Program Guidebook

Bachelor of Science, Network Engineering and Security Cisco Track

In response to an increasing demand for Cisco network and security professionals, the Bachelor of Science, Network Engineering and Security - Cisco (BSNES-C) degree program prepares IT professionals to apply knowledge and experience in network design, network engineering, network troubleshooting, network automation, network security, and cloud security to manage network infrastructure and secure data through effective IT policies and procedures. Courses deliver proven methods for network administration and operations to ensure uptime, performance, resources, and security of networks to meet the needs of the organization. The program builds upon a core IT curriculum: systems and services, networking and security, scripting and programming, data management, business of IT, and web development. Students seeking the BS, Network Engineering and Security – Cisco degree demonstrate additional competencies in this area by taking and passing industry relevant certifications that include three Cisco Associates certification exams.

Understanding the Competency-Based Approach

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

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

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

Accreditation

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

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

The Degree Plan

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

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

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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

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You will also be assigned to a course instructor for each course. Course instructors are subject matter experts who will assist your learning in each individual course. When you begin a new course, your assigned course instructor will actively monitor your progress and will be in touch to offer one-on-one instruction and to provide you with information about webinars, cohort sessions, and other learning opportunities available to help you acquire the competencies you need to master the course. Your course instructor can discuss your learning for the course, help you find answers to content questions, and give you the tools to navigate the course successfully. In addition, you will communicate with course instructors by posting in the online learning community and participating in live discussion sessions such

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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."

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

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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

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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 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

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The following article provides additional details about the current state of mobile compatibility for learning resources at WGU.

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

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Standard Path *for* Bachelor of Science, Network Engineering and Security Cisco Track

Course Description	CUs	Term
Introduction to IT	4	1
IT Applications	4	1
IT Foundations	4	1
Ethics in Technology	3	2
Network and Security - Foundations	3	2
Linux Foundations	3	2
Applied Probability and Statistics	3	2
Introduction to Spreadsheets	1	2
Composition: Writing with a Strategy	3	3
Business of IT – Applications	4	3
Web Development Foundations	3	3
Introduction to Physical and Human Geography	3	3
Applied Algebra	3	4
Discrete Math: Logic	1	4
Implementing and Administering Networking Solutions	6	4
Critical Thinking: Reason and Evidence	3	4
Discrete Math: Functions and Relations	1	4
Network Analytics and Troubleshooting	3	5
Cyber Operations Fundamentals	6	5
Discrete Math: Algorithms and Cryptography	1	5
Introduction to Cryptography	4	5
Managing Cloud Security	4	6
Integrated Physical Sciences	3	6
Telecomm and Wireless Communications	3	6
Cloud Applications	3	6
Scripting and Programming - Foundations	3	7
Python for IT Automation	3	7
DevNet Fundamentals	6	7
Data Management - Foundations	3	8
Technical Communication	3	8
Introduction to Systems Thinking	3	8
IT Leadership Foundations	3	8
Business of IT - Project Management	4	9
BSNES Capstone Project	4	9

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

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Areas of Study for

system; a knowledge of computer data storage and retrieval; and skills in classifying, installing, configuring, optimizing, upgrading, and troubleshooting printers, laptops, portable devices, operating systems, networks, and system security. This course also gives learners the ability to recommend appropriate tools, diagnostic procedures, preventative maintenance, and troubleshooting techniques for personal computer components in a desktop system; strategies for identifying, preventing, and reporting safety hazards and environmental or human accidents in technological environments; and effective communication skills for interacting with colleagues and clients, including job-related professional behavior. The course prepares learners for the CompTIA A+ Core 1 certification exam.

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This course covers the following competencies:

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

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

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

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

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

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

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

Composition: Writing with a Strategy

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

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

This course covers the following competencies:

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

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

The learner incorporates writing strategies and techniques for written communication.

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

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

The learner composes constructive feedback of written texts.

Introduction to Physical and Human Geography

This is Introduction to Physical and Human Geography, a three-module course that addresses the question of what geography really is in today's complex world; how migration affects—and has been affected by—geography; and one of the biggest present problems related to geography: climate change. Because the course is self-paced, you may move through the material as quickly or as slowly as you need to, with the goal of demonstrating proficiency in the five competencies covered in the final assessment. If you have no prior knowledge of this material, you can expect to spend 30–40 hours on the course content.

This course covers the following competencies:

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

The learner analyzes the message of a data visualization for a specific purpose.

The learner interprets complex global systems through the lenses of physical and human geography.

The learner analyzes the various causes and effects of human migration.

The learner analyzes the connections among the various factors contributing to climate change.

The learner applies logical reasoning to the analysis of climate change.

Applied Algebra

Applied Algebra is designed to help you develop competence in working with functions, the algebra of functions, and using some applied properties of functions. You will start learning about how we can apply different kinds of functions to relevant, real-life examples. From there, the algebra of several families of functions will be explored, including linear, polynomial, exponential, and logistic functions. You will also learn about relevant, applicable mathematical properties of each family of functions, including rate of change, concavity, maximizing/minimizing, and asymptotes. These properties will be used to solve problems related to your major and make sense of everyday living problems. Students should complete Applied Probability and Statistics or its equivalent prior to engaging in Applied Algebra.

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 interprets the real-world meaning of various functions based on notation, graphical representations, and data representations.

The learner applies linear functions and their properties to real-world problems.

The learner applies polynomial functions and their properties to real-world problems.

The learner applies exponential functions and their properties to real-world problems.

The learner applies logistic functions and their properties to real-world problems.

The learner analyzes graphical depictions of real-world situations using functional properties.

The learner verifies the validity of a given model.

Discrete Math: Logic

Discrete Math-Logic is designed to help students develop competence in the use of logic and proofs and Boolean Algebra and Boolean functions. Applied Probability and Statistics and Applied Algebra are 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 evaluates the truth of statements using proofs and the principles of deductive logic.

The learner minimizes circuits using Boolean algebra and Boolean functions.

Critical Thinking: Reason and Evidence

In this course you will learn key critical thinking concepts and how to apply them in the analysis and evaluation of reasons and evidence. The course examines the basic components of an argument, the credibility of evidence sources, the impact of bias, and how to construct an argument that provides good support for a claim. The course consists of an introduction and four major sections. 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 four competencies that will be covered in the final assessment. If you have no prior knowledge or experience, you can expect to spend 30-40 hours on the course content.

This course covers the following competencies:

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

The learner evaluates the quality of an argument.

The learner evaluates evidence based on source credibility.

The learner evaluates bias and its impact.

The learner makes claims based on evidence.

Discrete Math: Functions and Relations

Discrete Math: Functions and Relations is designed to help students develop competence in the use of abstract discrete structures fundamental to systems networking. In particular, this course will introduce students to set theory, finite sequences, series, and relations. Discrete Math: Logic, Applied Probability and Statistics, and Applied Algebra are 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.*

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 applies the basic principles and foundational theory of systems thinking to a scenario.

The learner analyzes complex problems and solutions using a systems thinking methodology.

The learner designs a solution to a complex problem using systems thinking.

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 identifies basic network systems and concepts related to networking technologies.

The learner applies network security concepts for business continuity, data access, and confidentiality.

The learner identifies solutions for compliance with security guidance.

Cloud Applications

Cloud Applications prepares learners for the CompTIA Cloud+ certification exam. Learners will gain skills in designing cloud infrastructure and services and in recommending cloud security solutions, policies, and procedures. The course will also introduce skills in deploying cloud solutions for storage, networking, and security, and in managing cloud operations with processes, procedures, and improvements. Learners will also gain skills in troubleshooting cloud services issues in networking, security, and performance.

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 cloud infrastructure and services.

The learner recommends cloud security solutions, policies, and procedures.

The learner deploys cloud solutions for storage, networking, and security.

The learner manages cloud operations with processes, procedures, and improvements.

The learner troubleshoots cloud services issues in networking, security, and performance.

Operating Systems

Linux Foundations

Linux Foundations prepares learners for the LPI Linux Essentials certification, and is an introduction to Linux as an operating system as well as an introduction to open-source concepts and the basics of the Linux command line. Learners will gain skills in identifying the fundamentals of open-source software and to develop resources for data access and security.

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 the fundamentals of open-source software.

The learner develops resources for data access and security.

Business of IT

Business of IT – Applications

Business of IT - Applications examines Information Technology Infrastructure Library (ITIL®) terminology, structure, policies, and concepts. Focusing on the management of information technology (IT) infrastructure, development, and operations, learners will explore the core principles of ITIL practices for service management to prepare them for careers as IT professionals, business managers, and business process owners. 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 applies Information Technology Infrastructure Library (ITIL) concepts, core components, principles, and models of service management.

The learner applies the Information Technology Infrastructure Library (ITIL) six activities of the service value chain.

IT Leadership Foundations

IT Leadership Foundations is an introductory course that provides students with an overview of organizational structures, communication, and leadership styles specific to information technology in organizations. It also introduces students to some of the power skills that help make successful IT professionals, including time management, problem solving, and emotional intelligence. Students in this course explore their own strengths and passions in relation to the field. 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 selects appropriate influential leadership strategies for workplace situations.

The learner communicates ideas, opinions, and information suitable for various professional settings.

The learner reflects on the emotional reactions of self and others in a variety of professional situations.

The learner recommends strategies for decision-making in team environments.

Business of IT - Project Management

In this course, students will build on industry standard concepts, techniques, and processes to develop a comprehensive foundation for project management activities. During a project's life cycle, students will develop the critical skills necessary to initiate, plan, execute, monitor, control, and close a project. Students will apply best practices in areas such as scope management, resource allocation, project planning, project scheduling, quality control, risk management, performan

The learner creates the structure of basic web documents using HTML and XML.

The learner implements web page formatting and interface aesthetics using CSS

The learner resolves software problems in web development environments with debugging tools.

Networking

Implementing and Administering Networking Solutions

Implementing and Administering Networking Solutions expands on basic networking concepts and covers advanced network engineering skills including: Switch and router configuration, trouble shooting and maintenance on wired and wireless networks, Security, network automation and introduces Software Defined Networking. This course prepares students for the Cisco Certified Network Associate (CCNA) certification exam CCNA-200-301.

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 configures routers, switches, firewalls, and network security devices.

The learner implements network infrastructures.

The learner implements automated solutions for infrastructure configuration and management.

The learner configures network access and management for secure operations.

Network Analytics and Troubleshooting

Network Analytics and Troubleshooting teaches students to use network monitoring and analytics tools and practices that are common in the workplace in order to troubleshoot and fix complex computer networks. Students will follow a customer service model in identifying, classifying, investigating, and repairing network outages or problems. This course is designed as a hands-on experience where students will implement these techniques in a virtual space in order to produce a secure and functional deployed network.

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 network problems with telemetry, software, and equipment.

The learner performs network troubleshooting.

The learner provides customer support in resolution of network issues.

Cyber Operations Fundamentals

In Cyber Operations Fundamentals, students will learn security concepts, security monitoring, host-based analysis, network intrusion analysis, and security policies and procedures using Cisco practices and technologies. This course prepares ( ) 2 -2 1 .

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 develops firewall solutions for system and data security.

The learner implements prevention, intrusion detection systems, and remediation processes for hosts on the network.

The learner determines how to secure networks with firewalls, system monitoring, and vulnerability analysis.

The learner determines how to maintain network security throughout the security lifecycle.

Telecomm and Wireless Communications

Telecomm and Wireless Communications explores the science, technologies, and standards that enable wired and wireless data to be transmitted across different media. Topics include data encoding and decoding, and analog and digital transmissions via wired, fiber, wireless, cellular, and satellite technologies.

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 determines how to transmit data securely across multiple mediums.

The learner designs wired and wireless network infrastructures in alignment with telecommunication standards.

Python for IT Automation

Python for IT Automation covers the fundamentals of the Python language and its features to control program flow, inform decisions, and automate IT tasks and processes. The course emphasizes a systematic approach to solving problems and the application of programming logic to administer secure, scalable, and resilient IT networks and systems.

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 Python principles and syntax to manage variables, data structures, and operators and to perform IT tasks.

The learner creates Python scripts using control structures to automate systems tasks.

The learner integrates Python scripts, modules, packages, and libraries to automate networking tasks and processes.

DevNet Fundamentals

The DevNet Fundamentals course teaches students how to automate and deploy network solutions in the Cisco Environment. This course includes APIs, Scripting, Python programming, and software version control. This course prepares students for the Cisco DevNet Associate (DevNet) 200-901 exam.

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 determines how to deploy automated solutions with scripting, APIs, and web application services for continuous integration.

The learner determines how to use industry standard tools for automation.

The learner determines how to secure networks with firewalls, system monitoring, and vulnerability analysis.

BSNES Capstone Project

The BSNES Capstone Project consists of learners submitting a network design proposal, a virtual network implementation, and a post-implementation report describing their experience developing and implementing the capstone project. The capstone project and scope must be presented and approved by the capstone instructor prior to implementation in the .

This course covers the following competencies:

The learner designs network infrastructures and system standards that address business needs.

The learner deploys validated network infrastructure solutions.

Information Assurance

Introduction to Cryptography

Introduction to Cryptography introduces skills in applying cryptography principles in alignment with organizational and information security guidelines. Students will determine requirements and techniques for cryptanalysis. This course builds skills in implementing encryption methods with symmetric and asymmetric 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 applies cryptography principles in alignment with organizational and information security guidelines.

The learner implements encryption methods with symmetric and asymmetric algorithms.

Accessibility and Accommodations

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

Need More Information? WGU Student Services

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

Student Services team members also assist with unresolved concerns to find equitable resolutions. To contact the Student Services team, please feel free to call 877-435-7948 or e-mail studentservices@wgu.edu. We are available Monday through Friday from 6:00 a.m. to 10:00 p.m., 7: . . 7: . ., . .

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

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