

CompuScholar, Inc.
 Correlations to the Nevada CTE Computer Science Standards
Level 1 Grades 9 - 12
"Digital Savvy" and "Python Programming"

Nevada Course Details:

Course Name:	Computer Science
Primary Cluster:	CTE - Computer Science
CIP Code(s):	11.0701 - Level 1
Credit:	1
Grade Level:	9th-12th
Program Standards Link:	Program Standards - Computer Science (2018)
Framework Link:	Curriculum Frameworks - Computer Science (2018)

CompuScholar Course Details:

Course Title:	Digital Savvy
Course ISBN:	978-0-9887070-8-5
Course Year:	2021

Course Title:	Python Programming
Course ISBN:	978-1-946113-00-9
Course Year:	2021

Note 1: Citation(s) listed may represent a subset of the instances where objectives are met throughout the course.

Note 2: Citation(s) for a "Lesson" refer to the "Lesson Text" elements and associated "Activities" within the course, unless otherwise noted. The "Instructional Video" components are supplements designed to introduce or re-enforce the main lesson concepts, and the Lesson Text contains full details.

Note 3: Citation(s) to Supplemental ("Suppl.") lessons or chapters can be found in Supplemental chapters at the end of each course.

Course Description

CompuScholar's **Python Programming** is an introductory computer science course based on the Python language. It can be combined with elements from the **Digital Savvy** course to meet Nevada's Level 1 Computer Science requirements.

For more information on all CompuScholar Computer Science options in Nevada, please see the Nevada alignments page below.

<https://www.compuscholar.com/nevada>

Syllabus and Pacing Guide to Meet State Requirements

Each line item from the Nevada Level 1 standards is covered by at least one **Digital Savvy** or **Python Programming** chapter. Sometimes, both courses support a specific requirement, though it is not necessary to learn duplicate skills from both courses. The recommended selection of chapters below illustrates one way (though not the only way) to meet 100% of Nevada Level 1 requirements in 2 semesters.

Digital Savvy (Semester 1)	Python Programming (Semester 2)
Chapter 1, Lessons 1 - 2	Chapter 1
Chapter 2, Lessons 1 - 2	Chapter 2
Chapter 6	Chapter 3
Chapter 8	Chapter 4
Chapter 13	Chapter 5
Chapter 14	Chapter 6
Chapter 19	Chapter 7
Chapter 20	Chapter 8
Chapter 21	Chapter 9
Chapter 22	Chapter 10
Chapter 23	Chapter 11
Chapter 24	Chapter 12
Supplemental Chapter 1	Chapter 13
Supplemental Chapter 2	Supplemental Chapter 3

Course Standards

CONTENT STANDARD 1.0 : UNDERSTAND ALGORITHMS AND PROGRAMMING	DIGITAL SAVVY CITATION(S)	PYTHON PROG. CITATION(S)	LEVEL(S)
PERFORMANCE STANDARD 1.1 : APPLY ALGORITHMS			
1.1.1 Create prototypes that use algorithms to solve computational problems by leveraging prior student knowledge and personal interests	Chapter 22, Lesson 3 Suppl. Chapter 2, Lesson 2	Suppl. Chapter 3, Lesson 3	1
PERFORMANCE STANDARD 1.2 : IMPLEMENT CONTROLS			
1.2.1 Justify the selection of specific control structures when tradeoffs involve implementation, readability, and program performance, and explain the benefits and drawbacks of choices made	Chapter 23, Lessons 2, 3	Chapter 4, Lesson 2 Chapter 6, Lessons 3, 4	1
1.2.2 Design and iteratively develop computational artifacts for practical intent, personal expression, or to address a societal issue by using events to initiate instructions	Chapters 19 - 21 Chapters 22 - 23 Chapter 25	Chapter 13	1, 2

PERFORMANCE STANDARD 1.3 : UTILIZE VARIABLES			
1.3.1 Demonstrate the use of both linked lists and arrays to simplify solutions, generalizing computational problems instead of repeatedly using simple variables	Suppl. Chapter 2, Lesson 4	Chapter 6, Lessons 1, 2	1
1.3.2 Compare and contrast fundamental data structures and their uses	Suppl. Chapter 2, Lesson 4	Chapter 6, Lessons 1, 2	1
PERFORMANCE STANDARD 1.4 : CONSTRUCT SOLUTIONS USING MODULARITY			
1.4.1 Decompose problems into smaller components through systematic analysis, using constructs such as procedures, modules, and/or objects		Chapters 9, 10, 11	1
1.4.2 Create artifacts by using procedures within a program, combinations of data and procedures, or independent but interrelated programs	Chapters 22 - 23	Chapters 9, 10, 11	1
PERFORMANCE STANDARD 1.5 : DEMONSTRATE PROGRAMMING AND DEVELOPMENT			
1.5.1 Systematically design and develop programs for broad audiences by incorporating feedback from users	Chapter 14, Activity 3 Chapter 25, Activity 3	Chapter 13, Activity 2	1
1.5.2 Evaluate licenses that limit or restrict the use of computational artifacts when using resources such as libraries	Chapter 8, Lesson 5	Suppl. Chapter 2, Lesson 2	1
1.5.3 Evaluate and refine computational artifacts to make them more usable by all and accessible to people with disabilities	Suppl. Chapter 1, Lesson 3		1
1.5.4 Design and develop computational artifacts while working in team roles and using collaborative tools	Chapters 14, 25	Chapter 13	1
1.5.5 Document design decisions using text, graphics, presentations, and/or demonstrations in the development of complex programs	Chapter 13, Lesson 2 Chapter 22, Lesson 3 Chapters 14, 25, Activity 2	Chapter 13	1

CONTENT STANDARD 2.0 : UNDERSTAND COMPUTING SYSTEMS	CITATION(S)	CITATION(S)	LEVEL(S)
PERFORMANCE STANDARD 2.1 : DESCRIBE DEVICES			
2.1.1 Explain how abstractions hide the underlying implementation details of computing systems embedded in everyday objects	Chapter 1, Lessons 1, 2		1

PERFORMANCE STANDARD 2.2 : COMPARE HARDWARE AND SOFTWARE			
2.2.1 Compare levels of abstraction and interactions between application software, system software, and hardware layers	Chapter 1, Lesson 2 Chapter 2, Lessons 1, 2		1
PERFORMANCE STANDARD 2.3 : EXPLAIN TROUBLESHOOTING			
2.3.1 Develop guidelines that convey systematic troubleshooting strategies that others can use to identify and fix errors	Chapter 5, Lesson 3	Chapter 5 Chapter 13, Activity 4	1

CONTENT STANDARD 3.0 : UNDERSTAND DATA AND ANALYSIS	CITATION(S)	CITATION(S)	LEVEL(S)
PERFORMANCE STANDARD 3.1 : EVALUATE STORAGE SOLUTIONS			
3.1.1 Translate between different bit representations of real-world phenomena, such as characters, numbers, and images, e.g., convert hexadecimal colors to decimal percentages, ASCII/Unicode representation	Suppl. Chapter 2, Lessons 1, 3	Suppl. Chapter 3, Lessons 1, 2	1
3.1.2 Evaluate the tradeoffs in how data elements are organized and where data is stored	Chapter 23, Lesson 1 Suppl. Chapter 2, Lesson 4	Chapter 6, Lessons 1, 2 Suppl. Chapter 3, Lessons 1, 2	1
PERFORMANCE STANDARD 3.2 : CREATE USING COLLECTION, VISUALIZATION, AND TRANSFORMATION			
3.2.1 Create interactive data visualizations or alternative representations using software tools to help others better understand real-world phenomena	Chapter 23 Activity Suppl. Chapter 2, Lesson 5	Chapter 13 (Student-directed project on any topic)	1
3.2.2 Use data analysis tools and techniques to identify patterns in data representing complex systems	Chapter 23 Activity Suppl. Chapter 2, Lesson 5	Chapter 13 (Student-directed project on any topic)	1
PERFORMANCE STANDARD 3.3 : CREATE USING INFERENCE AND MODELS			
3.3.1 Create computational models that represent the relationships among different elements of data collected from a phenomenon, process, or model	Suppl. Chapter 2, Lesson 5	Chapter 13 (Student-directed project on any topic)	1

CONTENT STANDARD 4.0 : UNDERSTAND IMPACTS OF COMPUTING	CITATION(S)	CITATION(S)	LEVEL(S)
PERFORMANCE STANDARD 4.1 : EVALUATE THE IMPACT OF COMPUTING ON CULTURE			
4.1.1 Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices	Suppl. Chapter 1, Lessons 1, 5	Suppl. Chapter 4	1
4.1.2 Test and refine computational artifacts to reduce bias and equity deficits	Suppl. Chapter 1, Lessons 3, 5		1
4.1.3 Demonstrate ways a given algorithm applies to problems across disciplines	Suppl. Chapter 2, Lessons 2, 5	Suppl. Chapter 3, Lesson 3	1
4.1.4 Explain the potential impacts of artificial intelligence on society	Suppl. Chapter 1, Lesson 4	Suppl. Chapter 4, Lesson 4	1
PERFORMANCE STANDARD 4.2 : INCREASE SOCIAL INTERACTIONS			
4.2.1 Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields	Chapter 13, Lesson 2 Chapters 14, 25	Chapter 13	1
PERFORMANCE STANDARD 4.3 : EXPLAIN SAFETY, LAW, AND ETHICS RELATED TO COMPUTING			
4.3.1 Explain the beneficial and harmful effects that intellectual property laws can have on innovation	Chapter 8, Lesson 5	Suppl. Chapter 2, Lesson 2	1
4.3.2 Explain the privacy concerns related to the collection and generation of data through automated processes that may not be evident to users	Chapter 8, Lessons 1, 4 Chapter 18, Lesson 4 Suppl. Chapter 1, Lesson 4	Suppl. Chapter 2, Lessons 3, 4	1
4.3.3 Evaluate the social and economic implications of privacy in the context of safety, law, or ethics	Chapter 8, Lessons 1, 4 Chapter 18, Lesson 4 Suppl. Chapter 1, Lesson 4	Suppl. Chapter 2, Lessons 1, 3, 4	1

CONTENT STANDARD 5.0 : UNDERSTAND NETWORKS AND THE INTERNET	CITATION(S)	CITATION(S)	LEVEL(S)
PERFORMANCE STANDARD 5.1 : EVALUATE NETWORK, COMMUNICATION, AND ORGANIZATION			
5.1.1 Evaluate the scalability and reliability of networks, by describing the relationship between routers, switches, servers, topology, and addressing	Chapter 6, Lessons 1 - 4		1
PERFORMANCE STANDARD 5.2 : DESCRIBE CYBERSECURITY			
5.2.1 Illustrate how sensitive data can be affected by malware and other attacks	Chapter 8, Lessons 1 - 3 Chapter 18, Lesson 4 Suppl. Chapter 1, Lesson 4	Suppl. Chapter 2, Lessons 3, 4	1

5.2.2 Recommend security measures to address various scenarios based on factors such as efficiency, feasibility, and ethical impacts	Chapter 8, Lessons 1 - 3 Chapter 18, Lesson 4 Suppl. Chapter 1, Lesson 4	Suppl. Chapter 2, Lessons 3, 4	1
5.2.3 Compare various security measures, considering tradeoffs between the usability and security of a computing system	Chapter 8, Lessons 1 - 3 Chapter 18, Lesson 4 Suppl. Chapter 1, Lesson 4	Suppl. Chapter 2, Lessons 3, 4	1
5.2.4 Explain tradeoffs when selecting and implementing cybersecurity recommendations	Chapter 8, Lessons 1 - 3 Chapter 18, Lesson 4 Suppl. Chapter 1, Lesson 4	Suppl. Chapter 2, Lessons 3, 4	1

Employability Skills for Career Readiness Standards

CONTENT STANDARD 1.0: DEMONSTRATE EMPLOYABILITY SKILLS FOR CAREER	CITATION(S)	CITATION(S)	LEVEL(S)
PERFORMANCE STANDARD 1.1: DEMONSTRATE PERSONAL QUALITIES AND PEOPLE SKILLS			
1.1.1 Demonstrate a positive work ethic by coming to work every day on time, a willingness to take direction, and motivation to accomplish the task at hand	Chapter 13, Lesson 1 Chapter 24, Lesson 2 Chapters 14, 25	Chapter 13 (Team project with team roles & deliverables) Suppl. Chapter 3, Lesson 4	1, 2, 3
1.1.2 Demonstrate integrity by abiding by workplace policies and laws and demonstrating honesty and reliability	Chapter 13, Lesson 1 Chapter 24, Lesson 2 Chapters 14, 25	Chapter 13 (Team project with team roles & deliverables) Suppl. Chapter 3, Lesson 4	1, 2, 3
1.1.3 Demonstrate teamwork skills by contributing to the success of the team, assisting others, and requesting help when needed	Chapter 13, Lesson 1 Chapter 24, Lesson 2 Chapters 14, 25	Chapter 13 (Team project with team roles & deliverables) Suppl. Chapter 3, Lesson 4	1, 2, 3
1.1.4 Demonstrate positive self-representation skills by dressing appropriately and using language and manners suitable for the workplace	Chapter 13, Lesson 1 Chapter 24, Lesson 2 Chapters 14, 25	Chapter 13 (Team project with team roles & deliverables) Suppl. Chapter 3, Lesson 4	1, 2, 3
1.1.5 Demonstrate diversity awareness by working well with all customers and coworkers	Chapter 13, Lesson 1 Chapter 24, Lesson 2 Chapters 14, 25	Chapter 13 (Team project with team roles & deliverables) Suppl. Chapter 3, Lesson 4	1, 2, 3
1.1.6 Demonstrate conflict-resolution skills by negotiating diplomatic solutions to interpersonal and workplace issues	Chapter 13, Lessons 1, 3 Chapter 24, Lesson 2 Chapters 14, 25	Chapter 13 (Team project with team roles & deliverables) Suppl. Chapter 3, Lesson 4	1, 2, 3
1.1.7 Demonstrate creativity and resourcefulness by contributing new ideas and working with initiative	Chapter 13, Lesson 1 Chapter 24, Lesson 2 Chapters 14, 25	Chapter 13 (Team project with team roles & deliverables) Suppl. Chapter 3, Lesson 4	1, 2, 3

PERFORMANCE STANDARD 1.2: DEMONSTRATE PROFESSIONAL KNOWLEDGE AND SKILLS			
1.2.1 Demonstrate effective speaking and listening skills by communicating effectively with customers and employees and following directions	Chapter 24, Lesson 2	Chapter 13	1, 2, 3
1.2.2 Demonstrate effective reading and writing skills by reading and interpreting workplace documents and writing clearly	Chapters 14, 25 Activities 1, 2	Chapter 13, Activities 1, 2	1, 2, 3
1.2.3 Demonstrate critical-thinking and problem-solving skills by analyzing and resolving problems that arise in completing assigned tasks	Hands-on tasks are completed throughout the course	Hands-on tasks are completed throughout the course	1, 2, 3
1.2.4 Demonstrate healthy behaviors and safety skills by following safety guidelines and managing personal health	Chapter 24, Lesson 3		1, 2, 3
1.2.5 Demonstrate understanding of workplace organizations, systems, and climates by identifying “big picture” issues and fulfilling the mission of the workplace	Chapter 13 Chapter 24, Lessons 1, 2	Chapter 13, Lesson 1 Suppl. Chapter 3, Lessons 4, 5	1, 2, 3
1.2.6 Demonstrate lifelong-learning skills by continually acquiring new industry-related information and improving professional skills	Chapter 24, Lesson 1 Suppl. Chapter 3, Lesson 2	Suppl. Chapter 3, Lessons 4, 5	1, 2, 3
1.2.7 Demonstrate job acquisition and advancement skills by preparing to apply for a job and seeking promotion	Chapter 24, Lessons 1, 2	Suppl. Chapter 3, Lessons 4, 5	1, 2, 3
1.2.8 Demonstrate time, task, and resource management skills by organizing and implementing a productive plan of work	Chapter 13, Lesson 2 Chapters 14, 25	Chapter 13	1, 2, 3
1.2.9 Demonstrate mathematics skills by using mathematical reasoning to accomplish tasks	Chapter 10, Lessons 6, 7 Chapter 23 Activity	Chapter 7, Lessons 3, 4 Suppl. Chapter 3, Lessons 1, 2	1, 2, 3
1.2.10 Demonstrate customer service skills by identifying and addressing the needs of all customers and providing helpful, courteous, and knowledgeable service	Chapter 24, Lesson 2		1, 2, 3
PERFORMANCE STANDARD 1.3 : DEMONSTRATE TECHNOLOGY KNOWLEDGE AND SKILLS			
1.3.1 Demonstrate proficiency with job-specific technologies by selecting and safely using technological resources to accomplish work responsibilities in a productive manner	Online technical resources used throughout the course	Online technical resources used throughout the course	1, 2, 3
1.3.2 Demonstrate proficiency with information technology by using computers, file management techniques, and software/programs effectively	Computers, file management and software used throughout the course	Computers, file management and software used throughout the course	1, 2, 3

1.3.3 Demonstrate proper Internet use and security by using the Internet appropriately for work	Internet used safely and securely to access online course material	Internet used safely and securely to access online course material	1, 2, 3
1.3.4 Demonstrate proficiency with telecommunications by selecting and using appropriate devices, services, and applications	Appropriate devices and applications used throughout the course	Appropriate devices and applications used throughout the course	1, 2, 3