WESTERN GOVERNORS UNIVERSITY
ONLINE. ACCELERATED. AFFORDABLE. ACCREDITED.

Program Guidebook

Bachelor of Science, AI Engineering

Program Code: **BSAIE** Catalog Version: **202607** Published Date: **4/13/2026**

The Bachelor of Science in AI Engineering (BSAIE) prepares students to become AI engineers, professionals who can design, build, deploy, and scale AI-powered systems responsibly in real production environments. Unlike traditional AI, data science, or computer science programs that emphasize theory or isolated experimentation, the BSAIE treats AI as a true engineering discipline, grounded in software engineering, systems thinking, and operational rigor. Graduates of the BSAIE are trained to bridge the gap between AI research and applied engineering. They learn how to integrate machine learning models into real applications, automate AI workflows, manage AI infrastructure, and apply ethical and governance principles throughout the engineering lifecycle. The result is a workforce-ready graduate who can contribute to AI initiatives from day one.The BSAIE is designed for learners who want to stay relevant, adaptable, and employable as AI reshapes the software profession, by teaching them how to engineer the systems behind it.

Understanding the Competency-Based Approach

How do competency-based programs like those offered at Western Governors University (WGU) work? Unlike traditional universities, WGU does not award degrees based on completing a certain number of credit hours or a specific set of required courses. Instead, you will earn your degree by demonstrating your skills, knowledge, and understanding of essential concepts.

Progress through a degree program is measured not by the amount of time you spend in class but by your ability to demonstrate competency as you complete required courses along a Standard Path. To help you acquire the knowledge and skills you need to demonstrate competency and 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 your program's requirements and help you create a plan for completing your courses. You will also work closely with course instructors as you engage in each course. As subject matter experts, course instructors will guide you through the content you must learn to demonstrate competency through the course assessments.

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 you possess and can demonstrate—not the number of hours spent in a classroom.

Accreditation

Western Governors University is the only university in the history of American higher education to have earned initial accreditation from multiple regional accrediting commissions at once—earning simultaneous accreditation from ACCJC, HLC, NWCCU, and WASC. The university’s accreditation from the Northwest Commission on Colleges and Universities (NWCCU) was reaffirmed in March of 2024. In addition to institution-level accreditation, each school has at least one program that is accredited by a programmatic accreditation. All programmatic accreditations are managed by the Academic Engagement department. Contact compliance@wgu.edu for additional information.

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. Your program mentor and course instructors will help you assess your strengths and development needs to establish a study plan.

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, pre-assessments are there to help your program mentor form a profile of your prior knowledge and create a personalized Degree Plan.

How You Will Interact with Faculty

At WGU, faculty serve in specialized roles, and they will work with you individually to provide the guidance, instruction, and support you will need to succeed and graduate. As a student, it is important for you to take advantage of this support. It is key to your progress and ultimate success.

Upon your enrollment, you will be assigned a program mentor—an expert in your field of study who will provide you with regular program-level guidance and support from the day you start until the day you graduate. Your program mentor will set up regular telephone appointments (weekly at first) with you, which you will be expected to keep. The mentor will review program competencies with you and work with you to develop a plan and schedule for your coursework. Your program mentor will serve as your main point of contact throughout your program—helping you set weekly study goals, recommending specific learning materials, telling you what to expect in courses, and keeping you motivated. In addition to regular calls, your program mentor is available to help you resolve questions and concerns as they arise.

For many of the courses at WGU, you will be required to complete performance assessments. These include reports, papers, presentations, and projects that let you demonstrate your mastery of the required competencies. A separate group of faculty members, called evaluators, will review your work to determine whether it meets requirements. Evaluators are also subject matter experts in their field of evaluation. If your assessment needs further work before it “passes,” these evaluators, who review your work anonymously, will provide you with instructional feedback to help you meet evaluation standards and allow you to advance.

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 interact with faculty and other students.

The learning resources in each course are specifically designed to support you as you develop competencies in preparation for your assessments. These learning resources may include reading materials, videos, tutorials, cohort opportunities, community discussions, and live discussions that are guided by course instructors who are experts in their field. 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 program mentor solve any special problems that may arise.

Orientation

The WGU Orientation course will introduce you to the fundamentals of WGU’s competency-based education (CBE) and the expectations, policies, and protocols for students enrolled in a WGU degree program. Orientation will introduce you to WGU’s wide range of support resources and success centers. It also will provide you with study strategies recommended by current students and faculty that will help you succeed as a WGU student. Orientation ends with your first assessment at WGU, providing an opportunity to experience WGU’s performance assessment process before you begin your degree-focused coursework. 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. WGU undergraduate programs may accept transfer credits or apply a 'Requirement Satisfied' (RS) in some cases. Refer to your specific program transfer guidelines to determine what can be satisfied by previously earned college credits. 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 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 program 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 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 onthe 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 must demonstrate your skills and knowledge by completing each course's assessment(s). You may be asked to demonstrate competency in a course in several different ways, including proctored exams, projects, essays, research papers, and simulations, among others. Certifications verified through third parties may also be included in your program as a way to demonstrate competency. More detailed information about each assessment is provided in the course of study.

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 are 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 Resource Fee. They can be accessed or enrolled for through your courses. Some degree-specific resources may not be 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 Student Handbook article provides additional details about the current state of mobile compatibility for learning resources at WGU.

Mobile Access 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 Science, AI Engineering

Course Title	CUs	Term
Introduction to AI Engineering	3	1
Object Oriented Programming in Python	3	1
Calculus I	4	1
Health, Fitness, and Wellness	4	1
Web Development Foundations	3	2
Applied Probability and Statistics	3	2
Calculus II for Engineers	3	2
Data Management - Foundations	3	2
Network and Security - Foundations	3	2
Version Control	1	3
Calculus III for Engineers	3	3
AI Engineering with C#	3	3
Composition: Successful Self-Expression	3	3
Applied Discrete Mathematics	3	3
Azure AI Fundamentals	3	4
Linear Algebra for Engineers	3	4
Data Structures and Algorithms I	4	4
Discrete Mathematics II	4	4

Data Structures and Algorithms II	4	5
Big Data Foundations	4	5
Introduction to Systems Thinking and Applications	3	5
Mathematics of AI	3	5
Advanced C#	3	6
Introduction to Communication: Connecting with Others	3	6
Ethical Engineering	3	6
Computer Architecture	3	6
Fundamentals of Information Security	3	6
C# .NET Back End Development	3	7
Machine Learning	3	7
Computer Systems for AI	3	7
Deep Learning for AI Engineers	3	7
Data and Information Governance	2	7
American Politics and the US Constitution	3	8
ML DevOps	2	8
Natural Language Processing for AI Engineers	3	8
General Chemistry I	3	8

General Chemistry I Lab	1	8
Software Engineering	4	9
Computer Vision for AI Engineers	3	9
Applied AI Engineering	3	9
Total CUs	121	

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

Areas of Study for Bachelor of Science, AI Engineering

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.

Artificial Intelligence

Introduction to AI Engineering

This course provides a foundational orientation to the field of AI engineering, focusing on the essential interplay between programming, mathematics, and real-world applications. Learners apply core programming principles and foundational mathematical ideas that support algorithmic thinking and analyze how these foundations enable the design and development of AI systems. Students also describe how AI engineering differs from related domains, such as data science and academic research, with an emphasis on applied engineering practice. Through conceptual frameworks, applied examples, and introductory analysis, students begin to understand the skills, mindset, and responsibilities of AI engineers, including considerations related to scalability, reliability, and responsible use of AI technologies. The course establishes a strong foundation for success in the AI Engineering program by clarifying expectations for rigor and by highlighting the relevance of foundational competencies for building trustworthy, impactful, and real-world AI solutions.

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 applies core programming principles, including variables, functions, and basic data structures.*
- *The learner describes AI engineering and its application to real-world problems.*
- *The learner explains how foundational mathematical concepts support algorithmic thinking in AI engineering.*

Azure AI Fundamentals

This course provides learners with a foundational understanding of artificial intelligence concepts and how they are applied through Microsoft Azure services. The course emphasizes AI workloads and responsible AI, machine learning, computer vision, natural language processing, and generative AI, providing a very fundamental introduction to the foundations of each and how to implement them through Azure services. This course is designed to prepare learners for Exam AI900 Azure AI Fundamentals Microsoft Certification.

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 common AI workloads and considerations for their responsible use.*
- *The learner explains fundamental machine learning principles and how they operate using Azure.*
- *The learner identifies Azure AI features and services for computer vision, natural language processing, and generative AI.*

Computer Systems for AI

This course examines computer systems and architectures through the lens of AI engineering, emphasizing how hardware and software work together to support modern AI workloads. Learners analyze the roles of CPUs, GPUs, TPUs, and distributed systems in enabling efficient AI model training, inference, and deployment. The course explores architectural tradeoffs, performance optimization techniques, and resource management strategies that influence system behavior under AI-specific workloads. Through applied analysis and system design activities, learners evaluate resource requirements and system constraints that impact scalability, reliability, and organizational objectives. Case studies and examples span cloud platforms, embedded systems, and edge AI environments, highlighting how architectural decisions vary across deployment contexts. By the end of the course, learners are prepared to design and assess computing systems that effectively support AI applications in real-world engineering environments.

This course covers the following competencies:

- *Begin your course by discussing your course planning tool report with your instructor and creating your personalized course*

plan together.

- *The learner analyzes how modern computer architectures and their evolutions support AI workloads.*
- *The learner designs systems for AI applications.*
- *The learner evaluates resource requirements for AI models to meet organizational requirements.*

Deep Learning for AI Engineers

This course develops students' ability to design, optimize, and evaluate deep learning solutions for engineering applications. Learners apply deep neural network architectures to domains such as computer vision and natural language processing, using optimization and fine-tuning techniques to improve model performance. The course emphasizes evaluating computational, architectural, and deployment tradeoffs, including hardware constraints and scalability considerations, to support effective and responsible model deployment. Through applied activities, learners demonstrate engineering judgment in selecting models, frameworks, and optimization strategies that meet specified technical and operational requirements.

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 applies deep neural networks to solve engineering problems.*
- *The learner applies optimization and fine-tuning techniques to improve model performance.*
- *The learner illustrates deployment tradeoffs for deep learning models, recommending architectures and frameworks based on hardware, scalability, and application constraints.*
- *The learner interprets ethical issues including environmental impact, bias, fairness, and interpretability concerns in deep learning model design and deployment.*

Natural Language Processing for AI Engineers

This course develops students' ability to apply natural language processing (NLP) techniques to solve engineering problems involving human language data. Learners implement reproducible text preprocessing and tokenization pipelines, apply word embeddings, and use sequence-based and transformer-based models to complete tasks such as classification, sentiment analysis, and question answering. The course emphasizes rigorous evaluation beyond accuracy, using task-appropriate metrics, structured error analysis, and stress testing under realistic input variation, to identify failure modes and reliability risks. Learners also assess bias, safety, and responsible-use concerns (including generative AI risks when applicable) and produce governance artifacts that document intended use, limitations, evaluation results, and monitoring expectations. Through applied engineering work, learners demonstrate judgment in selecting methods and designing solutions that meet technical, ethical, and operational constraints.

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 applies sequence and transformer-based models to solve NLP tasks.*
- *The learner evaluates NLP models for accuracy, bias, and reliability, recommending improvements for responsible deployment.*
- *The learner implements NLP preprocessing techniques and word embeddings to prepare text data for model training.*

Computer Vision for AI Engineers

This course prepares learners to design, implement, and deploy computer vision solutions in engineering contexts. Learners identify techniques for data selection, processing, structure, and generation for training computer vision models; apply CNN-based models for detection, classification, and segmentation; and recommend appropriate tools and deployment strategies for vision models given a business problem. The course builds on machine learning and deep learning foundations, narrowing the focus to vision-specific tasks with hands-on model development, optimization, and deployment.

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 applies CNN-based models for detection, classification, and segmentation.*
- *The learner identifies techniques for data selection, processing, structure, and generation for training computer vision*

models.

- *The learner recommends appropriate tools and deployment strategies for vision models given a business problem.*

Applied AI Engineering

This capstone course requires students to integrate and apply engineering knowledge from mathematics, programming, data engineering, machine learning, deep learning, and software engineering to design, validate, and deploy an AI-enabled system that addresses a real-world problem. Learners work through the full AI system lifecycle, including problem formulation, model development, testing, deployment, and monitoring. The course emphasizes ethical and responsible AI practices, systematic evaluation using appropriate metrics, and production deployment using industry-standard MLOps tools such as cloud infrastructure, containerization, CI/CD pipelines, and monitoring frameworks. Through this culminating experience, learners demonstrate the ability to design and deploy AI solutions that meet technical, ethical, and operational constraints expected of entry-level AI engineers.

This course covers the following competencies:

- *The learner deploys AI systems to production environments using cloud, containerization, and CI/CD pipelines with monitoring and optimization.*
- *The learner develops an ethical AI-enabled solution by integrating data engineering, machine learning models, and software engineering practices.*
- *The learner refines AI applications by applying systematic testing and evaluation metrics.*

Programming

Object Oriented Programming in Python

This course bridges foundational programming skills to advanced object-oriented concepts, empowering learners to design and implement robust, scalable applications. It emphasizes the core pillars of object-oriented programming such as inheritance, composition, encapsulation, abstraction, and polymorphism while introducing data structure fundamentals. Learners will define and extend class hierarchies, apply method overriding, work with polymorphic collections, and traverse data structures using iterative and recursive techniques. Through practical problem-solving, the course reinforces code reusability and equips learners to apply object-oriented principles for efficient, maintainable solutions.

This course covers the following competencies:

- *The learner applies inheritance, encapsulation, and abstraction to programming problems with object-oriented code.*
- *The learner applies polymorphism and recursion to programming problems with object-oriented code.*
- *The learner develops code using inheritance in object-oriented programming.*

Mathematics Content

Calculus I

Calculus I introduces the fundamental ideas of limits, derivatives, anti-derivatives, and basic differential equations as tools for modeling and solving real-world problems. Students explore how functions behave, how rates of change are measured and optimized, and how derivatives lead to applications in linear approximations and optimization. The basics of how accumulated quantities (antiderivatives) are computed using the Fundamental Theorem of Calculus are also introduced...

from science, engineering, economics, and technology. Students will focus on conceptual understanding, graphical interpretation, and applied problem-solving rather than formal proofs. By the end of the course, students will be able to analyze change, model systems, and apply calculus techniques to practical scenarios.

This course covers the following competencies:

- *Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*
- *The learner analyzes limits and continuity of functions to solve problems.*
- *The learner applies rules of differentiation to solve problems involving rates of change, linear approximation, and optimization.*
- *The learner evaluates definite and indefinite integrals using geometry and the Fundamental Theorem of Calculus.*
- *The learner solves separable differential equations and initial value problems.*

Applied Discrete Mathematics

Applied Discrete Mathematics introduces the foundational mathematical structures that underpin modern technology. Topics include logic, Boolean algebra, sets, functions, relations, graphs, combinatorics, and modular arithmetic, with emphasis on their applications to technology concepts such as Boolean algebra and structures, password complexity, access control models, network topologies, and cryptography. Students will not focus on abstract proofs but will instead learn how discrete mathematics informs real-world technology structures and practices. By the end of the course, students will be able to apply mathematical reasoning to technology scenarios, analyze system vulnerabilities through discrete models, and explain the mathematical principles behind technologic architectures and protocols.

This course covers the following competencies:

- *Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*
- *The learner analyzes real-world systems, including representations or models of mathematical structures.*
- *The learner applies logic and Boolean algebra principles to interpret and analyze real-world systems.*
- *The learner applies modular arithmetic and number theory concepts to describe aspects of real-world technological systems.*
- *The learner creates problem-solving models of real-world problems using combinatorics, probability, and graph theory.*

General Education

Health, Fitness, and Wellness

Health, Fitness, and Wellness focuses on the importance and foundations of good health and physical fitness—particularly for children and adolescents—addressing health, nutrition, fitness, and substance use and abuse.

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 identifies factors that influence mental, emotional, and social wellness.*
- *The graduate identifies the application of the core competencies of social and emotional learning.*
- *The graduate identifies the influence of disease, fitness, and lifestyle on the body.*
- *The graduate identifies the principles of nutrition and the components of a healthy diet.*

Applied Probability and Statistics

Applied Probability and Statistics is designed to help students develop competence in the fundamental concepts of basic statistics including: introductory algebra and graphing; descriptive statistics; regression and correlation; and probability. Statistical data and probability are often used in everyday life, science, business, information technology, and educational settings to make informed decisions about the validity of studies and the effect of data on decisions. This course discusses what constitutes sound research design and how to appropriately model phenomena using statistical data. Additionally, the content covers simple probability calculations, based on events that occur in the business and IT industries. No prerequisites are required 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 and methods of probability-based mathematics to explain and solve problems.*
- *The graduate applies the operations, processes, and procedures of basic algebra to evaluate quantitative expressions, and to solve equations and inequalities.*
- *The graduate applies the operations, processes, and procedures of fractions, decimals, and percentages to evaluate quantitative expressions.*
- *The graduate evaluates categorical and quantitative data pertaining to a single variable using appropriate graphical displays and numerical measures.*
- *The graduate evaluates the relationship between two quantitative variables through correlation and regression.*
- *The graduate evaluates the relationship between two variables through interpretation of visual displays and numerical measures.*

Composition: Successful Self-Expression

Welcome to Composition: Successful Self-Expression! In this course, you will focus on four main topics: professional writing

for a cross-cultural audience, narrowing research topics and questions, researching for content to support a topic, and referencing research sources. 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. You will demonstrate competency through a performance assessment. There is no prerequisite for this course and there is no specific technical knowledge needed.

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 composes a written message with language appropriate for cross-cultural communication.*
- *The learner incorporates research to support a position or idea.*
- *The learner incorporates self-expression in written communication.*
- *The learner researches valid and reliable sources.*
- *The learner writes a message using an effective communication approach for a given situation.*
- *The learner writes a reference list.*
- *The learner writes in a professional manner for a given scenario.*

Discrete Mathematics II

Discrete Mathematics II addresses abstract, discrete, computational methods used in computer science. In particular, this class introduces searching and sorting algorithms; big-O estimates; number theory and cryptography; recursion and induction; counting and advanced counting techniques; discrete probability; and modeling computation. This course emphasizes applications in computer science. Discrete Mathematics I 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 analyzes linear algorithms and associated big-O estimates.*
- *The graduate analyzes mathematical problems using discrete probability or Bayesian methods.*
- *The graduate analyzes recursive elements of algorithms, using applicable induction principles.*
- *The graduate analyzes the use of number theory in cryptography.*
- *The graduate determines computational models using deterministic and nondeterministic finite-state machines.*
- *The graduate solves problems using counting principles.*

Introduction to Systems Thinking and Applications

Introduction to Systems Thinking and Applications provides learners with the skills required to engage in a holistic systems-based approach to analyzing complex problems and solutions. This course introduces the foundational concepts and principles of systems thinking and provides opportunities to use a systems thinking approach to analyze and evaluate real-world case studies. The course will culminate with using systems thinking to develop a solution to an authentic complex problem. This course has no prerequisites, but general education math (C955 or C957) is preferred. Because the course is self-paced, learners may move through the material as quickly or as slowly as needed, with the goal of demonstrating proficiency in the five competencies covered in the final assessment. If learners have no prior knowledge of this material, they can expect to spend 30 to 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 learner analyzes complex problems and solutions using a systems thinking methodology.*
- *The learner applies the basic principles and foundational theory of systems thinking to a scenario.*
- *The learner designs a solution to a complex problem using systems thinking.*

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.*

Ethical Engineering

Ethical Engineering introduces learners to the ethical, professional, and societal responsibilities inherent in engineering practice. Learners examine the societal, economic, environmental, and global impacts of engineering decisions; interpret professional engineering codes of ethics; and apply ethical decision-making frameworks to real-world and historical engineering cases. Through case analysis and performance-based assessment, learners develop the judgment required to navigate ethical dilemmas in traditional and emerging engineering fields responsibly.

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 applies ethical decision-making frameworks to analyze and resolve ethical dilemmas in engineering contexts.*
- *The learner applies professional engineering codes of ethics to professional responsibilities in real-world and historical engineering cases.*
- *The learner evaluates the societal, economic, environmental, and global impacts of engineering decisions and technologies.*

American Politics and the US Constitution

American Politics and the U.S. Constitution examines the evolution of representative government in the United States and the changing interpretations of the civil rights and civil liberties protected by the Constitution. This course will give candidates an understanding of the powers of the branches of the federal government, the continual tensions inherent in a federal system, the shifting relationship between state and federal governments, and the interactions between elected officials and the ever-changing electorate. This course will focus on such topics as the role of a free press in a democracy, the impact of changing demographics on American politics, and the debates over and expansion of civil rights. Upon completion of the course, candidates should be able to explain the basic functions of the federal government, describe the forces that shape American policy and politics, and be better prepared to participate in America's civic institutions. This course has no prerequisite.

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 the influence of competing political ideologies on the development of the United States government.*
- *The graduate examines the influence of political parties, citizens, and non-governmental organizations on elections and other political processes inside a participatory democracy.*
- *The graduate examines the influence of the media, public opinion, and political discourse on American democracy.*
- *The graduate examines the struggle to balance individual liberty, public order, and state's rights.*
- *The graduate explains how the structure and powers of the United States government interact to form public policy.*

Web Development

Web Development Foundations

Welcome to Web Development Foundations! In this course you will learn about web design and development using HTML and CSS. This course employs the zyBooks learning platform which contains all the necessary reading materials, knowledge checks, and hands-on activities to prepare you for the course assessment. For the best understanding of the course content, complete each chapter. There are no prerequisites. Competency will be demonstrated with a performance assessment.

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 creates the structure of basic web documents using HTML.*
- *The learner implements web page formatting and interface aesthetics using CSS.*
- *The learner resolves software problems in web development environments with debugging tools.*

Mathematics

Calculus II for Engineers

This course advances learners' understanding of calculus with a focus on integration techniques, sequences and series, differential equations, and alternative coordinate systems. Learners apply advanced integration and numerical approximation methods to model and solve engineering and computational problems, analyze infinite processes using sequences, series, and convergence tests, and represent dynamic systems through separable differential equations, parametric equations, and polar coordinates. Emphasizing real-world applications, the course highlights the role of calculus in optimization, numerical methods, and systematic problem-solving across engineering disciplines.

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 applies sequences, series, and convergence tests in engineering problem-solving.*
- *The learner applies techniques of integration and numerical approximation to model and solve engineering problems.*
- *The learner applies techniques of separable differential equations, parametric equations, and polar coordinates to represent and solve engineering problems.*

Linear Algebra for Engineers

This course is the third in a three-course C# sequence in the BSAIE program (AI Engineering with C#, Advanced C#, and C# .NET Backend Development) and focuses on the development of enterprise-ready backend services using ASP.NET Core. Learners extend their C# proficiency into professional software engineering by designing and implementing RESTful APIs with clear input/output contracts that meet both functional and non-functional requirements, including scalability, security, reliability, and maintainability. The course emphasizes validation of service behavior through a layered testing approach (unit and integration coverage) across typical usage scenarios, edge cases, and failure conditions. Learners configure services for deployment, implement observability (structured logging, metrics, and basic tracing patterns), and define operational expectations (SLIs/SLO targets, alerts, and response actions) to support ongoing reliability. Learners also apply lightweight CI practices (automated build/test checks and quality gates) and produce production-style delivery artifacts (deployment notes and a runbook) that prepare them to integrate and serve AI-enabled features under real-world constraints such as latency, throughput, and cost.

This course covers the following competencies:

- *Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*
- *The learner analyzes vector spaces, bases, and linear transformations to represent and manipulate multidimensional data.*
- *The learner applies matrix methods to model and solve systems of equations arising in engineering and computing.*
- *The learner determines eigenvalues, eigenvectors, and matrix factorizations to evaluate stability, optimize systems, and extract features.*

Mathematics of AI

This course enables learners to apply advanced mathematics, including calculus, linear algebra, probability, statistics, and optimization, to analyze and solve problems in artificial intelligence engineering. Learners use mathematical reasoning to model, analyze, and evaluate machine learning and deep learning systems, with emphasis on model training dynamics,

generalization, stability, and performance. The course develops learners' ability to analyze complex AI engineering problems by applying linear algebra techniques such as vector spaces and matrix factorizations, evaluate gradients, loss surfaces, and convergence behavior using multivariable calculus and optimization, and assess uncertainty and performance through probability, statistics, and information theory. Learners conduct computational experiments and data-driven analysis using Python, NumPy, and appropriate machine learning libraries to validate mathematical models and support engineering decisions. Throughout the course, learners demonstrate the ability to interpret results, draw justified conclusions, and communicate mathematical reasoning in the context of AI system design and evaluation.

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 applies concepts from linear algebra, including matrix factorization and vector spaces, to analyze and implement machine learning algorithms.*
- *The learner applies concepts from multivariable calculus and optimization to analyze gradients, loss surfaces, and convergence in machine learning models.*
- *The learner applies probability, statistics, and information theory to evaluate model generalization, uncertainty, and performance in AI systems.*

Data Management

Data Management - Foundations

Data Management Foundations offers an introduction in creating conceptual, logical and physical data models. Students gain skills in creating databases and tables in SQL-enabled database management systems, as well as skills in normalizing databases. No prerequisites are required 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 learner defines primary and foreign keys in data normalization.*
- *The learner determines how to run queries for creation and manipulation of data in relational databases.*
- *The learner explains attributes of databases, database tables, and structured and associated query language (SQL) commands.*

Network and Security

Network and Security - Foundations

Network and Security - Foundations introduces learners to the basic network systems and concepts related to networking technologies. Learners will gain skills in applying network security concepts for business continuity, data access, and confidentiality, and in identifying solutions for compliance with security guidance.

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 applies network security concepts for business continuity, data access, and confidentiality.*
- *The learner identifies basic network systems and concepts related to networking technologies.*
- *The learner identifies solutions for compliance with security guidance.*

Full Stack Engineering

Version Control

Version control is critical to maintaining software and enabling scalability solutions. A best practice for any programming project that requires multiple files uses version control. Version control enables teams to have collaborative workflows and enhances the software development lifecycle. This course introduces students to the basics of publishing, retrieving, branching, and cloning. 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 learner implements version control processes and solutions that maintains source code.*

Mathematics Education

Calculus III for Engineers

This course extends calculus into multiple dimensions and vector analysis, emphasizing mathematical tools essential for engineering applications. Learners apply vector operations in two and three dimensions and use multivariable differentiation techniques to model and solve optimization and engineering problems. The course also focuses on analyzing vector fields through line, surface, and volume integrals to model physical and computational systems. Applications include engineering systems, physics-based modeling, and optimization problems relevant to artificial intelligence and related engineering fields.

This course covers the following competencies:

- *Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*
- *The learner analyzes vector fields by evaluating line, surface, and volume integrals to model engineering systems.*
- *The learner applies differentiation techniques to functions of multiple variables to solve optimization and modeling problems.*
- *The learner applies vector operations in two and three dimensions to model and solve engineering problems.*

Software Development

AI Engineering with C#

This course is the first in a three-course C# sequence within the BSAIE program (AI Engineering with C#, Advanced C#, and C# .NET Backend Development). Building on students' prior experience with Python and object-oriented programming, the course transitions learners to C# as a second programming language. Students design and develop functional C# applications that apply programming logic, incorporate user interface elements, manage basic data input and output, and integrate external libraries and services, including AI-enabled components. The course emphasizes applied software engineering practices, including code modularity, control flow, and the translation of object-oriented concepts from Python to C#. AI integration is introduced at a foundational, application level, focusing on incorporating existing AI services or libraries rather than developing or training AI models. This course is not beginner-focused and assumes prior coding experience. It prepares students for continued work in backend engineering with C# while also establishing foundational AI integration skills relevant to both the BSAIE and BSSWE programs.

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 applies Programming Logic and UI Elements to C#. The learner applies programming logic and user interface elements to applications in C#.*
- *The learner implements basic input, event handling, and output in C# applications.*
- *The learner integrates external AI libraries or services into C# applications to extend their functionality.*

Advanced C#

This course is the second in a series of three C# courses in BSAIE (AI Engineering with C#, Advanced C#, and C# .NET Backend Development). This course builds on prior exposure to programming logic and introductory C# applications. Learners gain mastery of the C# language and its advanced features, developing skills required to build reliable, scalable, and maintainable applications. Learners should apply modern C# constructs and leverage advanced libraries and asynchronous programming. Learners should also apply professional software engineering practices such as automated testing and code quality assurance.

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 applies advanced C# constructs to develop applications.*
- *The learner applies core .NET libraries to build robust applications.*
- *The learner writes automated unit tests to improve reliability and performance.*

C# .NET Back End Development

This course is the third in a three-course C# sequence in the BSAIE program (AI Engineering with C#, Advanced C#, and C# .NET Backend Development) and focuses on the development of enterprise-ready backend services using ASP.NET. Learners extend their

C# proficiency into professional software engineering by designing and implementing RESTful APIs that meet both functional and non-functional requirements, including scalability, security, and maintainability. The course emphasizes validation of service behavior through comprehensive automated unit testing that addresses typical usage scenarios and edge cases. Learners also configure .NET applications for deployment, incorporating logging, monitoring, and metrics to support operational observability and ongoing service reliability. Through applied backend engineering practices, learners build the skills necessary to deploy and operate production-grade services and prepare for integrating AI models into real-world systems that require scalable, secure, and observable backend infrastructure.

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 builds unit tests for backend to validate service behavior under typical and edge conditions.*
- *The learner configures .NET applications for deployment, logging, and metrics to support operations.*
- *The learner constructs RESTful services with ASP.NET to meet functional and non-functional requirements.*

Computer Science

Data Structures and Algorithms I

Data Structures and Algorithms I covers the fundamentals of dynamic data structures, such as bags, lists, stacks, queues, trees, and hash tables with their associated algorithms. This course discusses object-oriented design and abstract data types as design paradigms. The course emphasizes problem-solving and techniques for designing efficient, maintainable software applications. Students will implement simple applications using the techniques learned.

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 applies algorithms that address a desired outcome based on space and time complexity in big-O notation.*
- *The learner determines how data structure types impact operations within application, service, or data stores.*
- *The learner explains the use, logic, and structure of algorithms.*

Data Structures and Algorithms II

Data Structures and Algorithms II explores the analysis and implementation of high-performance data structures and supporting algorithms, including graphs, hashing, self-adjusting data structures, set representations, and dynamic programming. The course also introduces students to NP-complete problems. The course discusses how to use Python techniques to implement software solutions for problems of memory management and data compression. This course has two prerequisites: Data Structures and Algorithms I and Discrete Math II.

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 creates software applications that incorporate non-linear data structures for efficient and maintainable software.*
- *The graduate evaluates computational complexity theories in order to apply models to specific scenarios.*
- *The graduate evaluates the space and time complexity of self-adjusting data structures using big-O notation to improve the performance of applications.*
- *The graduate incorporates dictionaries and sets in order to organize data into key-value pairs.*
- *The graduate writes code using hashing techniques within an application to perform searching operations.*
- *The graduate writes code using self-adjusting heuristics to improve the performance of applications.*

Computer Architecture

Computer Architecture introduces students to concepts and characteristics of organization and architecture applied to modern computer systems, including performance, processor, memory, I/O, and multiprocessors to optimize system design, performance, and efficiency.

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 computer architecture choices affecting information system solutions in order to effectively communicate and apply design considerations within an organization.*
- *The graduate analyzes the purpose and function of the operating system and how it interacts with the computer architecture.*
- *The graduate assesses the impacts of hardware and software design choices (i.e., cost, performance, optimization techniques, power consumption, size, compatibility, etc.) to improve quality and capabilities.*
- *The graduate evaluates characteristics of computer architecture to meet business objectives.*
- *The graduate evaluates performance of hardware and software interaction to maximize system capabilities.*

Data Science

Big Data Foundations

Big Data Foundations provides an in-depth introduction to big data concepts, terminology, and applications. You will learn the risks and challenges of working with extremely large data sets. The course introduces tools and techniques for working with big data. The course covers selection criteria for relational and non-relational data architectures and cloud-native data storage concepts. It also provides a historical perspective on the evolution of big data storage approaches. Data warehousing, data lakes, and data lakehouses are introduced, and design principles for each are explained. Learners design aspects of big data architecture and big data processing to address given business requirements.

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 designs aspects of big data processing according to business requirements.*
- *The learner designs aspects of data architecture according to business requirements.*
- *The learner identifies an appropriate data architecture according to organizational needs.*

Machine Learning

Machine Learning presents the end-to-end process of investigating data through a machine learning lens. Topics covered include: supervised and unsupervised learning algorithms, features that best represent data, commonly-used machine learning algorithms, and methods for evaluating the performance of machine learning algorithms.

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 supervised and unsupervised learning algorithms.*
- *The learner determines appropriate classification algorithms to apply to data sets.*
- *The learner determines appropriate clustering algorithms to apply to data sets.*
- *The learner determines appropriate regression algorithms to apply to data sets.*
- *The learner evaluates algorithm performance.*
- *The learner evaluates different data preprocessing strategies for feature selection.*

Machine Learning DevOps

Machine Learning DevOps focuses on the software engineering fundamentals needed to successfully streamline the deployment of data and machine learning models in a production-level environment. Students will build the DevOps skills required to automate the various aspects and stages of machine learning model building and monitoring over time.

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 a Machine Learning automation solution model with continuous integration and deployment framework to address organizational needs.*
- *The learner implements an end-to-end Machine Learning pipeline to address organizational needs.*

Secure Systems Analysis & Design

Fundamentals of Information Security

This course lays the foundation for understanding terminology, principles, processes, and best practices of information

security at local and global levels. It further provides an overview of basic security vulnerabilities and countermeasures for protecting information assets through planning and administrative controls within an organization. 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 learner identifies cybersecurity guidelines in privacy and compliance.*
- *The learner identifies security principles, policies, practices, and methods for asset protection and cyber defense.*
- *The learner identifies security requirements based on principles of confidentiality, integrity, and availability.*

Data Analytics

Data and Information Governance

Data and Information Governance provides learners with the knowledge that establishing rules of engagement, policies, procedures, and data stewardship is essential to exercising organizational control over—and extracting maximum value from—its data assets. Good data governance helps an organization lower costs, create efficiencies, and achieve its strategic goals and objectives. Data governance provides a framework for properly managing information across the entire data lifecycle and establishes strategies in support of disaster recovery and continuity of operations. This course will prepare IT professionals to assist their organization in the definition and implementation of best practices related to the planning and implementation of managed systems that meet business, technical, security, auditing, disaster recovery, and business continuity requirements.

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 evaluates data governance components to identify deficiencies in the organization's data quality, completeness, and management strategy.*
- *The learner recommends data and information governance policies, standards, procedures, and best practices.*

General Science Content

General Chemistry I

General Chemistry I introduces foundational principles of chemistry, starting at the atomic level and expanding to the behavior of elements within the periodic table. This course explores how atoms bond to form molecules and proceeds into chemical reactions, acids and bases, solutions, and nuclear reactions. Students will gain a comprehensive understanding of stability and change in chemical processes. This course highlights the practical aspects of chemistry, providing insights into how chemical principles underpin everyday phenomena and contribute to our understanding of environmental processes.

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 applies concepts of energy and entropy to describe systems.*
- *The learner describes processes and outputs of nuclear reactions.*
- *The learner recognizes patterns in the structure and properties of matter based on atomic structure.*

General Chemistry I Lab

General Chemistry I Lab focuses on developing foundational skills in scientific investigation in chemistry. It emphasizes the application of the scientific method to answer chemistry questions through hypothesis-driven experimentation. Students will learn to design, execute, and analyze chemistry experiments, ensuring adherence to rigorous scientific protocols and ethical standards. The course also covers essential aspects of scientific communication, including writing clear and structured scientific reports and effectively presenting experimental findings. Throughout the course, students will cultivate critical thinking skills necessary for interpreting data and drawing conclusions.

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 conducts scientific investigations to answer questions using experimentation in the field of chemistry.*

Information Technology Management

Software Engineering

Software Engineering introduces the concepts of software engineering to students who have completed the core courses in programming and project management. The principles build on previously acquired concepts, switching the emphasis from programming simple routines to engineering robust and scalable software solutions. This course does not cover programming, but it provides an overview of software engineering processes and their challenging nature, focusing on the need for a disciplined approach to software engineering. A generic process framework provides the groundwork for formal process models. Prescriptive process models such as the Waterfall Model and Agile Development are included. This course also introduces the elements and phases of software engineering, including requirements engineering, design concepts, and software quality. 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 learner analyzes the objectives, scope, and organizational impact of software systems.*
- *The learner creates test cases for quality assurance as part of software development processes.*
- *The learner determines optimal software design for given requirements.*
- *The learner identifies the costs and impact of design changes to software systems.*

Accessibility and Accommodations

Western Governors University (WGU) is committed to providing equal access to its academic programs to all qualified students. WGU's Student Disability Services department supports this mission by providing support, resources, advocacy, collaboration, and academic accommodations in accordance with federal and state statutes and regulations to WGU students and prospective students. Potential and current students needing to request accommodation(s) are encouraged to contact Student Disability Services to initiate the request. To initiate the accommodation process, all potential and current WGU students must complete the secure online Accommodation Request Form located at' *https://www.wgu.edu/wgu/ada_form*. Potential and current students can reach the Student Disability Services team Monday through Friday 8:00 a.m. to 5:00 p.m. MT at 1-877- 435-7948 x5922 or at *sds@wgu.edu*. Additional information on accommodations can be found in the student handbook Accommodations for Students with Disabilities policy.

Need More Information? WGU Student Services

Student Support Services team members also assist with unresolved concerns to find equitable resolutions. To contact the Student Support 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., and Saturday and Sunday, 10:00 a.m. to 7:00 p.m, mountain standard time.