CompuScholar, Inc.
Correlations to the Texas Essential Knowledge and Skills (TEKS): Computer Programming I

CompuScholar Course Details:

Course Title: TeenCoder: Java Programming (Abridged) **Course ISBN:** 978-0-9887070-4-7 **Course Year:** 2015

Texas Course Details:

Subject	Chapter 130. Texas Essential Knowledge and Skills for Career & Technical Education
Subchapter	Subchapter K. Information Technology
Course	§130.309. Computer Programming I (One-Credit), Adopted 2015
TEKS Coverage (%)	100%

Special Instructions to Reviewers:

Hands-on student **activities** can be found in two formats throughout the course. Some activities are separate links that lead to a **dedicated Activity description page**. Other activities are found **embedded in the lesson text** pages. Embedded activities are clearly marked as "**Work-With-Me**" sections that have special shading and borders. TEKS citations listed as "Activity" below may refer to activities in both formats.

Knowledge and Skills Statement: (1) The student demonstrates the necessary skills for career development, maintenance of employability, and successful completion of course outcomes. The student is expected to:		
Student Expectation	**Breakout**	**Citation**
(1.A) employ effective reading and writing skills	(i) employ effective reading skills	**Narrative** - Chapter 1, Lesson 4 Text **Activity**- Chapter 1, Lesson 4 Text (Work-With-Me: EULA Analysis) **Narrative** - Chapter 3, Lesson 4 Text **Activity** - Chapter 3, Lesson 4 Text (Work-With-Me: Exploring Online Help) **Activity** - Students must also read and follow lesson text and activity instructions throughout the course.

(1.A) employ effective reading and writing skills	(ii) employ effective writing skills	**Narrative** - Supplemental Lesson 2 Text **Activity** - Supplemental Activity 2 (Technical Writing) **Narrative** - Supplemental Lesson 4 Text **Activity** - Supplemental Activity 4 (Your SDLC Docs) **Activity** - Students must also write clear and commented code throughout the course.
(1.B) employ effective verbal and nonverbal communication skills	(i) employ effective verbal communication skills	**Narrative** - Chapter 21, Lesson 1 Text **Activity** - Chapter 21, Activity 1 (Project Requirements) **Narrative** - Chapter 21, Lesson 2 Text **Activity** - Chapter 21, Activity 2 (Project Design)
(1.B) employ effective verbal and nonverbal communication skills	(ii) employ effective nonverbal communication skills	**Narrative** - Chapter 21, Lesson 1 Text **Activity** - Chapter 21, Activity 1 (Project Requirements) **Narrative** - Chapter 21, Lesson 2 Text **Activity** - Chapter 21, Activity 2 (Project Design)
(1.C) solve problems and think critically	(i) solve problems	**Narrative** - Chapter 9, Lesson 3 Text **Activity** - Chapter 9, Lesson 3 Quiz **Activity** - Chapter 9 Activity (Bug Hunt) **Narrative** - Chapter 21, Lesson 4 Text **Activity** - Chapter 21, Activity 4 (Project Testing)
(1.C) solve problems and think critically	(ii) think critically	**Narrative** - Chapter 9, Lesson 3 Text **Activity** - Chapter 9, Lesson 3 Quiz **Activity** - Chapter 9 Activity (Bug Hunt) **Narrative** - Chapter 21, Lesson 4 Text **Activity** - Chapter 21, Activity 4 (Project Testing)
(1.D) demonstrate leadership skills and function effectively as a team member	(i) demonstrate leadership skills	**Narrative** - Chapter 21, Lessons 1 - 4 Text **Activity** - Chapter 21, Activities 1 - 4 (Team Project)
(1.D) demonstrate leadership skills and function effectively as a team member	(ii) function effectively as a team member	**Narrative** - Chapter 21, Lessons 1 - 4 Text **Activity** - Chapter 21, Activities 1 - 4 (Team Project)
(1.E) demonstrate an understanding of legal and ethical responsibilities in relation to the field of IT	(i) demonstrate an understanding of legal responsibilities in relation to the field of IT	**Narrative** - Chapter 1, Lesson 4 Text **Activity** - Chapter 1, Lesson 4 Quiz

(1.E) demonstrate an understanding of legal and ethical responsibilities in relation to the field of IT	(ii) demonstrate an understanding of ethical responsibilities in relation to the field of IT	**Narrative** - Chapter 1, Lesson 4 Text **Activity** - Chapter 1, Lesson 4 Quiz
(1.F) demonstrate planning and time-management skills such as project management, including initiating, planning, executing, monitoring, and controlling, and closing a project	(i) demonstrate planning skills	**Narrative** - Chapter 21, Lessons 1 - 2 Text **Activity** - Chapter 21, Activities 1 - 2 (Team Project) **Narrative** - Supplemental Lesson 4 Text **Activity** - Supplemental Activity 4 (Your SDLC Docs)
(1.F) demonstrate planning and time-management skills such as project management, including initiating, planning, executing, monitoring, and controlling, and closing a project	(ii) demonstrate time-management skills	**Narrative** - Chapter 21, Lesson 1 Text **Activity** - Chapter 21, Activity 1 (Project Requirements) **Narrative** - Supplemental Lesson 4 Text **Activity** - Supplemental Activity 4 (Your SDLC Docs)
(1.G) identify job opportunities and accompanying job duties and tasks	(i) identify job opportunities	**Narrative** - Supplemental Lesson 1 Text **Activity** - Supplemental Activity 1 (Software Engineering Careers)
(1.G) identify job opportunities and accompanying job duties and tasks	(ii) identify [job opportunities'] accompanying job duties	**Narrative** - Supplemental Lesson 1 Text **Activity** - Supplemental Activity 1 (Software Engineering Careers)
(1.G) identify job opportunities and accompanying job duties and tasks	(iii) identify [job opportunities'] accompanying job tasks	**Narrative** - Supplemental Lesson 1 Text **Activity** - Supplemental Activity 1 (Software Engineering Careers)

Knowledge and Skills Statement: (2) The student differentiates the concepts of integrity and confidentiality as related to technology in the business environment. The student is expected to:		
Student Expectation	**Breakout**	**Citation**
(2.A) define business ethics	(i) define business ethics	**Narrative** - Chapter 1, Lesson 4 Text **Activity** - Chapter 1, Lesson 4 Quiz
(2.B) distinguish between honest and dishonest business practices	(i) distinguish between honest and dishonest business practices	**Narrative** - Chapter 1, Lesson 4 Text **Activity** - Chapter 1, Lesson 4 Quiz
(2.C) examine copyright and licensing issues in the software industry	(i) examine copyright issues in the software industry	**Narrative** - Chapter 1, Lesson 4 Text **Activity** - Chapter 1, Lesson 4 Quiz
(2.C) examine copyright and licensing issues in the software industry	(ii) examine licensing issues in the software industry	**Narrative** - Chapter 1, Lesson 4 Text **Activity** - Chapter 1, Lesson 4 Quiz

(2.D) analyze the effects of unethical practices on a business	(i) analyze the effects of unethical practices on a business	**Narrative** - Chapter 1, Lesson 4 Text **Activity** - Chapter 1, Lesson 4 Quiz

Knowledge and Skills Statement: (3) The student identifies and analyzes the client project software needs and requirements. The student is expected to:		
Student Expectation	**Breakout**	**Citation**
(3.A) gather data to identify client and project requirements	(i) gather data to identify client requirements	**Narrative** - Chapter 21, Lesson 1 Text **Activity** - Chapter 21, Activity 1 (Project Requirements) **Narrative** - Supplemental Lesson 4 Text **Activity** - Supplemental Activity 4 (Your SDLC Docs)
(3.A) gather data to identify client and project requirements	(ii) gather data to identify project requirements	**Narrative** - Chapter 21, Lesson 1 Text **Activity** - Chapter 21, Activity 1 (Project Requirements) **Narrative** - Supplemental Lesson 4 Text **Activity** - Supplemental Activity 4 (Your SDLC Docs)
(3.B) identify input and output requirements	(i) identify input requirements	**Narrative** - Chapter 18, Lesson 2 Text **Activity** - Chapter 18 Activity (Address CSV) **Narrative** - Supplemental Lesson 4 Text **Activity** - Supplemental Activity 4 (Your SDLC Docs)
(3.B) identify input and output requirements	(ii) identify output requirements	**Narrative** - Chapter 18, Lesson 2 Text **Activity** - Chapter 18 Activity (Address CSV) **Narrative** - Supplemental Lesson 4 Text **Activity** - Supplemental Activity 4 (Your SDLC Docs)
(3.C) identify system processing requirements	(i) identify system processing requirements	**Narrative** - Chapter 15, Lesson 1 Text **Activity** - Chapter 15 Activity (Game Pieces) **Narrative** - Supplemental Lesson 4 Text **Activity** - Supplemental Activity 4 (Your SDLC Docs)

(3.D) develop program requirements and specifications	(i) develop program requirements	**Narrative** - Chapter 21, Lesson 1 Text **Activity** - Chapter 21, Activity 1 (Project Requirements) **Narrative** - Supplemental Lesson 4 Text **Activity** - Supplemental Activity 4 (Your SDLC Docs)
(3.D) develop program requirements and specifications	(ii) develop program specifications	**Narrative** - Chapter 21, Lesson 2 Text **Activity** - Chapter 21, Activity 2 (Project Design) **Narrative** - Supplemental Lesson 4 Text **Activity** - Supplemental Activity 4 (Your SDLC Docs)

Knowledge and Skills Statement: (4) The student develops an IT-based project plan to solve a specific problem. The student is expected to:		
Student Expectation	**Breakout**	**Citation**
(4.A) define scope of work to meet client-based project needs	(i) define scope of work to meet client-based project needs	**Narrative** - Supplemental Lesson 4 Text **Activity** - Supplemental Activity 4 (Your SDLC Docs)
(4.B) identify software development processes and issues	(i) identify software development processes	**Narrative** - Supplemental Lesson 4 Text **Activity** - Supplemental Activity 4 (Your SDLC Docs)
(4.B) identify software development processes and issues	(ii) identify software development issues	**Narrative** - Supplemental Lesson 4 Text **Activity** - Supplemental Activity 4 (Your SDLC Docs)
(4.C) explain the software system life cycle approach	(i) explain the software system life cycle approach	**Narrative** - Supplemental Lesson 4 Text **Activity** - Supplemental Activity 4 (Your SDLC Docs)

Knowledge and Skills Statement: (5) The student designs a software application plan. The student is expected to:		
Student Expectation	**Breakout**	**Citation**
(5.A) articulate the principles of system design such as procedural, object-oriented, and event-driven processes	(i) articulate the principles of system design	**Narrative** - Chapter 10, Lesson 1 Text **Activity** - Chapter 10, Lesson 1 Quiz **Narrative** - Chapter 10, Lesson 2 Text **Activity** - Chapter 10, Lesson 2 Quiz

(5.B) perform a logical design using appropriate software tools	(i) perform a logical design using appropriate software tools	**Narrative** - Chapter 17, Lesson 4 Text **Activity** - Chapter 17, Activity 2 (Algorithm Practice) **Narrative** - Supplemental Lesson 5 Text **Activity** - Supplemental Activity 5 (UML Design)
(5.C) apply algorithmic and data structure concepts	(i) apply algorithmic structure concepts	**Narrative** - Chapter 17, Lesson 4 Text (Flowcharts) **Activity** - Chapter 17, Activity 2 (Algorithm Practice) **Narrative** - Chapter 19, Lesson 3 Text **Activity** - Chapter 19 Activity (Recursive Binary Search)
(5.C) apply algorithmic and data structure concepts	(ii) apply data structure concepts	**Narrative** - Chapter 14, Lessons 1 - 3 Text **Activity** - Chapter 14 Activity (Baseball Stats) **Narrative** - Chapter 19, Lesson 3 Text **Activity** - Chapter 19 Activity (Recursive Binary Search)
(5.D) identify constraints	(i) identify constraints	**Narrative** - Chapter 9, Lesson 3 Text **Activity** - Chapter 9, Lesson 3 Quiz **Narrative** - Supplemental Lesson 4 Text **Activity** - Supplemental Activity 4 (Your SDLC Docs)
(5.E) identify modular design concepts	(i) identify modular design concepts	**Narrative** - Chapter 10, Lesson 1 Text **Activity** - Chapter 10, Lesson 1 Quiz **Narrative** - Chapter 10, Lesson 2 Text **Activity** - Chapter 10, Lesson 2 Quiz **Activity** - Chapter 10 Activity (Dog House)
(5.F) document the design specification using a defined procedure	(i) document the design specification using a defined procedure	**Narrative** - Chapter 21, Lesson 2 Text **Activity** - Chapter 21 Activity 2 (Project Design) **Narrative** - Supplemental Lesson 4 Text **Activity** - Supplemental Activity 4 (Your SDLC Docs)

Knowledge and Skills Statement: (6) The student solves problems using different types and levels of programming languages and quality assurances. The student is expected to:		
Student Expectation	**Breakout**	**Citation**
(6.A) differentiate among the concepts of data such as procedural, object-oriented, and event-driven representation	(i) differentiate among concepts of data	**Narrative** - Chapter 4, Lesson 1 Text **Activity** - Chapter 4, Lesson 1 Quiz **Activity** - Chapter 4 Activity (Experiment with Data Types) **Narrative** - Chapter 10, Lesson 2 Text **Activity** - Chapter 10, Lesson 2 Quiz
(6.B) identify current programming languages and the environment in which each is used	(i) identify current programming languages	**Narrative** - Chapter 1, Lesson 3 Text **Activity** - Chapter 1, Lesson 3 Quiz
(6.B) identify current programming languages and the environment in which each is used	(ii) identify the environments in which each [current programming language] is used	**Narrative** - Chapter 1, Lesson 3 Text **Activity** - Chapter 1, Lesson 3 Quiz
(6.C) produce procedural and object-oriented programs using structured coding with appropriate style and clarity of expression	(i) produce procedural programs using structured coding with appropriate style	**Narrative** - Chapter 2, Lesson 2 Text **Activity** - Chapter 2 Activity (Show Time) **Narrative** - Students will receive instruction on multiple procedural coding concepts (variables, loops, functions, etc) throughout the course. **Activity** - Students will complete multiple structured programming activities throughout the course.
(6.C) produce procedural and object-oriented programs using structured coding with appropriate style and clarity of expression	(ii) produce procedural programs using structured coding with clarity of expression	**Narrative** - Chapter 2, Lesson 2 Text **Activity** - Chapter 2 Activity (Show Time) **Narrative** - Students will receive instruction on multiple procedural coding concepts (variables, loops, functions, etc) throughout the course. **Activity** - Students will complete multiple structured programming activities throughout the course.

(6.C) produce procedural and object-oriented programs using structured coding with appropriate style and clarity of expression	(iii) produce object-oriented programs using structured coding with appropriate style	**Narrative** - Chapter 10, Lesson 2 Text **Activity** - Chapter 10 Activity (Dog House) **Narrative** - Chapter 11, Lessons 1 - 3 Text **Activity** - Chapter 11 Activity (Let's Go Racing!) **Narrative** - Plus Chapters 15, 16 (all lessons and activities)
(6.C) produce procedural and object-oriented programs using structured coding with appropriate style and clarity of expression	(iv) produce object-oriented programs using structured coding with clarity of expression	**Narrative** - Chapter 10, Lesson 2 Text **Activity** - Chapter 10 Activity (Dog House) **Narrative** - Chapter 11, Lessons 1 - 3 Text **Activity** - Chapter 11 Activity (Let's Go Racing!) **Narrative** - Plus Chapters 15, 16 (all lessons and activities)
(6.D) demonstrate skill in program testing	(i) demonstrate skill in program testing	**Narrative** - Chapter 9, Lesson 3 Text **Activity** - Chapter 9, Lesson 3 Quiz **Activity** - Chapter 9 Activity (Bug Hunt) **Narrative** - Chapter 21, Lesson 4 Text **Activity** - Chapter 21, Activity 4 (Project Testing)
(6.E) compare computed results with anticipated results to determine the reasonableness of the solutions	(i) compare computed results with anticipated results to determine the reasonableness of the solutions	**Narrative** - Chapter 9, Lesson 3 Text **Activity** - Chapter 9, Lesson 3 Quiz **Activity** - Chapter 9 Activity (Bug Hunt) **Narrative** - Chapter 19, Lesson 3 Text **Activity** - Chapter 19 Activity (Recursive Binary Search)
(6.F) troubleshoot technological problems	(i) troubleshoot technological problems	**Narrative** - Chapter 9, Lesson 3 Text **Activity** - Chapter 9, Lesson 3 Quiz **Activity** - Chapter 9 Activity (Bug Hunt) **Narrative** - Chapter 21, Lesson 4 Text **Activity** - Chapter 21, Activity 4 (Project Testing)

(6.G) explain the software quality assurance process	(i) explain the software quality assurance process	**Narrative** - Chapter 9, Lesson 3 Text **Activity** - Chapter 9, Lesson 3 Quiz **Narrative** - Supplemental Lesson 4 Text **Activity** - Supplemental Activity 4 (Your SDLC Docs)
(6.H) follow established quality assurance procedures for testing, identifying problems, and tracking resolutions	(i) follow established quality assurance procedures for testing	**Narrative** - Chapter 9, Lesson 3 Text **Activity** - Chapter 9 Activity (Bug Hunt) **Narrative** - Chapter 21, Lesson 4 Text **Activity** - Chapter 21, Activity 4 (Project Testing) **Narrative** - Supplemental Activity 4 (Your SDLC Docs)
(6.H) follow established quality assurance procedures for testing, identifying problems, and tracking resolutions	(ii) follow established quality assurance procedures for identifying problems	**Narrative** - Chapter 9, Lesson 3 Text **Activity** - Chapter 9 Activity (Bug Hunt) **Narrative** - Chapter 21, Lesson 4 Text **Activity** - Chapter 21, Activity 4 (Project Testing) **Narrative** - Supplemental Activity 4 (Your SDLC Docs)
(6.H) follow established quality assurance procedures for testing, identifying problems, and tracking resolutions	(iii) follow established quality assurance procedures for tracking resolutions	**Narrative** - Chapter 9, Lesson 3 Text **Activity** - Chapter 9 Activity (Bug Hunt) **Narrative** - Chapter 21, Lesson 4 Text **Activity** - Chapter 21, Activity 4 (Project Testing) **Narrative** - Supplemental Activity 4 (Your SDLC Docs)

Knowledge and Skills Statement: (7) The student recognizes issues and complies with procedures for maintaining the security of computerized information. The student is expected to:		
Student Expectation	**Breakout**	**Citation**
(7.A) identify risks to information systems facilities, data communications systems, and applications	(i) identify risks to information systems facilities	**Narrative** - Chapter 1, Lesson 5 Text **Activity** - Chapter 1, Lesson 5 Quiz
(7.A) identify risks to information systems facilities, data communications systems, and applications	(ii) identify risks to information systems data communications systems	**Narrative** - Chapter 1, Lesson 5 Text **Activity** - Chapter 1, Lesson 5 Quiz

(7.A) identify risks to information systems facilities, data communications systems, and applications	(iii) identify risks to information systems applications	**Narrative** - Chapter 1, Lesson 5 Text **Activity** - Chapter 1, Lesson 5 Quiz
(7.B) comply with federal and state legislation pertaining to computer crime, fraud, and abuse	(i) comply with federal legislation pertaining to computer crime	**Narrative** - Chapter 1, Lesson 5 Text **Activity** - Chapter 1, Lesson 5 Quiz
(7.B) comply with federal and state legislation pertaining to computer crime, fraud, and abuse	(ii) comply with federal legislation pertaining to computer fraud	**Narrative** - Chapter 1, Lesson 5 Text **Activity** - Chapter 1, Lesson 5 Quiz
(7.B) comply with federal and state legislation pertaining to computer crime, fraud, and abuse	(iii) comply with federal legislation pertaining to computer abuse	**Narrative** - Chapter 1, Lesson 5 Text **Activity** - Chapter 1, Lesson 5 Quiz
(7.B) comply with federal and state legislation pertaining to computer crime, fraud, and abuse	(iv) comply with state legislation pertaining to computer crime	**Narrative** - Chapter 1, Lesson 5 Text **Activity** - Chapter 1, Lesson 5 Quiz
(7.B) comply with federal and state legislation pertaining to computer crime, fraud, and abuse	(v) comply with state legislation pertaining to computer fraud	**Narrative** - Chapter 1, Lesson 5 Text **Activity** - Chapter 1, Lesson 5 Quiz
(7.B) comply with federal and state legislation pertaining to computer crime, fraud, and abuse	(vi) comply with state legislation pertaining to computer abuse	**Narrative** - Chapter 1, Lesson 5 Text **Activity** - Chapter 1, Lesson 5 Quiz
(7.C) identify and select controls for information systems facilities, data communications, and applications appropriate to specific risks	(i) identify controls for information systems facilities appropriate to specific risks	**Narrative** - Chapter 1, Lesson 5 Text **Activity** - Chapter 1, Lesson 5 Quiz
(7.C) identify and select controls for information systems facilities, data communications, and applications appropriate to specific risks	(ii) identify controls for information systems data communications appropriate to specific risks	**Narrative** - Chapter 1, Lesson 5 Text **Activity** - Chapter 1, Lesson 5 Quiz
(7.C) identify and select controls for information systems facilities, data communications, and applications appropriate to specific risks	(iii) identify controls for information systems applications appropriate to specific risks	**Narrative** - Chapter 1, Lesson 5 Text **Activity** - Chapter 1, Lesson 5 Quiz
(7.C) identify and select controls for information systems facilities, data communications, and applications appropriate to specific risks	(iv) select controls for information systems facilities appropriate to specific risks	**Narrative** - Chapter 1, Lesson 5 Text **Activity** - Chapter 1, Lesson 5 Quiz
(7.C) identify and select controls for information systems facilities, data communications, and applications appropriate to specific risks	(v) select controls for information systems data communications appropriate to specific risks	**Narrative** - Chapter 1, Lesson 5 Text **Activity** - Chapter 1, Lesson 5 Quiz

(7.C) identify and select controls for information systems facilities, data communications, and applications appropriate to specific risks	(vi) select controls for information systems applications appropriate to specific risks	**Narrative** - Chapter 1, Lesson 5 Text **Activity** - Chapter 1, Lesson 5 Quiz
(7.D) apply procedures used to recover from situations such as system failure and computer virus	(i) apply procedures used to recover from situations	**Narrative** - Chapter 1, Lesson 5 Text **Activity** - Chapter 1, Lesson 5 Quiz