
- *The graduate generates appropriate instructional interventions for a variety of students and learning contexts.*

- *The graduate evaluates best practices that encourage positive social interaction, self-motivation, and active engagement in learning environments.*
- *The graduate evaluates various uses of academic language and classroom discourse to determine possible theoretical and practical implications for instructional practice and student learning.*
- *The graduate incorporates evidence-based strategies and materials in the design of classroom management plans.*
- *The graduate integrates strategies for managing routine misbehaviors into classroom management strategies and procedures.*
- *The graduate analyzes the theoretical and practical implications of various instructional practices intended to support classroom management.*
- *The graduate analyzes classroom management strategies and approaches that promote student self-awareness, self-management, self-efficacy, and self-esteem.*

Educational Assessment

Educational Assessment assists students in making appropriate data-driven instructional decisions by exploring key concepts relevant to the administration, scoring, and interpretation of classroom assessments. Topics include ethical assessment practices, designing assessments, aligning assessments, and utilizing technology for assessment.

This course covers the following competencies:

- *The graduate analyzes assessment information to inform instructional decision-making and to support and adapt instruction for all students, including those individuals with exceptional learning needs.*
- *The graduate evaluates assessment results to make informed educational recommendations, including those for program and school improvement.*
- *The graduate applies effective methods and strategies in the planning, development, and evaluation of student assessment.*
- *The graduate recommends effective strategies for ensuring the responsible and ethical assessment of students.*
- *The graduate effectively and appropriately communicates the results of assessments with stakeholders, including students.*
- *The graduate plans and designs assessments aligned to learning outcomes, standards, benchmarks, and objectives.*

General Education

Intermediate Algebra

This course provides an introduction of algebraic concepts and the development of the essential groundwork for College Algebra. Topics include: A review of basic mathematical skills, the real number system, algebraic expressions, linear equations, graphing, exponents and polynomials

This course covers the following competencies:

- *The graduate solves linear equations and applications.*
- *The graduate translates, simplifies, and evaluates algebraic expressions.*
- *The graduate determines absolute values, adds and subtracts integers, multiplies and divides real numbers, and determines whether or not a particular integer is a solution.*
- *The graduate graphs ordered pairs and lines on the Cartesian coordinate system.*
- *The graduate identifies, evaluates, and multiplies exponents and polynomials.*

English Composition I

English Composition I introduces learners to the types of writing and thinking that are valued in college and beyond.

Students will practice writing in several genres with emphasis placed on writing and revising academic arguments. Instruction and exercises in grammar, mechanics, research documentation, and style are paired with each module so that writers can practice these skills as necessary.

Comp I is a foundational course designed to help students prepare for success at the college level.

There are no prerequisites for English Composition I.

This course covers the following competencies:

- *The graduate integrates credible and relevant sources into written arguments.*
- *The graduate uses appropriate writing and revision strategies*
- *The graduate composes an appropriate argumentative essay for a given context.*
- *The graduate composes an appropriate narrative for a given context.*
- *The graduate appropriately uses a given writing style.*
- *The graduate selects appropriate rhetorical strategies that improve writing and argumentation.*
- *The graduate applies appropriate grammatical rules, sentence structure, and writing conventions.*

College Algebra

This course provides further application and analysis of algebraic concepts and functions through mathematical modeling of real-world situations. Topics include: real numbers, algebraic expressions, equations and inequalities, graphs and functions, polynomial and rational functions, exponential and logarithmic functions, and systems of linear equations.

This course covers the following competencies:

- *The graduate simplifies and factors polynomial expressions, and solves polynomial equations.*
- *The graduate solves systems of linear equations and their related applications.*
- *The graduate simplifies rational, radical, and quadratic expressions, solves corresponding equations, and extends this knowledge to the study of functions.*
- *The graduate combines functions, finds inverse functions, solves exponential and logarithmic equations and functions.*
- *The graduate classifies and performs operations on real numbers; solves linear equations and inequalities; connects a linear equation to its graph; and identifies a function.*

English Composition II

English Composition II introduces undergraduate students to research writing. It is a foundational course designed to help students prepare for advanced writing within the discipline and to complete the capstone. Specifically, this course will help students develop or improve research, reference citation, document organization, and writing skills. English Composition I or equivalent is a prerequisite for this course.

This course covers the following competencies:

- *The graduate applies steps of the writing process appropriately to improve quality of writing.*
- *The graduate composes an argumentative research paper.*
- *The graduate evaluates the quality, credibility, and relevance of evidence in order to integrate evidence into a final research paper.*

Critical Thinking and Logic

Reasoning and Problem Solving helps students internalize a systematic process for exploring issues that takes them beyond an unexamined point of view and encourages them to become more self-aware thinkers by applying principles of problem identification and clarification, planning and information gathering, identifying assumptions and values, analysis and interpretation of information and data, reaching well-founded conclusions, and identifying the role of critical thinking in the disciplines and professions.

This course covers the following competencies:

- *The graduate recognizes the value of critical thinking in identifying and understanding the underlying structures of the disciplines and professions.*
- *The graduate evaluates different sources representing a range of perspectives on a problem in order to weigh the implications and consequences of different solutions to the problem.*
- *The graduate synthesizes information to understand a problem's complexities and potential solutions, and then evaluates the reasoning and evidence in support of these different solutions.*
- *The graduate identifies internal and external biases and assumptions related to a problem, and evaluates the influence and validity of these biases and assumptions.*
- *The graduate logically brings together information to arrive at a viable solution to a problem, and then clearly and accurately communicates the results.*
- *The graduate analyzes open-ended problems by learning about the problem and evaluating the accuracy and relevance of different perspectives on the problem.*

Introduction to Communication

This introductory communication course allows students to become familiar with the fundamental communication theories and practices necessary to engage in healthy professional and personal relationships. Students will survey human communication on multiple levels and critically apply the theoretical grounding of the course to interpersonal, intercultural, small group, and public presentational contexts. The course also encourages students to consider the influence of language, perception, culture, and media on their daily communicative interactions. In addition to theory, students will engage in the application of effective communication skills through systematically preparing and delivering an oral presentation. By practicing these fundamental skills in human communication, students become more competent communicators as they develop more flexible, useful, and discriminatory communicative practices in a variety of contexts.

This course covers the following competencies:

- *The graduate applies foundational elements of effective communication.*
- *The graduate applies appropriate communication strategies in interpersonal and group contexts*
- *The graduate utilizes appropriate presentational communication strategies in personal and professional settings.*

Human Growth and Development Across the Lifespan

This course introduces students to human development across the lifespan. This will include an introductory survey of cognitive, psychological, and physical growth. Students will gain an understanding in regards to the emergence of personality, identity, gender and sexuality, social relationships, emotion, language, and moral development through life. This will include milestones such as education, achievement, work, dying, and death.

This course covers the following competencies:

- *The graduate analyzes human physical development from conception through birth.*
- *The graduate examines the processes of death, dying, and grieving.*
- *The graduate analyzes the physical, cognitive, and social development of humans during infancy.*
- *The graduate analyzes the physical, cognitive, and social development of humans during early childhood.*
- *The graduate analyzes the physical, cognitive, and social development of humans during middle childhood.*
- *The graduate analyzes the physical, cognitive, and social development of humans during middle adulthood.*
- *The graduate explains the physical, cognitive, and social development of humans during early adulthood.*
- *The graduate analyzes the physical, cognitive, and social development of humans during adolescence.*
- *The graduate analyzes the physical, cognitive, and social development of humans during late adulthood.*

- *The graduate explains guiding perspectives, theories, and influences on physical, cognitive, and social development across the lifespan.*

Survey of United States History

This course presents a broad and thematic survey of U.S. history from European colonization to the mid-twentieth century. Students will explore how historical events and major themes in American history have affected a diverse population.

This course covers the following competencies:

- *The graduate explains significant international and domestic challenges that the United States confronted since World War I.*
- *The graduate analyzes the colonial experience and the foundations of the American Revolution.*
- *The graduate analyzes the challenges of partisan politics and sectionalism in the Early Republic and Civil War eras.*
- *The graduate examines the major changes that defined the United States in the late-nineteenth and early-twentieth centuries.*

Introduction to Humanities

This introductory humanities course allows students to practice essential writing, communication, and critical thinking skills necessary to engage in civic and professional interactions as mature, informed adults. Whether through studying literature, visual and performing arts, or philosophy, all humanities courses stress the need to form reasoned, analytical, and articulate responses to cultural and creative works. Studying a wide variety of creative works allows students to more effectively enter the global community with a broad and enlightened perspective.

This course covers the following competencies:

- *The graduate analyzes the primary contributions and characteristics of humanities during the Classical period.*
- *The graduate analyzes the primary contributions and characteristics of humanities during the Romantic period.*
- *The graduate assesses the development of humans through the study of key concepts, disciplines, and primary influences of the humanities.*
- *The graduate analyzes the primary contributions and characteristics of humanities during the Renaissance.*
- *The graduate analyzes the primary contributions and characteristics of humanities within the Neoclassical and Enlightenment period.*
- *The graduate analyzes the primary contributions and characteristics of humanities during the Realist movement.*

Survey of United States Constitution and Government

This course is an introduction to the U.S. Constitution and the U.S. government. Topics include (1) structure and relevance of the U.S. Constitution, (2) structure and function of governmental branches, and (3) political participation and policy making.

This course covers the following competencies:

- *The graduate analyzes the role of individuals, interest groups, and political parties in the U.S. electoral system.*
- *The graduate analyzes the powers of each branch of government and the relationships among them.*
- *The graduate analyzes the formation of personal and collective political opinions and the influence of the media.*
- *The graduate analyzes the division of power between national and state governments.*
- *The graduate analyzes the development and protection of individual civil liberties and civil rights.*
- *The graduate analyzes the dilemmas and principles of government.*
- *The graduate analyzes the central themes and founding principles of the U.S. Constitution and the U.S. government.*

General Science Content

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 and everyday applications of physical science concepts to help students integrate conceptual knowledge with practical skills.

This course covers the following competencies:

- *The graduate 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.*
- *The graduate describes the nature and process of science.*
- *The graduate examines applications of physics including fundamental concepts such as forces, motion, energy, and waves.*
- *The graduate examines applications of key chemistry concepts including the structure of matter and the behavior and conservation of matter in chemical reactions.*

Natural Science Lab

This course gives you an introduction to using the scientific method and engaging in scientific research to reach conclusions about the natural world. You will design and carry out an experiment to investigate a hypothesis by gathering quantitative data.

This course covers the following competencies:

- *The graduate accurately executes the process of scientific inquiry through experimentation in the natural world.*
- *The graduate draws conclusions based on academic research and scientific inquiry.*
- *The graduate evaluates academic sources for their credibility and relevance to a chosen research topic on a natural world phenomenon.*

General Chemistry I

Chemistry is the study of matter. Everything you see and many of the things you don't see are made up of atoms. By understanding these atoms and their interactions, chemists have been able to cure disease, travel to the moon, and feed a growing world. By understanding chemistry, you will find your own world expanded. You will find boiling water interesting and the back of the shampoo bottle fascinating. The National Science Teachers Association (NSTA) has published principles and standards that address important chemistry topics that should be covered through the K-12 curriculum. Many states have followed the NSTA's lead and are increasingly requiring that these concepts be taught to the students throughout the course of their science education. A firm grasp of the concepts covered in this course will allow you to confidently teach this material when you enter the classroom.

This course covers the following competencies:

- *The graduate predicts the nature of chemical bonds formed between atoms from various elemental groups.*
- *The graduate applies the principles of measurement and the concepts of matter and energy to solve problems.*
- *The graduate applies the modern atomic theory to explain the structure of atoms and periodic trends.*
- *The graduate determines quantities of materials consumed and produced in chemical reactions using moles and stoichiometry.*
- *The graduate analyzes the structure of atoms and compounds and applies systems for naming compounds.*

General Chemistry Laboratory I

In this course students will attain a solid understanding of fundamental chemistry concepts and a reasonable ability to solve chemical problems. Topics include measurement, elements and compounds, properties of matter and energy, the periodic

table and chemical nomenclature, quantities in chemistry, chemical reactions, the modern atomic theory, and the chemical bond. Laboratory work focuses on using effective laboratory techniques to examine the physical and chemical characteristics of matter.

This course covers the following competencies:

- *The graduate applies effective laboratory techniques to examine physical and chemical characteristics of matter.*

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:

- *The graduate analyzes interdependencies of organisms and their environments.*
- *The graduate analyzes the characteristics and classification of living organisms.*
- *The graduate analyzes different types of cells based on their structures and biological functions.*
- *The graduate analyzes the basic chemical composition of cells and the basic processes that happen at the cellular level.*
- *The graduate analyzes the biological basis for and patterns of heredity and gene expression.*

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:

- *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.*

Ecology and Environmental Science

Ecology and Environmental Science is an introductory course for undergraduate students seeking initial licensure or endorsement in science education for grades 5–12. 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:

- *The graduate assesses the challenges associated with resource management in order to compare potential sustainable solutions.*
- *The graduate examines ecosystems to analyze the relationship between populations and the environment.*
- *The graduate analyzes biogeochemical cycles to explain the importance of these cycles to global processes.*
- *The graduate examines the flow of energy in an ecosystem to assess how changes in that flow affect biodiversity.*
- *The graduate researches environmental challenges to discuss potential solutions.*

Middle School Science: Content Knowledge

This course covers the content knowledge that a middle-level science teacher is expected to know and understand. Topics include scientific methodologies, history of science, basic science principles, physical sciences, life sciences, Earth and

space sciences, and the role of science and technology and their impact on society.

This course covers the following competencies:

- *The graduate verifies that they possess the requisite middle school science knowledge and skills by passing the middle school science content knowledge test required to become a beginning teacher of middle school science.*
- *The graduate synthesizes concepts and processes from across middle school science to generate a comprehensive understanding of the subject.*

Biology Content

Heredity and Genetics

Heredity and Genetics is an introductory course for undergraduate students seeking initial licensure or endorsement in biology education for grades 5–12. This course addresses the basic principles of heredity and the function of molecular genetics. Topics include Mendelian and non-Mendelian inheritance and population genetics. This course has no prerequisites.

This course covers the following competencies:

- *The graduate examines the structure and expression of genes to explain resulting phenotypes.*
- *The graduate researches applications of molecular genetics to analyze chromosomal disorders and mutations.*
- *The graduate researches the biological basis of inheritance to analyze patterns of heredity.*
- *The graduate applies the principles of population genetics to determine characteristics of a population.*

Science Education

Science, Technology, and Society

Science, Technology, and Society explores the ways in which science influences and is influenced by society and technology. A humanistic and social endeavor, science 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 decisions, and solve problems. There are no prerequisites for this course.

This course covers the following competencies:

- *The graduate conducts investigations in science to solve open-ended problems using appropriate scientific methods.*
- *The graduate analyzes the historical development of science, including how scientific knowledge evolves.*
- *The graduate analyzes the various ways in which science, technology, and society are interrelated.*
- *The graduate analyzes the nature of science, including how science distinguishes itself from other ways of knowing.*
- *The graduate analyzes the relationships among themes that appear across multiple scientific ideas.*
- *The graduate formulates testable hypotheses for scientific investigations.*
- *The graduate analyzes socially relevant scientific issues to make informed decisions based on data and context.*
- *The graduate uses technology tools and mathematics to improve investigations and the communication of results.*
- *The graduate analyzes the principles, processes, and assumptions of investigations in science to engage students in the nature of inquiry.*

Science Methods

Science Methods provides undergraduate students seeking initial licensure or endorsement in the sciences for grades 5-12 with an introduction to science teaching methods and laboratory safety training. Course content focuses on designing and

teaching with the three dimensions of science: disciplinary core ideas, crosscutting concepts, and science and engineering practices. Laboratory safety training and certification will include the proper use of personal protective equipment and safe laboratory practices and procedures in science classrooms. This course has no prerequisites.

This course covers the following competencies:

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

Geosciences Content

Astronomy

This course provides undergraduate students seeking initial licensure or endorsement in geosciences for grades 5–12 with essential knowledge of astronomy and explores Western history and basic physics of astronomy; phases of the moon and seasons; composition and properties of solar system bodies; stellar evolution and remnants; properties and scale of objects and distances within the universe; and introductory cosmology. A prerequisite for this course is General Physics.

This course covers the following competencies:

- *The graduate applies tools and techniques necessary to study astronomical objects and events.*
- *The graduate discusses classification and life cycle of stars, such as our sun and its fate, to explain the diversity of celestial objects, including stellar remnants.*
- *The graduate evaluates composition and structure of our solar system to describe Earth's place and evolution.*
- *The graduate traces Western history of astronomy to place key concepts and famous scientists in cultural context.*
- *The graduate critiques the structure, composition, and classification of the Milky Way and other galaxies as well as concepts of cosmology and the Doppler effect of light to explain the physical evolution of the universe.*

Earth: Inside and Out

Earth: Inside and Out explores the ways in which our dynamic planet evolved, and the processes and systems that continue to shape it. Though the geologic record is incredibly ancient, it has only been studied intensely since the end of the nineteenth century. Since then, research in fields such as geologic time, plate tectonics, climate change, exploration of the deep sea floor, and the inner earth have vastly increased our understanding of geological processes. There are no prerequisites for this course.

This course covers the following competencies:

- *The graduate evaluates the interaction of the atmosphere, ocean, and other Earth systems to discuss the effect of human activities on climate.*
- *The graduate hypothesizes how discoveries of life supported by energy from the earth will influence scientific exploration in order to predict future directions of scientific research.*
- *The graduate evaluates what rocks tell us about the composition of the early atmosphere to explain the*

interconnectedness of the Earth's systems.

- *The graduate examines how computer modeling is used to describe and study mantle convection in order to evaluate convection models.*
- *The graduate evaluates how past and current science is applied to the study and dating of rocks to observe and describe geologic features.*

Pedagogy

Introduction to Instructional Planning and Presentation

Students will develop a basic understanding of effective instructional principles and how to differentiate instruction in order to elicit powerful teaching in the classroom.

This course covers the following competencies:

- *The graduate selects appropriate and effective instructional strategies to support the full range of learners.*
- *The graduate evaluates various influences on learning and instruction to ensure positive and engaging learning experiences.*
- *The graduate analyzes the role of assessment in the cycle of instruction.*
- *The graduate analyzes the relationships among technology, pedagogy, instruction, and learning.*
- *The graduate selects appropriate and effective tools for communicating with students, colleagues, families, and others to support and facilitate student success and achievement.*
- *The graduate evaluates appropriate and effective learning resources that support student learning.*
- *The graduate incorporates best principles and practices into the design of learning outcomes.*
- *The graduate applies research-based and evidence-based instructional design and presentation principles in the evaluation of effective unit and lesson plans.*
- *The graduate applies strategies to develop academic language through learning and instruction.*

Secondary Reading Instruction and Interventions

Secondary Reading Instruction and Intervention explores the comprehensive, student-centered Response to Intervention (RTI) assessment and intervention model used to identify and address the needs of learners in grades 5–12 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 has no prerequisites.

This course covers the following competencies:

- *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 integrates knowledge of effective comprehension strategies to help students monitor and improve their own comprehension when reading.*
- *The graduate develops effective vocabulary instruction to enhance students' reading comprehension in the content areas.*
- *The graduate integrates reading assessments to make informed instructional and placement decisions.*
- *The graduate integrates reading strategies that scaffold instruction for students when reading increasingly complex texts.*

Instructional Planning and Presentation in Science

Students will continue to build instructional planning skills with a focus on selecting appropriate materials for diverse learners, selecting age- and ability- appropriate strategies for the content areas, promoting critical thinking, and establishing both short- and long- term goals

This course covers the following competencies:

- *The graduate integrates appropriate and effective presentation strategies in the planning or delivery of lessons for a variety of learners.*
- *The graduate effectively evaluates and integrates standards, learning outcomes, assessment, instructional strategies, and learning resources in the development and modification of unit and lesson plans.*
- *The graduate integrates research derived from evidence-based practice into the planning and delivery of meaningful, relevant, and engaging instruction and assessment.*
- *The graduate uses technology appropriately in the planning and delivery of meaningful, relevant, and engaging instruction.*
- *The graduate develops active learning opportunities for a variety of students to promote meaningful, relevant, and engaging student-focused instruction.*
- *The graduate effectively and appropriately uses data, including assessment results, in the planning, delivery, and evaluation of meaningful, relevant, and engaging instruction.*
- *The graduate develops instructional materials that effectively incorporate prior learning and cross-curricular learning outcomes to promote relevant, meaningful, and engaging instruction.*
- *The graduate incorporates various grouping strategies into instruction to facilitate learning for all students.*
- *The graduate plans safe and engaging learning environments that foster cultural and community understanding, collaboration, student voice, positive social interactions, and that include individuals with exceptional learning needs.*

Secondary Disciplinary Literacy

Secondary Disciplinary Literacy examines teaching strategies designed to help learners in grades 5-12 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. Course content 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:

- *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 integrates instructional strategies and materials in disciplinary literacy practices to enhance student understanding within the disciplines.*
- *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 creates authentic learning tasks and activities that provide students with opportunities to demonstrate discipline specific understandings.*

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 at least 75 hours of in-classroom observations. 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 evaluates the theoretical, legal, ethical, and practical applications of teaching students with exceptional learning needs.*
- *The graduate develops a classroom management plan that integrates best practices for engagement and motivation.*
- *The graduate evaluates the theoretical and practical applications of various assessment practices as they relate to student learning and instructional design.*
- *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 various applications of technological integration in support of learning for all students.*
- *The graduate evaluates the theoretical and practical implications of various instructional strategies, models, and trends for science in the context of classrooms and schools.*
- *The graduate evaluates the theoretical and practical implications of various general instructional strategies, models, and trends in the context of classrooms and schools.*
- *The graduate evaluates educational observations and experiences connected to professional practices to support the development of appropriate teaching dispositions and a personal teaching philosophy.*

Demonstration Teaching

Supervised Demonstration Teaching in Science, Observations 1 and 2

Supervised Demonstration Teaching in Science involves a series of classroom performance observations by the host teacher and clinical supervisor that develop comprehensive performance data about the teacher candidate's skills.

Supervised Demonstration Teaching in Science, Observation 3 and Midterm

Supervised Demonstration Teaching in Science involves a series of classroom performance observations by the host teacher and clinical supervisor that develop comprehensive performance data about the teacher candidate's skills.

Supervised Demonstration Teaching in Science, Observations 4 and 5

Supervised Demonstration Teaching in Science involves a series of classroom performance observations by the host teacher and clinical supervisor that develop comprehensive performance data about the teacher candidate's skills.

Supervised Demonstration Teaching in Science, Observation 6 and Final

Supervised Demonstration Teaching in Science involves a series of classroom performance observations by the host teacher and clinical supervisor that develop comprehensive performance data about the teacher candidate's skills.

Teacher Performance Assessment in Science

The Teacher Performance Assessment is a culmination of the wide variety of skills learned during your time in the Teachers College at WGU. In order to be a competent and independent classroom teacher, you will showcase a collection of your content, planning, instructional, and reflective skills in this professional assessment.

This course covers the following competencies:

- *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 the teaching context to accommodate student differences to plan for instruction and assessment.*
- *The graduate plans comprehensive learning segments of instruction and assessment that align with standards and the needs of students.*
- *The graduate evaluates teaching experiences including the planning and implementing of curriculum and instruction through ongoing reflection.*
- *The graduate plans learning environments that support individual learning, collaboration, and positive social interaction.*
- *The graduate applies instructional strategies that promote learning, engage students, and provide differentiated instruction.*

Professional Portfolio

You will create an online teaching portfolio that includes professional artifacts (e.g. resume and Philosophy of Teaching Statement) that demonstrate the skills you have acquired throughout your Demonstration Teaching experience.

This course covers the following competencies:

- *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 recommends various strategies to differentiate instruction to meet the diverse needs of individual students.*
- *The graduate recommends improvements for instruction and professional practice through personal reflection.*
- *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 considering leadership and supervisory skills.

This course covers the following competencies:

- *The graduate recommends effective strategies to maintain high levels of student engagement.*
- *The graduate demonstrates the ability to positively impact student learning through work samples, student artifacts, assessment results, and reflection.*
- *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 recommends various strategies to differentiate instruction to meet the diverse needs of individual students.*
- *The graduate selects community resources that support students' non-instructional needs in and out of the classroom.*
- *The graduate recommends improvements for instruction and professional practice through personal reflection.*
- *The graduate recommends best practices for classroom management, effective transitions, and pacing to maximize*

instructional time.

- *The graduate recommends strategies for effectively collaborating with colleagues, parents, and community professionals to support student development, learning, and well being.*
- *The graduate develops appropriate plans for professional growth in subject matter knowledge and pedagogical skills, including habits and skills of continual inquiry and learning.*

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 administrative or accessibility issues. The Student Services team members help you resolve issues, listen to student issues and concerns, and make recommendations for improving policy and practice based on student feedback. The Student Services team provides a formal means by which you can express your views, which in turn will inform the decisions we make.

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

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 closed in observance of university holidays.

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