



Bachelor of Science in **Information Technology, Software Emphasis**

The Bachelor of Science in Information Technology (IT) provides a solid foundation in computer information systems and technologies, including programming, web systems, project management, networks, operating systems, databases, and security. In addition to the IT content, the degree program includes a broad, collegiate-level education. The program is primarily designed for those who have some technical knowledge and are ready to move to increased levels of expertise and responsibility in the information technology field. The IT component of the Bachelor of Science program consists of four domains of study: IT fundamentals, software, networks and IT project management. There are eight areas of study (sub-domains) that students master including IT fundamentals, operating systems, software, networks, database, web systems, security, and project management. At the end of the program, students develop a comprehensive portfolio and complete a capstone project. Students who are seeking a specialization in one of the sub-domains of software, networks, database or security can complete the basic IT degree program and pass additional assessments to earn one of these designated emphases.

Students seeking the BS IT—Software Emphasis demonstrate additional competencies in this area by obtaining the Sun Certified Java Programmer and passing the CIW Perl Fundamentals Exam. Students who have passed these prior to enrollment will have the requirement cleared.

Understanding the Competency-Based Approach

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

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

The benefit of this competency-based system is that it makes it possible for people who are knowledgeable about a particular subject to make accelerated progress toward completing a WGU degree even if they lack college experience. You may have gained your skills and knowledge of a subject on the job, accumulated wisdom through years of life experience, or, indeed, took a course on a particular subject. WGU awards a degree to you based on the skills and knowledge that you possess and can demonstrate, not the number of credits you have on your transcript.

Accreditation

Western Governors University is the only university in the history of American higher education to have earned accreditation from four regional accrediting commissions. WGU's accreditation was awarded by (1) the Northwest Commission on Colleges and Universities, (2) the Higher Learning Commission of the North Central Association of Colleges and Schools, (3) the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges, and (4) the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges. The university's accreditation status is now managed by the Northwest Commission on Colleges and Universities (NWCCU). The university is also accredited by the Distance Education and Training Council (DETC), and the WGU Teachers College is accredited by the National Council for Accreditation of Teacher Education (NCATE). The nursing programs are accredited by the Commission on Collegiate Nursing Education (CCNE). The Health Informatics program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

The Degree Plan

The focus of your program is your personalized Degree Plan. The Degree Plan is a detailed blueprint of the learning resources and assessments that comprise your program. The length of your program depends on both the amount of new information you need to learn and the amount of time you plan to devote each week to study.

Students will vary widely in the specific skills and information they need to learn. For example, some may be highly knowledgeable in a subject matter and would not need to engage in new learning opportunities. Others may find that portions of the program require completely new learning and that they may need to take an online class or participate in a study module to acquire the knowledge and skills needed to pass the program competencies in that area. Some individuals may be able to devote as little as 15–20 hours per week to the program, while others may have more time. For this reason, you will complete pre-assessments to help your mentor form a profile of your prior knowledge and experience for use in creating your Degree Plan.

WGU’s Mentoring Approach

Our mentoring approach is a powerful component of the WGU educational experience. When you enroll at WGU, you will begin interacting with your personal mentor, course mentors, and support staff. Your mentor takes an active role and a personal interest in your success. Whether by e-mail or phone, your mentor will be your “point person” of communication throughout your program. Your mentor will help motivate you to work hard to complete your program. When you have questions or concerns, your mentor team will help you resolve them.

You and your mentor will work together to evaluate your educational background, strengths, and weaknesses. With this analysis, your mentors will help determine in which areas you are already competent (and can move quickly to assessment) and areas you need to work on; this will become your personalized Degree Plan. Your mentor will direct you to the Courses of Study that contain the best learning resources for you (courses, texts, independent study modules, etc.) and are supported by course mentors that serve as your content experts for each area of study. As you proceed through your academic program, you and your mentor will determine when you are ready for the required assessments. If you are ready, your assessment will be scheduled. You will follow this same process as you proceed through each domain.

Connecting with Other Mentors and Fellow Students

As you proceed through your Degree Plan, you may also have direct contact with other faculty members. These communications can take a variety of forms, including participation in learning communities, office hours via the courses of study, and webinars. As a WGU student, you will have access to your own personal MyWGU Student Portal that will provide a gateway to courses of study, learning communities, and program communities where you will have interactions with faculty and other students. Courses of study and communities are specifically designed to support you as you develop competencies in preparation for your assessments through the utilization of threaded discussions, blogs, and chats that are guided by content experts. You will access your program community during the Education Without Boundaries introductory 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 a Student Services Associate to help you and your mentor solve any special problems that may arise.

Education Without Boundaries Orientation

Education Without Boundaries (EWB) is a required orientation that focuses on acquainting the student with WGU’s competency-based model, distance education, technology, and other resources and tools available for students. You will also utilize tutorials, message boards, online

chats, and other activities to connect with other students in your program. This orientation is completed before you 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 on demonstration of competency. However, if you have completed college coursework at another accredited institution, you may have your transcripts evaluated and may be able to have some lower-division or co-requisite assessments cleared. The guidelines for determining what will “clear” through transfer vary based on the degree program.

The following guidelines generally apply: Upper-division degree requirements cannot be cleared through prior college credit. However, students who have already demonstrated competence by passing certain industry certification exams within the past five years may “clear” some of the upper-division assessments. The certifications that will clear WGU requirements vary by program. WGU does not clear any requirements based on a student's professional experience and does not perform a "resume review" or "portfolio review" that will automatically clear 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. Your terms are six months long. Longer terms and continuous enrollment allow you to focus on your studies without the hassle of unnatural breaks between the shorter terms that you would experience in a more traditional environment. At the end of every six-month term, you and your mentor will review the progress you have made and revise your Degree Plan for your next six-month term.

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

WGU has assigned competency units to each assessment so that we can track your progress through the program. A competency unit is equivalent to one semester credit of learning. Some assessments may be assigned three competency units while other assessments may be as large as 12 competency units.

Satisfactory Academic Progress (SAP) is particularly important for financial aid students because you must make 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. As full-time students, WGU graduate students must enroll in at least eight competency units each term, and undergraduate students must enroll in at least 12 competency units each term. In order to remain in good academic standing, you *must* complete at least 66.67% of the units you attempt – including any assessments you add to your term to accelerate your progress. Additionally, during your first term at WGU you must pass at least three 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.

Assessments

Your Degree Plan will include the assessments needed to complete your program. To obtain your degree you will be required to demonstrate your skills and knowledge by completing the following assessments:

Performance Assessments contain, in most cases, multiple scored tasks such as projects, essays, and research papers. Performance assessments contain detailed instructions and rubrics for completing each task and are submitted in TaskStream, an online project management and grading tool.

Objective Assessments are designed to evaluate your knowledge and skills in a domain of knowledge. Most 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.

Essay Assessments are used to measure your ability to integrate and apply concepts. Your writing will be scored against competency-based rubrics established by the faculty.

Certification Assessments are used to determine competency in specific IT skills. Your program will include certifications from Microsoft, CompTIA, Sun Microsystems, and CIW. These exams may include performance items, simulations, and/or objective exam questions. Each certifying organization sets the passing score that WGU follows to award you credit for earned competencies. More details on individual certification exams will be provided later in this document

Capstone Project: The Capstone Project is the culmination of the student's WGU degree program. It requires the student to demonstrate the integration and synthesis of competencies in all domains required for the degree, particularly in the area of emphasis.

As previously mentioned, we have assigned competency units (CUs) to each assessment in order to measure your academic progress. As an undergraduate student, you will be expected to enroll in a minimum of 12 competency units each term. A standard plan for the program, at 12

units per term, for a student who has no transfer units would look similar to the one on the next 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, INFORMATION TECHNOLOGY – SOFTWARE EMPHASIS

CODE	ASSESSMENTS	CU	TERM
WFV1	IT Fundamentals I	3	1
AGC1	Foundations of College Mathematics	3	1
BBC1	Communications Foundations	2	1
CLC1	Reasoning and Problem Solving	3	1
LAE1	Language and Communication: Essay	2	1
LUT1	Language and Communication: Presentation	2	2
QBT1	Language and Communication: Research	3	2
AXV1	IT Fundamentals II	4	2
CPV1	IT Fundamentals III	4	2
INC1	Integrated Natural Sciences	4	3
INT1	Integrated Natural Sciences Applications	4	3
DFV1	Web Development Fundamentals	3	3
CUV1	Web Technologies	4	3
BOV1	Web Programming	4	4
GAC1	Finite Mathematics	2	4
HHT1	Finite Mathematics Applications	2	4
DHV1	Windows OS Fundamentals	3	4
DIV1	Windows Server Admin Fundamentals	3	4
CWV1	Network Fundamentals	3	5
CRV1	Networks	4	5
QLT1	Quantitative Literacy: Quantitative Problem Solving and Applications	3	5
DEV1	Security Fundamentals	3	5
CTV1	Security	4	6
DJV1	Software Development Fundamentals	4	6
BNC1	Organizational Behavior and Leadership	3	6
IWC1	Literature, Arts and the Humanities	2	6
IWT1	Literature, Arts and the Humanities: Analysis and Interpretation	2	7
BVC1	Geography	3	7
KET1	Introduction to Programming	4	7
CVV1	Database Fundamentals	3	7
CJV1	Database I	4	8
KFT1	Object Oriented Design and Development	4	8
TPV1	Project Management	6	8
ANV1	Software I	6	9

WPV1	Software II	3	9
SBT1	Technical Writing	3	9
RHT1	IT - Software Capstone Written Project	4	9

In this example, the program will take nine terms for the student to complete. The standard path shown above lists the courses of study (assessments) and the associated competency units by term. The Degree Plan will include greater detail about the courses of study, including the assessments and their associated standard learning resources.

Learning Resources

You will work with your mentor to select the various learning resources needed to prepare for the required assessments. In most cases, the learning materials you will use are independent learning resources such as textbooks, e-learning modules, study guides, simulations, virtual labs, and tutorials. WGU works with dozens of educational providers, including enterprises, publishers, training companies, and higher educational institutions to give you high quality and effective instruction that matches the competencies that you are developing. The cost of many learning resources is included in your tuition, and you can enroll directly in those through your Degree Plan as your mentor has scheduled them. Some resources (e.g., many textbooks) are not covered by your tuition, and you will need to cover those costs separately. WGU has excellent bookstore and library arrangements to help you obtain the needed learning resources.

Areas of Study Within the Bachelor of Science in Information Technology – Software Emphasis

The WGU Bachelor of Science in Information Technology program was developed in consultation with our IT Council, which is made up of industry experts representing all facets of the discipline from the high-tech business world to national research laboratories. The degree uses industry-endorsed certifications from Microsoft, CompTIA, Oracle, and CIW to validate a student's skill competency. Additionally, the competencies in quantitative literacy, language and communications, and problem-solving assure that the graduate has the well-rounded educational background that is required in today's challenging environment.

The following section includes the larger domains of knowledge, which are then followed by the subject-specific subdomains of knowledge, their associated assessments (including the four-character code that is used to identify the assessment), and the sample learning resources that have recently been used to help students gain the competencies needed to pass the assessments. 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. Please note that the learning resources included in the following sections are *sample resources* that will vary based on your own Degree Plan and the resources current at the time you enroll in the program. 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.

Information Technology Fundamentals Domain

This domain covers the foundations of the field of information technology. It prepares the student for the subject matter subdomains of the program. To clear a subdomain, the transcript must show that students have taken equivalent classes in the subdomain content areas and passed those courses with a C grade or higher at an accredited institution of higher education. Certain industry certifications will also transfer or clear a subdomain.

IT Fundamentals I

Content focuses on networked resources, hardware and software for the Internet business, and web browser function, use, configuration, and customization. The student will also organize and produce a simple but functioning website.

IT Fundamentals I (WFV1)

Proctored at an authorized Prometric/Pearson Vue Testing Center, computer-based CIW Web Foundations Associate exam (IDO-510)

Sample Learning Resources:

Certification Partners provided by CIW which includes access to the study kits, online exercises, course review questions, practice exams, and online assessments for Internet Business Foundations, Site Development Foundations, and Network Technology Foundations.

HTML Fundamentals provided by LearnKey is an optional video tutorial to help you learn more HTML.

Skillsoft modules provide text, video and exercises, as well as TestPrep and Mentoring.

IT Fundamentals II and III

Content focuses on understanding the personal computer components, and their function, in a desktop system as well as computer data storage and retrieval; classifying, installing, configuring, optimizing, upgrading, and troubleshooting printers, laptops, portable devices, operating systems, networks, and system security; recommending 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/human accidents in a technological environments; and effective communication with colleagues and clients as well as job-related professional behavior.

IT Fundamentals II (AXV1)

Proctored at an authorized Prometric/Pearson Vue Testing Center, computer-based CompTIA A+ Essentials exam (220-701)

IT Fundamentals III (CPV1)

Proctored at an authorized Prometric/Pearson Vue Testing Center, computer-based CompTIA A+ Practical Application exam (220-702)

Sample Learning Resources:

LabSim by TestOut, A+ Essentials (Exam 220-701) and A+ Practical Application exam (220-702)

SkillSoft modules provide text, video and exercises, as well as TestPrep and Mentoring and include an e-text version of the following text:

Meyers, Mike. *All-in-one CompTIA A+ certification exam guide (Exams 220-701 & 220-702)* (7th ed.). ISBN: 9780071701334. (e-text, cost of this resource is included in tuition and fees)

Foundations Domain

The Foundations domain focuses on basic subject matter knowledge that is typically required for baccalaureate level study.

Foundations

Focuses on application of grammatical standards, reading skills, basic numeracy and calculation skills, basic algebra skills, basic geometry principles, and basic data and probability skills.

Foundations of College Mathematics (AGC1)

Proctored, computer-based objective exam

Communications Foundations (BBC1)

Proctored, computer-based objective exam

Sample Learning Resources:

MyFoundationsLab in MyLabsPlus. This online interactive system allows students to move at their own pace as they work through the content to develop language and communication and quantitative literacy skills.

Liberal Arts Domain

The liberal arts domain focuses on basic subject matter knowledge that is typically included in baccalaureate level programs. Evaluation of your previous college transcripts may clear assessment requirements for some areas of the liberal arts domain, which could shorten your program of study by removing assessments. To waive or clear a subdomain, the transcript must show that you have taken equivalent classes in the subdomain content areas and passed those classes with a C grade or higher at an accredited institution of higher education.

Collegiate Level Reasoning and Problem Solving

Content includes problem identification and clarification, planning and information gathering, identifying assumptions and values, analysis and interpretation of information and data, reaching well-founded conclusions, and identifying the role of critical thinking in the disciplines and professions.

Reasoning and Problem Solving (CLC1)

Proctored, computer-based objective exam

Sample Learning Resources:

Collegiate Level Reasoning and Problem-Solving Skills provided by MindEdge.

This online interactive module system allows students to move at their own pace as they develop competency and includes an e-text version of the following text:

Paul, R., & Elder, L. (2006). *Critical thinking: Tools for taking charge of your learning and your life* (2nd ed.). Upper Saddle River, NJ: Pearson Prentice Hall. ISBN 0-13-114962-8. (e-text, cost of this resource is included in tuition and fees)

Language and Communication

Content focuses on collegiate reading skills, basic information retrieval skills, writing skills, and speaking and writing skills.

Language and Communication: Essay (LAE1)

Performance assessment that includes writing

Language and Communication: Presentation (LUT1)

Performance assessment that includes an oral presentation

Language and Communication: Research (QBT1)

Performance assessment that includes writing a research paper

Sample Learning Resources:

Language and Communication: Essay provided by Pearson CourseCompass. This online, interactive resource includes e-text versions of the following texts:

Faigley, L. (2007). *Writing: A guide for college and beyond*. New York: Pearson Longman. ISBN: 0-321-39626-X. (e-text, cost of this resource is included in tuition and fees)

Ruszkiewicz, J., Seward, D. E., & Hairston, M. (2007). *SF writer* (4th ed.). New York: Pearson Longman. ISBN: 0-13-233458-5. (e-text, cost of this resource is included in tuition and fees)

Smith, B. D. (2007). *The reader's handbook: Reading strategies for college and everyday life* (3rd ed.). New York: Pearson Longman. ISBN-10: 0321476840. (e-text, cost of this resource is included in tuition and fees)

Language and Communication: Research and **Language and Communication: Presentation** provided by MindEdge. These online, interactive modules allow students to move at their own pace as they develop competency.

Natural Science

Content focuses on scientific concepts and inquiry as well as key concepts across and within disciplines of natural science.

Integrated Natural Sciences (INC1)

Proctored, computer-based objective exam

Integrated Natural Sciences Applications (INT1)

Performance assessment that utilizes scientific inquiry and analysis of evidence

Sample Learning Resources:

Integrated Natural Science provided by Pearson CourseCompass. This online, interactive resource includes an e-text version of the following text:

Hewitt, P. G., Lyons, S., Suchocki, J., & Yeh, J. (2007). *Conceptual integrated science*. (1st ed.). San Francisco: Addison-Wesley. ISBN: 0805390383. (e-text, cost of this resource is included in tuition and fees)

Quantitative Literacy

This sub-domain focuses on the real number system, symbolic logic, number theory, set theory, graph theory and their applications.

Finite Mathematics (GAC1)

Proctored, computer-based objective assessment

Finite Mathematics Applications (HHT1)

Performance assessment

Quantitative Literacy: Quantitative Problem Solving and Applications (QLT1)

Performance assessment

Sample Learning Resources:

MyMathLab and **QLT1 MyMathLab** provided by Pearson Course Compass are online independent study courses that include e-text versions of the following texts:

Billstein, R., Libeskind, S., & Lott, J.W. (2010). *A problem solving approach to mathematics for elementary school teachers* (10th ed.). Upper Saddle River, NJ: Pearson. ISBN: 9780321570550. (e-text, cost of this resource is included in tuition and fees)

Lial, M., Hornsby, J., McGinnis, T., Salzman, S., & Hestwood, D. (2009/2010). *Developmental mathematics: Basic mathematics and algebra* (2nd ed.). Pearson Education. ISBN: 9780321599209. (e-text, cost of this resource is included in tuition and fees)

Blitzer, R. (2007). *Thinking mathematically* (4th ed.). Boston: Pearson Addison-Wesley. ISBN: 0131752049. (e-text, cost of this resource is included in tuition and fees).

Prealgebra Online provided by Thinkwell. This independent study course provides extra practice with basic operations, especially working with fractions.

Literature, Arts, and the Humanities

Content focuses on content, concepts, terminology, methodology, models, and issues within and across the disciplines of the humanities.

Literature, Arts, and the Humanities (IWC1)

Proctored, computer-based objective exam

Literature, Arts, and the Humanities: Analysis and Interpretation (IWT1)

Performance assessment that includes subjective and objective analysis and

Sample Learning Resources:

Humanities provided by MindEdge. This online interactive module system allows students to move at their own pace as they develop competency and includes e-text versions of the following texts:

Janaro, R. P., & Altshuler, T. C. (2009). *The art of being human* (9th ed.). New York: Longman. ISBN-10: 0205605427. (e-text, cost of this resource is included in tuition and fees)

Sporre, D.J. (2009). *Perceiving the arts: An introduction to the humanities (9th ed)*. New Jersey: Pearson Prentice Hall. ISBN-13: 978-0136045694. (e-text, cost of this resource is included in tuition and fees)

Geography

Content includes fundamentals of geography, places and regions, physical and human systems, and the environment.

Geography (BVC1)

Proctored, computer-based objective exam

Sample Learning Resources:

An e-text version of the following text:

Bergman, E., & Renwick, W. H. (2008). *Introduction to geography: People, places and environment* (4th ed.). Upper Saddle River, NJ: Pearson Prentice Hall. ISBN-13: 9780132238991. (e-text, cost of this resource is included in tuition and fees)

Web Development Fundamentals Domain

This domain focuses on programming web applications, working with data and services, troubleshooting and debugging web applications, client-side scripting, and configuring and deploying web applications.

Web Developer Fundamentals

Web Development Fundamentals (DFV1)

98-363: Web Developer Fundamentals exam

Sample Learning Resources:

98-363: Web Developer Fundamentals by Microsoft Official Academic Course. June 2011. ISBN: 978-0-470-88915-2.

98-363 Web Developer Fundamentals provided by uCertify includes a comprehensive Prepkit that contains questions and answers, study notes, interactive quizzes, flash cards and study tips.

Web Development Domain

This domain builds competencies in website design and development.

Web Systems and Technologies

Focuses on: using and updating web client software; web page creation and programming languages; dynamic web page fundamentals: e-commerce infrastructure; and identifying suspicious network activity and selecting the appropriate strategy to counter it.

Web Technologies (CUV1)

Proctored at an authorized Prometric Testing Center, computer-based CIW Site Designer exam (1D0-520)

Sample Learning Resources:

CIW: Web Design Specialist and **CIW: JavaScript Specialist** by Certification Partners. This resource includes self study kits, vlabs, supplemental files, movies, online exercises, course review, quizzes, and practice exams.

SkillSoft Modules provide text, video and exercises to help increase knowledge in a large variety of Web Development subjects.

Web Programming

Focuses: on applying characteristics and features of web programming languages; creating, modifying, and utilizing variables and data; decision structures; understanding functions, methods, properties, and events; client side web programming language; custom web programming language objects; controlling windows in a web programming language.

Web Programming (BOV1)

Proctored at an authorized Prometric Testing Center, computer-based CIW JavaScript Fundamentals exam (1D0-635)

Sample Learning Resources:

CIW: Web Design Specialist and **CIW: JavaScript Specialist** by Certification Partners. This resource includes self study kits, vlabs, supplemental files, movies, online exercises, course review, quizzes, and practice exams.

SkillSoft Modules provide text, video and exercises to help increase knowledge in a large variety of Web Development subjects.

Windows OS Fundamentals Domain

This domain focuses on operating system configurations, installing and upgrading client systems, managing applications, managing files, folders, and devices, and understanding operating system maintenance.

Operating System Fundamentals

Windows OS Fundamentals (DHV1)

98-349: Windows Operating System Fundamentals exam

Sample Learning Resources:

98-349: Windows Operating System Fundamentals by Microsoft Official Academic Course.

98-349 Windows Operating System Fundamentals provided by uCertify includes a comprehensive Prepkit that contains questions and answers, study notes, interactive quizzes, flash cards and study tips.

Windows Server Administration Domain

This domain focuses on server installation and roles, active directory, storage technologies, and server performance and maintenance.

Windows Server Administration

Focuses on:

Windows Server Admin Fundamentals (DIV1)

98-365 Windows Server Administration Fundamentals exam

Sample Learning Resources:

98-365 Windows Server Administration Fundamentals by Microsoft Official Academic Course. ISBN: 978-0-470-90182-3.

98-365 Windows Server Administration Fundamentals provided by uCertify includes a comprehensive Prepkit that contains questions and answers, study notes, interactive quizzes, flash cards and study tips.

Network Fundamentals Domain

This domain focuses on network infrastructures, wired and wireless networks, network hardware, Open Systems Interconnection (OSI), and protocols and services.

Network Fundamentals

Network Fundamentals (CWV1)

98-366 Network Fundamentals exam

Sample Learning Resources:

98-366 Network Fundamentals by Microsoft Official Academic Course. ISBN: 978-0-470-90183-0.

98-366 Network Fundamentals provided by uCertify includes a comprehensive Prepkit that contains questions and answers, study notes, interactive quizzes, flash cards and study tips.

Systems Administration and Management Domain

This domain covers operating systems, project management, networking, and information security.

Networks I

Focuses on: network topologies including: protocols, ports, addressing schemes, routing, and wireless communication standards; physical and logical topologies, including wiring standards; differentiating, installing, and configuring network devices; troubleshooting network connectivity

and performance issues as well as common security threats; and using hardware and software utilities to track and maintain network performance in optimized state.

Networks (CRV1)

Proctored at an authorized Prometric Testing Center, computer-based CompTIA Network+ exam (2009 edition).

Sample Learning Resources:

SkillSoft modules provide text, video and exercises and includes an e-text version of the following text:

Meyers, Mike. *All-in-one CompTIA Networks+ exam guide*. ISBN: 9780071614870. (e-text, cost of this resource is included in tuition and fees)

Network+ Exam N10-004 provided by uCertify includes a comprehensive Prepkit that contains questions and answers, study notes, interactive quizzes, flash cards and study tips.

LabSim by TestOut, Networks+ (2009). ISBN: 978-1-935080-33-6.

Security I

Focus on: basic concepts of security and security threats; recommending security procedures and controlling access by authenticating users and groups; identifying security needs and recommending appropriate security practices and strategies; encryption in network security; procedures for organizational operations; and evaluating risks associated with network security and recommending monitoring strategies and methods.

Security (CTV1)

Proctored at an authorized Prometric Testing Center, computer-based CompTIA Security+ exam (2011 edition)

Sample Learning Resources:

SkillSoft modules provide text, video and exercises, as well as TestPrep and Mentoring and include an e-text version of the following text:

Dulaney, E. (2011). *CompTIA Security+ 301 deluxe study guide* (2nd ed). Indianapolis, IN: Sybex-Wiley Publishing Inc. ISBN: 978-1118014745. (e-text, cost of this resource is included in tuition and fees)

LabSim by TestOut, Security+ (2011)

Security+ Exam SY0-301 provided by uCertify includes a comprehensive Prepkit that contains questions and answers, study notes, interactive quizzes, flash cards and study tips.

Project Management

Focuses on skills and concepts students need to know to plan and implement projects. The project initiation and planning process is covered in-depth, culminating in the creation of a project schedule. Learning how to manage business concerns such as cost and risk is balanced by thorough the coverage of best practices in managing people and resources. Students will also learn how to manage change and the steps necessary in closing a project.

Project Management (TPV1)

Proctored at an authorized Prometric Testing Center, computer-based CompTIA Project+ 2009 exam

Sample Learning Resources:

SkillSoft modules provide text, video and exercises and includes an e-text version of the following text:

Philips, J. (2010). *IT project management: On track from start to finish* (3rd ed.). New York, NY: McGraw-Hill. ISBN: 978-0071700436. (e-text, cost of this resource is included in tuition and fees.

CompTIA Project+ 2009 PK0-003 provided by uCertify includes a comprehensive Prepkit that contains questions and answers, study notes, interactive quizzes, flash cards and study tips.

Security Fundamentals Domain

This domain focuses on security layers, operating systems security, auditing policies, network security, client security software, and server security software.

Security Fundamentals

Security Fundamentals (DEV1)

98-367 Security Fundamentals exam

Sample Learning Resources:

98-367 Security Fundamentals by Microsoft Official Academic Course. ISBN: 978-0-470-90184-7.

98-367 Security Fundamentals provided by uCertify includes a comprehensive Prepkit that contains questions and answers, study notes, interactive quizzes, flash cards and study tips.

Software Development Fundamentals Domain

This domain focuses on the fundamentals of core programming, object-oriented programming, software development, web applications, desktop applications and user interfaces, and databases.

Software Development Fundamentals

Software Development Fundamentals (DJV1)

98-361 Software Development Fundamentals exam

Sample Learning Resources:

98-361 Software Development Fundamentals by Microsoft Official Academic Course. ISBN: 978-0-470-88911-0.

98-361 Software Development Fundamentals provided by uCertify includes a comprehensive Prepkit that contains questions and answers, study notes, interactive quizzes, flash cards and study tips.

Organizational Behavior and Management Domain

Understanding how to lead and manage in the business environment is critical to a business graduate's success in the workplace. This domain includes two objective assessments: Principles of Management and Fundamentals of Organizational Behavior and Management. Students are asked to demonstrate the ability to apply these concepts in a series of scenario-based problems in the leadership concepts and applications tasks. Prior coursework does not transfer to meet the requirements of this domain.

Organizational Behavior and Management

Focuses on management and leadership concepts and applications.

Organizational Behavior and Leadership (BNC1)

Proctored, computer-based objective exam

Sample Learning Resources:

CourseSmart provides an e-text version of the following text:

Robbins, S. P., & Judge, T. A. (2006) *Organizational behavior* (12th ed.) Prentice Hall. ISBN-13: 9780131890954. (e-text, cost of this resource is included in tuition and fees)

SkillSoft modules provide text, video and exercises to help increase knowledge in Leadership, Management, Human Resource Management, and Organizational Behavior.

Software Development Domain

This domain builds on competencies in software development and practice with the object-oriented language Java.

Introduction to Programming

This subdomain covers skills and concepts students need to know to understand the basic syntax and structure of the Java programming language.

Introduction to Programming (KET1)

This is a performance assessment in which students develop a portfolio of Java applications.

Sample Learning Resources:

MySQL and NetBeans or Java SE Development Kit (JDK)

Skillsoft provides an e-text version of the following text that also has a companion website:

Horstmann, C. *Big java: Compatible with java 5, 6, and 7* (4th ed.) ISBN: 9780470509487. (e-text, cost of this resource is included in tuition and fees)

Object Oriented Design and Development (KFT1)

This is a culminating activity that results in the student developing one or more Java applications with documentation.

Sample Learning Resources:

Java for Everyone provided by WileyPLUS, is an online learning environment that includes programming activities, source code for chapter examples, animations, screencasts and an e-text version of the following text:

Horstmann, C. (2010) *Java for everyone*. ISBN: 978-0-470-46150-1 (e-text, cost of this resource is included in tuition and fees)

Database Fundamentals Domain

This domain focuses on core database concepts, manipulating data, data storage, and database administration.

Database Fundamentals

Database Fundamentals (CVV1)

98-364 Database Fundamentals exam

Sample Learning Resources:

98-364 Database Fundamentals by Microsoft Official Academic Course. ISBN: 978-0-470-88916-9.

98-364 Database Fundamentals provided by uCertify includes a comprehensive Prepkit that contains questions and answers, study notes, interactive quizzes, flash cards and study tips.

Databases Domain

This domain builds on competencies in database theories and practice with relational database concepts.

Database I

This subdomain focuses on: distinguishing between basic database terms and concepts, their usage, and the type of database languages; selecting appropriate database designs, and identifying design solutions that address application needs; normalization techniques in database design; using database design best practices when creating conceptual, logical, enterprise, and physical database design models; describing and applying SQL concepts; using relational algebra to perform database operations; recommending appropriate security-related configuration activities on database systems.

Database I (CJV1)

Proctored at an authorized Prometric Testing Center, computer-based CIW v5 Database Design Specialist (1D0-541) exam

Sample Learning Resources:

Certification Partners provided by CIW includes access to a student guide, support files, course review, exercises, and practice exams for Database Design Specialist and Methodology.

CIW Database Design Specialist 1D0-541 provided by uCertify includes a comprehensive Prepkit that contains questions and answers, study notes, interactive quizzes, flash cards and study tips.

Software Emphasis Area

Students pursuing a Bachelor of Science in Information Technology may elect this emphasis area. It will enable you to obtain an additional certification while you earn a bachelor's degree. Students who have obtained the Sun Certified Java Programmer for the Java 2 Platform prior to enrollment will have that assessment cleared. Students who have taken and passed the CIW Perl Fundamentals Exam prior to enrollment will also have that assessment cleared. The domain cannot be cleared through previous college work or professional experience.

Software I and Software II

This subdomain covers skills and concepts students need to know, to understand, and to apply object-oriented concepts in the Java programming language and the fundamentals of the Perl programming language.

Software I (ANV1)

Java Standard Edition 6 Programmer Certified Professional Exam (1Z0-851)

Software II (WPV1)

CIW Perl Specialists exam 1D0-437 exam

Sample Learning Resources:

Skillssoft provides an e-text version of the following text:

Sierra, K. & Bates, B. (2008). *SCJP sun certified programmer for Java 6 study guide (1Z0-851)*. ISBN: 978-0-07-159106-5. (e-text, cost of this resource is included in tuition and fees)

OCP Java SE 6 Programmer SCX310-065 provided by uCertify includes a comprehensive Prepkit that contains questions and answers, study notes, interactive quizzes, flash cards and study tips.

CIW Perl Specialist provided by CIW which includes access to the study kits, online exercises, course review questions, practice exams, and online assessments for this topic.

Technical Writing

The technical requirement allows students to demonstrate that they possess the competencies to think and write in a technical and professional setting. These skills will be integrated into practice through preparation of a technical writing project capstone proposal. This subdomain cannot be cleared by a course or certification and must be taken by the student prior to working on either the portfolio or project capstone.

Technical Writing

The technical writing requirement draws from the evidence students have accumulated in improved proficiency in research and professional written communication; the ability to think about and write for different audiences; and improved style, grammar and syntax.

Technical Writing (SBT1)

Performance assessment

Sample Learning Resources:

American Psychological Association. (2009). *Publication manual of the American psychological association*. (6th ed.). ISBN: 978-1-4338-0561-5. (\$28.95)

Capstone Project

The Capstone Project is the culmination of the student's WGU degree program. It requires the student to demonstrate the integration and synthesis of competencies in all domains required for the degree, particularly in the area of emphasis. It includes a work product specified in consultation with and with the approval of the mentor. It may be a project, a set of policy recommendations, a business plan, a marketing plan, action research, a strategic plan, a product, or a service.

IT Software Capstone Project (RHT1)

The capstone project consists of a technical work product and a report that details various aspects of the product. The final product will also include a journal that contemporaneously describes the candidate's experience in developing the capstone. The topic of the capstone must be presented and approved by the student's mentor.

*Requirements and instructions for completing the capstone can be obtained from the student's mentor.

Need More Information? WGU Student Services

WGU has a Student Services team dedicated exclusively to helping students achieve their academic goals. The Student Services Office is available during extended hours to assist students with general questions and administrative or accessibility issues. The Student Services team members help students resolve issues, listen to student issues and concerns, and make recommendations for improving policy and practice based on student feedback. The Student Services team provides a formal means by which students can express their views, and those views in turn inform the decisions we make.

Student Services team members also assist students with unresolved concerns to find equitable resolutions. To contact the Student Services team, please feel free to call **(866) 903-0110** or email studentservices@wgu.edu. We are available **Monday through Friday, 6 AM to 12 AM and Saturday and Sunday, 10 AM to 7 PM, MT.**

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 AM to 12 AM and Saturday and Sunday, 10 AM to 7 PM, MT.** To contact the IT Service Desk, please call 1-877-HELP-WGU (877-435-7948) and select option 2 or email servicedesk@wgu.edu.

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