CompuScholar, Inc. - "Python Programming"

Alignment to Florida's **"Foundations of Programming"** Course Standards

Florida Course Details:

Course Name:	Foundations of Programming (2026+)
Course Code(s):	9007210
Credit:	1
State Standards Link:	https://www.cpalms.org/PreviewCourseProgram/Preview/4258

CompuScholar Course Details:

Course Title:	Python Programming
Course ISBN:	978-1-946113-60-3
Course Year:	2026

Course Description (from CPALMS)

This course introduces concepts, techniques, and processes associated with computer programming and software development.

Course Standards

Note 1: "Supplemental" or "Suppl." citation(s) refer to Supplemental chapters included at the end of 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 reinforce the main lesson concepts and are not cited for alignment purposes.

Note 3: A few requirements marked as "See Digital Savvy" or "See Computer Science Foundations" are met by supplemental access to our other courses.

CTE-IT.912.9007210.1 - Use oral and written communication skills in creating, expressing and interpreting information and ideas.	**CITATION(S)**
CTE-IT.912.9007210.1.1 - Select and employ appropriate communication concepts and strategies to enhance oral and written communication in the workplace.	Chapter 27, Lessons 1, 2, 3 Suppl. Chapter 1, Lessons 2, 6 Suppl. Chapter 2, Lessons 1, 4 Suppl. Chapter 3, Lessons 2, 3
CTE-IT.912.9007210.1.2 - Locate, organize and reference written information from various sources.	Chapter 1, Lesson 4 Chapter 2, Lesson 5 Suppl. Chapter 1, Lesson 4 Suppl. Chapter 3, Lessons 2, 3
CTE-IT.912.9007210.1.3 - Construct writings and/or communications using developmentally appropriate terminology.	Chapter 27, Lessons 1, 2, 3 Suppl. Chapter 1, Lessons 2, 6 Suppl. Chapter 2, Lessons 1, 4 Suppl. Chapter 3, Lessons 2, 3

CTE-IT.912.9007210.1.4 - Analyze the positive and negative impacts of technology on popular culture and personal life.	Chapter 1, Lessons 1, 4, 5 Suppl. Chapter 3, Lessons 1, 2, 3
CTE-IT.912.9007210.1.5 - Discuss how technology has changed the way people build and manage organizations and how technology impacts personal life.	Chapter 1, Lessons 1, 4, 5 Suppl. Chapter 3, Lessons 1, 2
CTE-IT.912.9007210.1.6 - Evaluate ways in which adaptive technologies may assist users with special needs.	See Digital Savvy
CTE-IT.912.9007210.1.7 - Explain how societal and economic factors are affected by access to critical information.	Suppl. Chapter 3, Lesson 2
CTE-IT.912.9007210.1.8 - Discuss the challenges (e.g., political, social, and economic) in providing equal access and distribution of technology in a global society.	Suppl. Chapter 3, Lesson 2

CTE-IT.912.9007210.2 - Explore the characteristics, tasks, work attributes, options, and tools associated with a career in software development.	**CITATION(S)**
CTE-IT.912.9007210.2.1 - Explore a variety of careers to which computing is central.	Suppl. Chapter 2, Lesson 2
CTE-IT.912.9007210.2.2 - Discuss the impact of computing on business and commerce (e.g., automated inventory processing, financial transactions, e-commerce, virtualization, and cloud computing).	See Digital Savvy
CTE-IT.912.9007210.2.3 - Evaluate the impacts of irresponsible use of information (e.g., plagiarism and falsification of data) on collaborative projects.	Chapter 1, Lesson 4 Suppl. Chapter 3, Lesson 5
CTE-IT.912.9007210.2.4 - Identify tasks performed by programmers.	Chapter 2, Lessons 2, 3, 4 Chapters 7, 15, 27 Suppl. Chapter 2, Lessons 1, 2
CTE-IT.912.9007210.2.5 - Describe how businesses use computer programming to solve business problems.	Chapter 1, Lesson 3 Chapter 2, Lesson 1 Suppl. Chapter 1, Lesson 4 Suppl. Chapter 3, Lessons 2, 3, 4
CTE-IT.912.9007210.2.6 - Investigate job opportunities in the programming field.	Suppl. Chapter 2, Lesson 2
CTE-IT.912.9007210.2.7 - Explain different specializations and the related training in the computer programming field.	Suppl. Chapter 2, Lesson 2
CTE-IT.912.9007210.2.8 - Explain the need for continuing education and training of computer programmers.	Suppl. Chapter 2, Lesson 2
CTE-IT.912.9007210.2.9 - Understand and identify ways to use technology to support lifelong learning.	Chapter 2, Lesson 4 Suppl. Chapter 2, Lessons 2, 3
CTE-IT.912.9007210.2.10 - Explain software as a service (SaaS) and how it impacts business.	Suppl. Chapter 3, Lesson 4
CTE-IT.912.9007210.2.11 - Describe ethical responsibilities of computer programmers.	Chapter 1, Lesson 4 Suppl. Chapter 3, Lesson 5

CTE-IT.912.9007210.2.12 - Identify credentials and certifications that may improve employability for a computer programmer.	Suppl. Chapter 2, Lesson 2
CTE-IT.912.9007210.2.13 - Identify devices, tools, and other environments for which programmers may develop software.	Chapter 2, Lessons 1, 2, 3 Chapters 7, 28, 29

CTE-IT.912.9007210.3 - Demonstrate an understanding of the characteristics, use, and selection of numerical, non-numerical, and logical data types.	**CITATION(S)**
CTE-IT.912.9007210.3.1 - Identify the characteristics (e.g., size, limits) and uses of different numerical and non-numerical data types.	Chapter 3, Lessons 1, 2 Chapter 4, Lesson 2 Chapter 5, Lesson 3 Chapter 6, Lesson 3
CTE-IT.912.9007210.3.2 - Explain the types and uses of variables in programs.	Chapter 3, Lessons 1, 2 Chapters 4, 5, 6 Chapter 17, Lesson 2
CTE-IT.912.9007210.3.3 - Determine the best data type to use for given programming problems.	Chapter 3, Lessons 1, 2 Chapter 4, Lesson 2 Chapter 5, Lesson 3 Chapter 13, Lesson 1
CTE-IT.912.9007210.3.4 - Compare and contrast simple data structures and their uses.	Chapters 13, 22, 23 Suppl. Chapter 1, Lesson 5
CTE-IT.912.9007210.3.5 - Identify the types of operations that can be performed on different data types (e.g., math operations on numerical data types, concatenation, and other string operations).	Chapter 4, Lessons 2, 3, 4 Chapter 5, Lessons 1, 2, 3 Chapter 8, Lesson 1
CTE-IT.912.9007210.3.6 - Evaluate arithmetic and logical expressions using appropriate operator precedence.	Chapter 5, Lessons 1, 2 Chapter 6, Lesson 2 Chapters 8, 9
CTE-IT.912.9007210.3.7 - Explain how computers store different data types in memory.	Chapter 3, Lessons 1, 2 Chapter 4, Lesson 2 Chapter 5, Lesson 3 Chapter 6, Lesson 3
CTE-IT.912.9007210.3.8 - Demonstrate the difference between "data" and "information".	See Computer Science Foundations
CTE-IT.912.9007210.3.9 - Use different number systems to represent data.	Chapter 6, Lesson 3 Suppl. Chapter 1, Lesson 1
CTE-IT.912.9007210.3.10 - Explain how national and international standards (i.e., ASCII, UNICODE) are used to represent non-numerical data.	Suppl. Chapter 1, Lesson 1
CTE-IT.912.9007210.3.11 - Use Boolean logic to perform logical operations using Boolean algebra and truth tables.	Chapter 8, Lessons 1, 2 Chapter 9, Lessons 1, 3

CTE-IT.912.9007210.4 - Distinguish between iterative and non-iterative program control structures.	**CITATION(S)**
CTE-IT.912.9007210.4.1 - Identify the uses of non-iterative and iterative programming structures using pseudocode and flowcharts.	Chapter 15, Lessons 1, 2
CTE-IT.912.9007210.4.2 - Create iterative programming structures and their uses.	Chapter 11
CTE-IT.912.9007210.4.3 - Explain how sequence, selection, and iteration are building blocks of algorithms.	Chapter 15, Lesson 1
CTE-IT.912.9007210.4.2026.4 - Identify the uses of non-iterative and iterative programming structures.	Chapters 8, 9, 11, 15
CTE-IT.912.9007210.4.2026.5 - Create iterative programming structures and their uses (e.g., loops).	Chapters 11, 15
CTE-IT.912.9007210.4.2026.6 - Create non-iterative programming structures (e.g., conditionals, procedures).	Chapters 8, 9, 15
CTE-IT.912.9007210.4.2026.7 - Use pseudocode and flowcharts to write algorithms.	Chapter 15, Lessons 1, 2

CTE-IT.912.9007210.5 - Describe the processes, methods, and conventions for software development and maintenance.	**CITATION(S)**
CTE-IT.912.9007210.5.1 - Describe a software development process that is used to solve problems at different software development stages.	Chapter 27 Suppl. Chapter 2, Lesson 1
CTE-IT.912.9007210.5.2 - Define alternative methods of program development (e.g., rapid prototyping, waterfall, spiral model, peer coding).	Chapter 27, Lesson 1 Suppl. Chapter 2, Lesson 1
CTE-IT.912.9007210.5.3 - List and explain the steps in the program development cycle.	Chapter 27, Lesson 1 Suppl. Chapter 2, Lesson 1
CTE-IT.912.9007210.5.4 - Describe different types of documentation used in the program development cycle (e.g., requirements document, program design documents, test plans).	Chapter 27, Lessons 1, 2, 3 Suppl. Chapter 2, Lesson 1
CTE-IT.912.9007210.5.5 - Describe different methods used to facilitate version control.	Suppl. Chapter 2, Lesson 1

CTE-IT.912.9007210.6 - Explain the types, uses, and limitations of testing for ensuring quality control.	**CITATION(S)**
CTE-IT.912.9007210.6.1 - Explain the uses and limits of testing in ensuring program quality.	Chapter 7, Lessons 2, 3 Chapter 27, Lesson 3 Suppl. Chapter 2, Lesson 1
CTE-IT.912.9007210.6.2 - Explain testing performed at different stages of the program development cycle (e.g., unit testing, system testing, user acceptance testing).	Chapter 7, Lesson 2 Chapter 27, Lesson 3 Suppl. Chapter 2, Lesson 1

CTE-IT.912.9007210.6.3 - Describe and identify types of programming errors.	Chapter 7, Lesson 1

CTE-IT.912.9007210.7 - Create a program design document using common design tool.	**CITATION(S)**
CTE-IT.912.9007210.7.1 - Describe different design methodologies and their uses (e.g., object-oriented design, structured design, rapid application development).	Chapter 17, Lesson 1 Chapter 27, Lesson 1
CTE-IT.912.9007210.7.2 - Describe and use tools for developing a program design (e.g., flowcharts, design documents, pseudocode).	Chapter 15, Lessons 1, 2 Chapter 27, Lessons 1, 2
CTE-IT.912.9007210.7.3 - Explain the role of existing libraries and packages in facilitating programmer productivity.	Chapter 6, Lessons 1, 2 Chapter 20, Lesson 1 Chapter 21
CTE-IT.912.9007210.7.4 - Participate and contribute to a design review of a program design developed using a common program design tool (e.g., UML, flowcharts, design documents, pseudocode).	Chapter 7, Lessons 2, 3 Chapter 15, Lessons 1, 2 Chapter 27, Lessons 1, 2 Suppl. Chapter 1, Lessons 4, 6
CTE-IT.912.9007210.7.5 - Develop a software artifact (independently and collaboratively) in phases (or stages) according to a common software development methodology (e.g., Waterfall or Spiral model).	Chapters 14, 27 Suppl. Chapter 1, Lesson 4 Suppl. Chapter 2, Lesson 1
CTE-IT.912.9007210.7.6 - Define input and output for a program module using standard design methodology.	Chapter 15, Lessons 1, 2 Chapter 27, Lessons 1, 2 Suppl. Chapter 2, Lesson 1

CTE-IT.912.9007210.8 - Solve problems using critical thinking skills, creativity and innovation.	**CITATION(S)**
CTE-IT.912.9007210.8.1 - Employ critical thinking skills independently and in teams to solve problems and make decisions.	Chapters 14, 15, 27 Suppl. Chapter 1, Lesson 4
CTE-IT.912.9007210.8.2 - Employ critical thinking and collaborative skills to resolve conflicts.	Chapter 27 Suppl. Chapter 1, Lesson 4
CTE-IT.912.9007210.8.3 - Identify and document workplace performance goals and monitor progress toward those goals.	Chapter 27 Suppl. Chapter 2, Lesson 1
CTE-IT.912.9007210.8.4 - Conduct technical research to gather information necessary for decision-making.	Chapter 27, Lessons 1, 2 Suppl. Chapter 1, Lesson 4 Suppl. Chapter 2, Lesson 1
CTE-IT.912.9007210.8.5 - Discuss digital tools or resources to use for a real-world task based on their efficiency and effectiveness, individually and collaboratively.	Chapter 27, Lessons 1, 2, 3 Suppl. Chapter 3, Lesson 4

CTE-IT.912.9007210.9 - Describe the importance of security and privacy information sharing, ownership, licensure and copyright.	**CITATION(S)**
CTE-IT.912.9007210.9.1 - Describe security and privacy issues that relate to computer networks including the permanency of data on the Internet, online identity, and privacy.	Chapter 1, Lesson 5 Suppl. Chapter 3, Lessons 1, 5
CTE-IT.912.9007210.9.2 - Discuss the impact of government regulation on privacy and security.	Chapter 1, Lessons 4 - 5 Suppl. Chapter 3, Lesson 1
CTE-IT.912.9007210.9.3 - Describe how different types of software licenses (e.g., open source and proprietary licenses) can be used to share and protect intellectual property.	Chapter 1, Lesson 4 Suppl. Chapter 3, Lesson 5
CTE-IT.912.9007210.9.4 - Explain how access to information may not include the right to distribute the information.	Chapter 1, Lesson 4 Suppl. Chapter 3, Lesson 5
CTE-IT.912.9007210.9.5 - Describe differences between open source, freeware, and proprietary software licenses, and how they apply to different types of software.	Chapter 1, Lesson 4 Suppl. Chapter 3, Lesson 5
CTE-IT.912.9007210.9.6 - Discuss security and privacy issues that relate to computer networks.	Chapter 1, Lessons 4 - 5 Suppl. Chapter 3, Lesson 1
CTE-IT.912.9007210.9.7 - Identify computer-related laws and analyze their impact on digital privacy, security, intellectual property, network access, contracts, and harassment.	Chapter 1, Lessons 4 - 5 Suppl. Chapter 3, Lessons 1, 5

CTE-IT.912.9007210.10 - Create programs that solve a problem using non-iterative and iterative algorithms.	**CITATION(S)**
CTE-IT.912.9007210.10.1 - Apply the developmental cycle methodologies to create a program.	Chapter 27 Suppl. Chapter 2, Lesson 1
CTE-IT.912.9007210.10.2 - Develop a program using string and/or numeric data types.	Chapters 3, 4, 5, 6, and throughout the course
CTE-IT.912.9007210.10.3 - Develop a program using sequential algorithms.	Chapter 2, Lesson 4 Chapter 15, Lesson 1 and throughout the course
CTE-IT.912.9007210.10.4 - Develop a program using selection structures.	Chapter 8 and subsequently throughout the course
CTE-IT.912.9007210.10.5 - Develop a program using looping structures.	Chapter 11 and subsequently throughout the course