Computer Science Evaluation Tool
2018 Curricular Materials Review

Grades 9 – 12 Computer Science[1]

PUBLISHER INFORMATION

- Publisher Name: **CompuScholar, Inc.**

- Title: **Web Design**

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- Copyright: **2017**

INSTRUCTIONS:

Publishing Company:

- Complete the course evaluation form below. Please provide written justification as to how the material meets the standard along with location references. If a justification requires additional space, please submit response on an additional document.

Review Team Member:

- Please use information and attachments to complete the course evaluation form.

- Explain any discrepancies between your findings and those provided information. Explanations and comments should directly reflect the rubric.

- Further, explain any findings.

  NOTE: Unless otherwise specified, all citations refer to the "Lesson Text" component.

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[1] Idaho Computer Science Standards

SCORING:

- 0 = No Alignment – Not Evident: content as described in the Standards is not evident.
- .5 = Partial Alignment – Partially Evident: content as described in the Standards is partially evident and there are few gaps.
- 1 = High Alignment – Clearly Evident: content is fully aligned as described in the Standards and repeatedly included to guarantee extensive opportunities for students to work with the content. Alignment is clearly evident.
- N/A = Not applicable for standard.

NOTE: Per the Idaho DOE, no specific course standards are available for 10201 Web Page Design, and publishers can mark individual line items as "Not Applicable" to remove them from consideration.

STANDARDS ALIGNMENT EVALUATION RUBRIC:

Standard 1: Computing Systems (CS)

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
9-10.CS.01: Identify and evaluate what computing resources are required for a given purpose (e.g. system requirements needed to run a program, hardware, and software needed to run game X). (Grades 9-10)	CHAPTER 16, ACTIVITY 1 Instructions and Starter Files (Identify operating system and version, select and install correct version of Komodo Edit)	
9-10.CS.02: Explore the unique features of embedded computers in areas such as mobile devices, sensors, and vehicles. (Grades 9-10)	Not applicable for the 10201 Web Page Design course.	
9-10.CS.03: Create or modify a program that uses different forms of input and output. (e.g. use voice input instead of text input, use text-to-speech for output) (Grades 9-10)	CHAPTER 23, LESSON 2 and CHAPTER 24, LESSON 3 (Using hover states to animate elements based on mouse movements) CHAPTER 25, LESSON 2 (HTML Button inputs and mouse/keyboard event handling) CHAPTER 7, LESSON 1 (Text output and styling) CHAPTER 11, LESSONS 2 and 3 (Image output and styling) CHAPTER 19, ALL LESSONS (Adding audio and video output)	

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
9-10.CS.04: Demonstrate the multiple levels of abstraction that support program execution including programming languages, translations, and low-level systems including the fetch-execute cycle (e.g. model, dance, create a play/presentation). (Grades 9-10)	Not applicable for the 10201 Web Page Design course.	
11-12.CS.01: Identify and describe hardware (e.g. physical layers, logic gates, chips, components). (Grades 11-12)	CHAPTER 15, LESSON 1 (Describes major hardware components of a computer)	
11-12.CS.02: Create a model of how embedded systems sense, process, and actuate in a given environment (e.g. ocean, atmosphere, and highway) (Grades 11-12)	Not applicable for the 10201 Web Page Design course.	

Standard 2: Data Analysis (DA)

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
9-10.DA.01: Illustrate how various types of data are stored in a computer system (e.g. how sound and images are stored). (Grades 9-10)	CHAPTER 11, LESSON 1 (Image file formats) CHAPTER 19, LESSON 1 (Video file formats) CHAPTER 19, LESSON 3 (Sound file formats)	

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
9-10.DA.02: Differentiate between information access and distribution rights (e.g. write, discuss). (Grades 9-10)	CHAPTER 16, LESSON 1 (Description of property rights, intellectual property, software license agreements)	
9-12.DA.03: Compare and contrast the viewpoints on cybersecurity from the perspective of security experts, privacy advocates, the government (e.g. persuasive essay, presentation, or debate). (Grades 9-12)	Not applicable for the 10201 Web Page Design course.	
9-12.DA.04: Explain the principles of security by examining encryption, cryptography, and authentication techniques. (Grades 9-12)	CHAPTER 13, LESSON 3 (Client-side security risks) CHAPTER 16, LESSON 2 (Discussion of security risks, viruses, security options, SSL/TLS, and safe online environments)	
9-10.DA.05: Apply basic techniques for locating, collecting, and understanding the quality of small- and large-scale data sets (e.g. public data sets). (Grades 9-10)	Not applicable for the 10201 Web Page Design course.	
9-10.DA.06: Convert between binary, decimal, octal, and hexadecimal representations of data. (Grades 9-10)	Not applicable for the 10201 Web Page Design course.	

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
9-10.DA.07: Analyze the representation and trade-offs among various forms of digital information (e.g. lossy versus lossless compression). (Grades 9-10)	CHAPTER 11, LESSON 1 (Image file formats, trade-offs, and image compression, cropping and optimization) CHAPTER 19, LESSON 1 (Video file formats) CHAPTER 19, LESSON 3 (Audio file formats)	
9-12.DA.08: Analyze data and identify patterns through modeling and simulation.(Grades 9-12)	Not applicable for the 10201 Web Page Design course.	
11-12.DA.01: Use data analysis to enhance understanding and gain knowledge of complex systems to show the transformation from data to information to knowledge (e.g. using existing data sets). (Grades 11-12)	SUPPLEMENTAL LESSON 7 (Using analytics tools to understand and visualize website traffic)	
11-12.DA.02: Use various data collection techniques for different types of problems (e.g. mobile device GPS, user surveys, embedded system sensors, open data sets, social media data sets). (Grades 11-12)	SUPPLEMENTAL LESSON 7 (Using analytics tools to understand and visualize website traffic)	
11-12.DA.03: Understand and explain security policies by comparing encryption and authentication strategies (e.g. trapdoor functions and man-in-the-middle attacks). (Grades 11-12)	CHAPTER 13, LESSON 3 (Client-side security risks) CHAPTER 16, LESSON 2 (Discussion of security risks, viruses, security options, SSL/TLS, and safe online environments)	

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
11-12.DA.04: Discuss the variety of interpretations of binary sequences (e.g. instructions, numbers, text, sound, image). (Grades 11-12)	Not applicable for the 10201 Web Page Design course.	
11-12.DA.05: Use models and simulations to help formulate, refine, and test scientific hypotheses. (Grades 11-12)	Not applicable for the 10201 Web Page Design course.	

Standard 3: Impacts of Computing (IC)

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
9-10.IC.01: Explain the social and economic implications associated with unethical computing practices (e.g. software piracy, intrusion, malware, current corporate fraud examples). (Grades 9-10)	CHAPTER 16, LESSON 1 (Ethical computing, software licenses, EULAs) CHAPTER 16, LESSON 2 (Discussion of security risks, viruses, security options, SSL/TLS, and safe online environments)	
9-10.IC.02: Discuss trade-offs such as privacy, safety, and convenience associated with the collection and large scale analysis of information about individuals (e.g. social media, online shopping, how grocery/dept. stores collect and use personal data). (Grades 9-10)	Not applicable for the 10201 Web Page Design course.	

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
9-10.IC.03: Understand and explain the impact of artificial intelligence and robotics. (Grades 9-10)	Not applicable for the 10201 Web Page Design course.	
9-12.IC.04: Describe how computer science shares features with creating and designing an artifact such as in music and art. (Grades 9-12)	Not applicable for the 10201 Web Page Design course.	
9-10.IC.05: Demonstrate how computing enhances traditional forms and enables new forms of experience, expression, communication, and collaboration (e.g. virtual reality). (Grades 9-10)	CHAPTER 1, LESSON 2 (History and evolution of HTML to meet evolving scientific and business demands) CHAPTER 13, LESSON 2 (Accessibility standards make content available to disabled persons) CHAPTER 16, LESSON 3 (New HTML5 features for the modern World Wide Web)	
9-10.IC.06: Explain the impact of the digital divide on access to critical information (e.g. education, healthcare, medical records, access to training). (Grades 9-10)	Not applicable for the 10201 Web Page Design course.	
9-10.IC.07: Compare the positive and negative impacts of computing on behavior and culture. (Grades 9-10)	CHAPTER 16, LESSON 1 (Describes ethical computing, digital etiquette, plagiarism and online behavior) CHAPTER 16, LESSON 2 (Describes security risks, privacy issues and online safety)	

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
9-10.IC.08: Evaluate a computational artifact for its effectiveness for universal access (e.g. compare sample code with accessibility standards, building in access from initial design). (Grades 9-10)	CHAPTER 13, LESSON 2 (Study WCAG 2.0 guidelines for accessibility) CHAPTER 14, LESSON 2 / ACTIVITY 2 (Build and verify a website with accessibility standards)	
9-10.IC.09: Practice responsible digital citizenship (legal and ethical behaviors) in the use of technology systems and software. (Grades 9-10)	CHAPTER 13, LESSON 3 (Client-side security risks) CHAPTER 16, LESSON 1 (Ethical computing, software licenses, EULAs) CHAPTER 16, LESSON 2 (Discussion of security risks, viruses, security options, SSL/TLS, and safe online environments)	
9-10.IC.10: Explain how computer science fosters innovation and enhances other careers and disciplines. (Grades 9-10)	CHAPTER 1, LESSON 2 (History and evolution of HTML to meet evolving scientific and business demands) CHAPTER 16, LESSON 3 (New HTML5 features for the modern World Wide Web)	
9-12.IC.11: Explain the impacts of computing on business, manufacturing, commerce, and society. (Grades 9-12)	CHAPTER 13, LESSON 4 (Search Engine Optimization, marketing, e-commerce and online safety on the World Wide Web)	
11-12.IC.01: Understand the ecosystem of open source software development and its impact on global collaboration through an open-source software project (e.g. https://codein.withgoogle.com). (Grades 11-12)	CHAPTER 16, LESSON 1 (Software license agreements, open source and other forms, EULAs)	

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
11-12.IC.02: Debate laws and regulations that impact the development and use of software. (e.g. compare and contrast licensing versus certification, professional societies, professional code of ethics). (Grades 11-12)	CHAPTER 11, LESSON 1 (Copyright laws, licensing rights) CHAPTER 16, LESSON 1 (Software license agreements, EULAS, copyright law, trademarks, patents) SUPPLEMENTAL LESSON / ACTIVITY 13 (Exploration of CSTO organizations)	
11-12.IC.03: Research, analyze, and present how computational thinking has revolutionized an aspect of our culture (e.g. agriculture, communication, work, healthcare, music, art). (Grades 11-12)	CHAPTER 13, LESSON 4 (Search Engine Optimization, marketing, e-commerce and online safety on the World Wide Web) SUPPLEMENTAL LESSON 9 (Analytics tools to track visitor activity)	
11-12.IC.04: Analyze the role and impact of government regulation on privacy and security. (Grades 11-12)	CHAPTER 16, LESSON 1 (Software license agreements, open source and other forms) CHAPTER 16, LESSON 2 (Discussion of security risks, viruses, security options, SSL/TLS, and safe online environments)	
11-12.IC.05: Debate how the issues of equity, access, and power relate to the distribution of computing resources in a global society. (Grades 11-12)	Not applicable for the 10201 Web Page Design course.	
11-12.IC.06: Identify and evaluate the beneficial and harmful effects of computing innovations. (Grades 11-12)	CHAPTER 1, LESSON 2 and CHAPTER 16, LESSON 3 (Benefits of HTML to meet evolving scientific and business demands) CHAPTER 13, LESSON 2 (Benefits of accessibility guidelines to enable communication to disabled persons) CHAPTER 13, LESSON 3 (Harmful client-side security risks) CHAPTER 16, LESSON 2 (Personal privacy and security risks)	

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
11-12.IC.07: Practice responsible digital citizenship (legal and ethical behaviors) in the use of technology systems and software. (Grades 11-12)	CHAPTER 13, LESSON 3 (Client-side security risks) CHAPTER 16, LESSON 1 (Ethical computing standards, licensing agreements) CHAPTER 16, LESSON 2 (Discussion of security risks, viruses, security options, SSL/TLS, and safe online environments)	
11-12.IC.10: Summarize how computer automation and control is transforming society and the global economy (e.g. financial markets, transactions, predictions). (Grades 11-12)	CHAPTER 13, LESSON 4 (Search Engine Optimization, marketing, e-commerce and online safety on the World Wide Web) SUPPLEMENTAL LESSON 9 (Analytics tools to track visitor activity)	

Standard 4: Networks and the Internet (NI)

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
9-10.NI.01: Describe the underlying process of Internet-based services. (e.g. illustrate how information flows in a global network, servers and clients, cloud services, secure versus insecure communication). (Grades 9-10)	CHAPTER 15, LESSON 2 (Overall Internet structure) CHAPTER 15, LESSON 3 (Networking components, routers, IP addresses, DNS servers) CHAPTER 15, LESSON 4 (Network types and connections) CHAPTER 15, LESSON 5 (HTTP, FTP, SMTP and POP protocols)	
9-10.NI.02: Illustrate the basic components of computer networks, protocols and routing (e.g. team-based activities, which may include drawing a diagram of a network including routers, switches, local networks, and end user computing devices, creating	CHAPTER 15, LESSON 2 (Overall Internet structure) CHAPTER 15, LESSON 3 (Networking components, routers, IP addresses, DNS servers) CHAPTER 15, LESSON 4 (Network types and connections) CHAPTER 15, LESSON 5 (HTTP, FTP, SMTP and POP protocols)	

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
models with string and paper; see CS unplugged activities). (Grades 9-10)		
11-12.NI.01: Simulate and discuss the issues that impact network functionality (e.g. use ns3 or other free network simulators). (Grades 11-12)	CHAPTER 11, LESSON 1 (Image optimization to improve web page loading speeds) SUPPLEMENTAL LESSON 1 (Web server hardware and characteristics, network bandwidth, virtualization)	
11-12.NI.02: Examine how encryption is essential to ensuring privacy and security over the internet. (Grades 11-12)	CHAPTER 13, LESSON 3 (Client-side cookies are not encrypted) CHAPTER 16, LESSON 2 (SSL/TLS for secure online communications)	

Standard 5: Algorithms and Programming (AP)

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
9-12.AP.01: Design and develop a software artifact by leading, initiating, and participating in a team (e.g. pair programming, agile software development). (Grades 9-12)	CHAPTERS 14 and 28, ALL LESSONS and ACTIVITIES (Team project with full lifecycle development) SUPPLEMENTAL LESSON 4 / ACTIVITY 4 (Project management and software lifecycles) SUPPLEMENTAL LESSON 8 (Working as a team)	

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
9-12.AP.02: Demonstrate how diverse collaboration, both inside and outside of a team, impacts the design and development of software products (e.g. students show their own artifacts and demonstrate and reflect how diverse collaboration made a product better). (Grades 9-12)	CHAPTERS 14 and 28, ALL LESSONS and ACTIVITIES (Team projects include inputs from all team members) SUPPLEMENTAL LESSON / ACTIVITY 4 (Project management and software lifecycles) SUPPLEMENTAL LESSON (Working as a team)	
9-10.AP.03: Compare a variety of programming languages available to solve problems and develop systems. (Grades 9-10)	CHAPTER 13, LESSON 3 (Comparison of server-side and client-side scripting for dynamic and interactive web sites)	
9-12.AP.04: Explore security issues that might lead to compromised computer programs (e.g. ambiguous function calls, lack of error checking of the input, buffer overflow, SQL injection attacks, denial of service attacks). (Grades 9-12)	CHAPTER 13, LESSON 3 (Client-side security risks) CHAPTER 16, LESSON 2 (SSL/TLS for secure online communications)	
9-12.AP.05: Classify and define the different types of software licenses in order to understand how to apply each one to a specific software example. (Grades 9-12)	CHAPTER 16, LESSON 1 (Software license agreements, open source and other forms, EULAs)	

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
9-10.AP.06: Understand the notion of hierarchy and abstraction in high-level languages, translation, instruction sets, and logic circuits. (Grades 9-10)	Not applicable for the 10201 Web Page Design course.	
9-10.AP.07: Explore issues surrounding mobile computing by creating a mobile computing application (e.g. App Inventor). (Grades 9-10)	CHAPTER 10, LESSON 1 (Mobile web site design) CHAPTER 13, LESSON 2 (Making web sites accessible on mobile devices with small screens) CHAPTER 16, LESSON 3 (HTML5 to add mobile device features - geolocation and SVG)	
9-10.AP.08: Create software solutions by applying analysis, design, implementation and testing techniques. (Grades 9-10)	CHAPTERS 14 and 28, ALL LESSONS and ACTIVITIES (Team projects include full lifecycle development) SUPPLEMENTAL LESSON / ACTIVITY 4 (Project management and software lifecycles)	
9-10.AP.09: Demonstrate code reuse by creating programming solutions using APIs and libraries (e.g. using text to speech in App Inventor, using Twitter API). (Grades 9-10)	CHAPTER 6, LESSON 5 (Web sites use external / shared CSS files to re-use CSS rules across multiple pages) CHAPTERS 26 and 27, ALL LESSONS (Use jQuery library to achieve special effects)	
9-10.AP.10: Illustrate the flow of execution and output of a given program (e.g. flow and control diagrams). (Grades 9-10)	CHAPTER 13, LESSON 1 (Building site maps, page layouts and storyboards to visualize web site behavior)	

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
9-10.AP.11: Illustrate how mathematical and statistical functions, sets, and logic are used in computation. (Grades 9-10)	Not applicable for the 10201 Web Page Design course.	
9-10.AP.12: Design algorithms using sequence, selection, iteration and recursion. (Grades 9-10)	Not applicable for the 10201 Web Page Design course.	
9-10.AP.13: Explain, represent, and understand natural phenomena using modeling and simulation (Grade 9-10).	Not applicable for the 10201 Web Page Design course.	
9-10.AP.14: Describe the concept of parallel processing as a strategy to solve large problems. (Grades 9-10)	Not applicable for the 10201 Web Page Design course.	
9-10.AP.15: Compare and evaluate software development processes used to solve problems (e.g. waterfall, agile). (Grades 9-10)	SUPPLEMENTAL LESSON 4 (Project management principles and SDLC stages)	
9-10.AP.16: Decompose a complex problem into simpler parts using predefined functions and parameters, classes, and methods. (Grades 9-10)	While functions, classes, etc are not applicable to HTML/CSS, CHAPTER 6, LESSON 4 does describe how CSS rules are applied to very general and very specific groups of objects. Similarly, CHAPTERS 22 and 23 describe increasingly complex selectors to help target CSS rules. CHAPTER 24 contains a good example of how dynamic menus can be built with layers of general and specific CSS rules.	

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
9-10.AP.17: Demonstrate the value of abstraction to manage problem complexity. (Grades 9-10)	CHAPTER 7, LESSON 3 (Targeting CSS rules by ID, class or group to manage complexity and duplication of rules and HTML elements) CHAPTERS 22 and 23 (Targeting CSS rules by relationships and pseudo-selectors to manage complexity on a page)	
9-12.AP.18: Evaluate and improve program quality using various debugging and testing methods and examine the difference between verification and validation. (Grades 9-12)	CHAPTER 3, LESSONS 1 and 2 (Problem solving tips) CHAPTER 4, LESSON 2 (Writing neat, clean code to improve readability and troubleshooting) CHAPTER 14, LESSON / ACTIVITY 3 (Peer review of team projects) CHAPTER 26, LESSON 3 (Troubleshooting steps for JavaScript and jQuery) SUPPLEMENTAL LESSON 9 (Automated validation tools to find HTML errors)	
9-10.AP.19: Evaluate programs written by others for readability and usability. (Grades 9-10)	CHAPTER 4, LESSON 2 (Writing neat, clean code to improve readability and troubleshooting) CHAPTER 14, LESSON / ACTIVITY 3 (Peer review of team projects)	
11-12.AP.01: Analyze the notion of intelligent behavior through programs that learn and adapt, play games, do image recognition, perform text analysis, and control the behavior of robots. (Grades 11-12)	Not applicable for the 10201 Web Page Design course.	
11-12.AP.02: Create collaborative software projects using version control systems, Integrated Development Environments (IDEs), and collaborative tools. (Grades 11-12)	Students will use the Komodo Edit IDE in CHAPTERS 17+ Students will collaborate on team projects in CHAPTERS 14 and 28.	

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
11-12.AP.03: Demonstrate an understanding of the software life cycle process (e.g. by participating on a software project team). (Grades 11-12)	CHAPTERS 14 and 28, ALL LESSONS (Team projects with full lifecycle development) SUPPLEMENTAL LESSON 4 (Project management principles and SDLC stages)	
11-12.AP.04: Modify an existing program to add additional functionality and discus the positive and negative implications (e.g., breaking other functionality). (Grades 11-12)	Nearly all Chapter Activities and in-lesson Work-with-Me exercises build on previous results to generate an increasingly complex web site. In the first semester (up to CHAPTER 12), students are working on the "Raptors" website. In the second semester (CHAPTERS 15 to 27), students work on the "Aquamaniacs" website.	
11-12.AP.05: Explain the value of heuristic algorithms to approximate solutions for intractable problems. (Grades 11-12)	Not applicable for the 10201 Web Page Design course.	
9-12.AP.06: Decompose a computational problem through data abstraction and modularity. (Grades 9-12)	While not applicable for the 10201 Web Page Design course in a traditional programming sense, CSS does offer the ability to modularize rules that target different and overlapping sets of general or more specific HTML elements. CHAPTER 6, LESSON 4 (Applying CSS rules with cascading, inheritance and specificity) CHAPTER 6, LESSON 5 (Using modular external CSS files to govern the styles of an entire web site)	
11-12.AP.07: Critically examine algorithms and design an original algorithm (e.g. adapt, remix, improve). (Grades 11-12)	While not applicable for the 10201 Web Page Design course in a traditional algorithms sense, we do introduce simple JavaScript and jQuery commands and in CHAPTERS 25 - 27. CHAPTER 27, LESSONS 2 and 3 introduce a sequential series of commands (algorithm) to perform animation work. In the CHAPTER 27 ACTIVITY, students are challenged to develop their own animation algorithm.	
11-12.AP.08: Evaluate efficiency, correctness, and clarity of algorithms. (Grades 11-12)	Not applicable for the 10201 Web Page Design course.	

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
11-12.AP.09: Compare and contrast simple data structures and their uses (e.g. arrays, lists, stacks, queues, maps, trees, graphs). (Grades 11-12)	Not applicable for the 10201 Web Page Design course.	
11-12.AP.10: Decompose a problem by creating functions and classes. (Grades 11-12)	Not applicable for the 10201 Web Page Design course.	
9-12.AP.11: Use variable scope and encapsulation to design programs with cohesive and decoupled components. (Grades 9-12)	Not applicable for the 10201 Web Page Design course.	
11-12.AP.12: Classify problems as tractable, intractable, or computationally unsolvable. (Grades 11-12)	Not applicable for the 10201 Web Page Design course.	
11-12.AP.13: Understand and explain the use of concurrency (e.g. separate processes into threads and divide data into parallel streams, have students self sort by height). (Grades 11-12)	Not applicable for the 10201 Web Page Design course.	

Performance Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
11-12.AP.14: Evaluate the qualities of a program such as correctness, usability, readability, efficiency, portability and scalability through a process such as a code review. (Grades 11-12)	CHAPTER 3, LESSONS 1 and 2 (Problem solving tips) CHAPTER 4, LESSON 2 (Writing neat, clean code to improve readability and troubleshooting) CHAPTER 14, LESSON / ACTIVITY 3 (Peer review of team projects) CHAPTER 26, LESSON 3 (Troubleshooting steps for JavaScript and jQuery) SUPPLEMENTAL LESSON 9 (Automated validation tools to find HTML errors)	

INDICATORS OF QUALITY RUBRIC:

Literacy Connections Across All Content Areas:

Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
1. Students will build knowledge and academic language through content rich, complex nonfiction texts.	Students will read technical lesson text and build appropriate vocabulary and concepts throughout the course. Where appropriate, they will read additional complex source material. For example: CHAPTER 13, LESSON 2 (Read WCAG 2.0 technical standards for accessibility) CHAPTER 16, LESSON 1 (Read and discuss a local AUP)	
2. Students will participate in Reading/Writing/Speaking that is grounded in evidence from the text, across the curriculum.	Reading: CHAPTER 13, LESSON 2 (Read WCAG 2.0 technical standards for accessibility) CHAPTER 16, LESSON 1 (Read and discuss a local AUP) Writing: CHAPTER 13, ACTIVITY (Writing storyboards, site maps and wire-frames) CHAPTER 14, LESSON / ACTIVITY 1 (Writing timelines, storyboards and site maps) SUPPLEMENTAL LESSON 4 (Create requirements documents, mock-ups and maintenance plans) Speaking: CHAPTER 16, LESSON 1 (Read and discuss a local AUP) CHAPTER 14, ALL ACTIVITIES (Class presentation of activity results)	
3. Students will use digital resources strategically to conduct research and create and present material in oral and written form.	Research: CHAPTER 14, LESSON / ACTIVITY 1 (Research data and content for selected website topic) CHAPTER 17, ACTIVITY 1 (Analyze external websites for effective HTML5 structures) SUPPLEMENTAL LESSON 3 (Using search engines for online research) Writing: CHAPTER 13, ACTIVITY (Writing storyboards, site maps and wire-frames) CHAPTER 14, LESSON / ACTIVITY 1 (Writing timelines, storyboards and site maps) SUPPLEMENTAL LESSON 4 (Create requirements documents, mock-ups and maintenance plans) Speaking: CHAPTER 16, LESSON 1 (Read and discuss a local AUP) CHAPTER 14, ALL ACTIVITIES (Class presentation of activity results)	

Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
4. Students will collaborate effectively for a variety of purposes while also building independent literacy skills.	CHAPTERS 14 and 28 (Team projects require collaboration across all phases of the development lifecycle)	

Equity:

Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
1. Materials are free from bias in their portrayal of ethnic groups, gender, age, disabilities, culture, religion, etc., and contain accommodations for multiple learning styles, students with exceptionalities, English Language Learners, and cultural differences. • Multicultural representation • Free from bias • Designed for use in planning and implementation of differentiated instruction addressing multiple learning styles and the needs of Talented and Gifted (TAG), English Language Learners (ELL) and Special Education	Our material contains no references to ethnic, religious, cultural or other special interest groups. Our material contains optional instructional videos as differentiated instruction to help introduce and re-enforce the lesson content for audio-visual learners and those needing extra help (see any lesson). Advanced students can move through our online system at their own pace and are encouraged to expand, personalize or select more challenging projects as desired. For example, the CHAPTERS 14 and 28 projects can be scaled to meet the capabilities of the students. Our material contains no viewpoints regarding issues of race, gender, religion, politics, etc.	

Standards	Justification	Rating
(SPED) students. • The material provides a balanced representation of points of view regarding issues such as race, gender, religion, environment, business, industry, political orientation, careers and career choices.		
2. The material offers texts representing a wide array of cultures and experiences, allowing students opportunities to learn about situations similar to and different from their own personal experiences.	This is a technical course that teaches computing skills. Widespread use of cultural references is avoided in order to avoid any appearance of bias or inappropriate interpretation. Students may explore cultures and experiences by selecting appropriate topics in the self-directed group projects.	

Accessibility:

Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
1. Accessible Education Materials (AEM): Print- and technology-based educational materials, including printed and electronic textbooks and related core materials that are designed or converted in a way that makes them usable across the widest range of student variability regardless of format (print, digital, graphical, audio, video).	Our online curriculum meets WCAG 2.0 (AA) and Section 508 standards for accessibility. This includes, but is not limited to: alt tags, keyboard navigation, closed-captioning of videos, etc. The courses contain a mixture of text, videos, graphics, etc to appeal to a wide range of students. Popular 3rd party tools have been tested and can be used to do things like converting text to audio or supporting web page highlighting.	

Student Focus:

Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
1. The material supports the sequential and cumulative development of foundational skills. Those skills are necessary for a student's independent comprehension of grade-level complex texts and mastery of tasks called for by the standards.	Our courses begin by assuming no prior knowledge of the specific subject. All relevant skills are taught from the ground up in a careful, step-by-step sequence. Later chapters and projects will re-enforce earlier concepts by frequent repetition. For example, styling by ID, class or group is introduced in CHAPTER 7, LESSON 3, and then used frequently in subsequent lessons and projects.	
2. The material provides many and varied opportunities for students to work with each standard within the grade level.	Specific standards are not published by Idaho for this course. The skills taught are re-enforced frequently after initial introduction as described above.	
3. The material reflects the progression of the strands and how they build within and across the grades in a logical way. This enables students to develop and demonstrate their independent capacity to read and write at the appropriate level of complexity and sophistication indicated by the standards.	Specific standards are not published by Idaho for this course. Student skills and projects begin simply and gradually increase in complexity as new topics are covered. Students demonstrate their independent mastery of skills in regular chapter activities and two self-selected projects (CHAPTERS 14 and 28).	
4. The material engages the reader, i.e. does it correspond with age appropriate interests?	Our material uses age-appropriate examples of interest. The first semester project ("Raptors") focuses on birds of prey, while the second semester project ("Aquamaniacs") illustrates a variety of sea life. CHAPTER 26, LESSONS 2 - 4 use a pizza ordering interface as a running example.	

Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
5. The material cross-refers and integrates with other subjects in related areas of the curriculum.	The content chosen for specific web sites will illustrate chosen areas from other subjects. The "Raptors" and "Aquamaniacs" web sites in the first and second semesters illustrate life science or biology. Students are encouraged to explore other areas of interest in two self-selected projects in CHAPTERS 14 and 28.	
6. The material includes strategies and textual content that are grade appropriate.	Our material includes grade-appropriate text. Teaching relies on frequent assessment (auto-graded quizzes and tests and frequent hands-on programming projects (Work-with-Me lesson exercises and Chapter activities). (See CHAPTER 3, LESSON 2 or any other Lesson Text for example).	
7. The material has a balance of text types and lengths that encourage close, in-depth reading and rereading, analysis, comparison, and synthesis of texts.	Each lesson text includes, where appropriate, short and long paragraphs, bulleted lists, tables, highlighted codes boxes, and relevant imagery. See CHAPTER 3, LESSON 3 for example.	
8. The material includes sufficient supplementary activities or assignments that are appropriately integrated into the text.	Most lessons include "Work with Me" exercises that students will do to demonstrate the lesson concepts. See CHAPTER 3, LESSON 3 for example. All chapters also have hands-on projects under the "Activity" heading within the course interface. See CHAPTER 3 ACTIVITY ("Silent Owl") for example.	
9. The material has activities and assignments that develop problem-solving skills and foster synthesis and inquiry at both an individual and group level.	CHAPTER 3, LESSONS 1 and 2 (Problem solving tips) CHAPTER 4, LESSON 2 (Writing neat, clean code to improve readability and troubleshooting) CHAPTER 14, LESSON / ACTIVITY 3 (Peer review of team projects) CHAPTER 26, LESSON 3 (Troubleshooting steps for JavaScript and jQuery) SUPPLEMENTAL LESSON 9 (Automated validation tools to find HTML errors)	

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10. The material has activities and assignments that reflect varied learning styles of students.	Material includes both instructional videos and lesson text with many hands-on project opportunities to appeal to a wide range of learning styles. See CHAPTER 8, LESSON 2 and many other lessons for examples.	
11. The material includes appropriate instructional strategies.	Each lesson comes with a Teacher's Guide that describes the main objectives and suggests classroom discussion questions. A course syllabus and pacing guide is available through the Professional Development link in the Teacher's Menu.	

Pedagogical Approach:

Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
1. The material offers strategies for teachers to meet the needs of a range of learners, including advanced students and those requiring remediation.	Our online learning management system allows advanced students to progress at their own pace. They are also encouraged to expand or customize hands-on projects beyond the initial requirements. For example, self-selected projects in CHAPTERS 14 and 28 can be expanded as desired. Students in need of remediation can be identified by observing the results of the automated quizzes present after every lesson.	
2. The material provides suggestions for scaffolding that support the comprehension of grade-level text without replacing students' opportunities for full and regular encounters with grade-level complex texts. Removing the scaffolding over the course	Lessons and activities are scaffolded by providing high levels of initial detail and guidance for tasks that are first introduced (e.g. CHAPTER 2, LESSON 4 - Work-with-Me exercise carefully describes file-editing keystrokes). Level of detail is gradually reduced until students can perform the task on their own with minimal guidance (e.g. CHAPTER 7, LESSON 2 "Work-with-Me" instructions to edit CSS rules). Additionally, we provide "starter" code for many hands-on exercises (e.g. CHAPTER 23 ACTIVITY includes "lobster.html" page for download) so students can focus just on applying a new skill and not creating unrelated parts of the entire page.	

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of the materials is encouraged.		
3. The material provides opportunities for supporting English language learners to regularly and actively participate with grade-level text.	ELL students are expected to participate on grade level with the relevant course material. Our online LMS can be switched into other languages (e.g. Spanish) to provide native system prompts and navigational menus (though the course material remains English). Instructional videos are closed-captioned, so ELL students can choose to read and hear the English transcript at the same time. There is a link to the Microsoft language translator at the end of the course to translate technical terms into native languages.	
4. The material gives clear and concise instruction to teachers and students. It is easy to navigate and understand.	All courses follow the same standard Chapter and Lesson layout, with links clearly labeled and easy to find. Course material provides step-by-step guidance in the form of numbered or bulleted steps in the hands-on activities (e.g. CHAPTER 3, LESSON 2 Work-with-Me and CHAPTER 3 ACTIVITY).	
5. The material assesses students at a variety of knowledge levels (e.g., recall, inferencing/analyzing, reasoning, problem solving) centered on grade-level texts that are clearly aligned and measureable against the expectations of the ICS.	Built-in assessments include automated quizzes for every lesson and automated tests for every chapter. Hands-on projects (Work-with-me and Chapter Activities) provide additional opportunity to solve problems and demonstrate mastery of skills.	
6. The material offers ongoing, easily implemented, and varied assessments. • Assessments should clearly denote which standards are being emphasized. They should also include aligned rubrics and scoring	Built-in assessments include automated quizzes for every lesson and automated tests for every chapter. Upon completion, student results are automatically scored and sent to the electronic grade-book. Hands-on projects come with scoring rubrics to assist teachers with grading of those activities. A Comprehensive Reporting feature is available from the Teacher's Menu to provide meta-data about student results, help identify problem areas, etc. Idaho has not published specific standards for this course.	

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guidelines that provide sufficient guidance to teachers for interpreting student performance and suggestions for follow-up.		

Presentation and Design:

Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
1. The material has an aesthetically appealing appearance (attractive, inviting).	Our online delivery system uses a professionally designed color scheme and layout. The lesson text is full-color with appropriate imagery and highlighting of key points (e.g. CHAPTER 21, LESSON 2).	
2. Layout is consistent, clear, and understandable. • The material has headings and sub-headings that make it easy to navigate through the book. • Chapters are logically arranged. • Text provides a useful table of contents, glossary, and index. • Text contains references, bibliography, and resources.	The course uses a consistent pattern for navigation and common heading styles throughout the lessons. Hands-on exercises are clearly identified in "Work-with-me" sections or Chapter Activities. Chapters are arranged in sequence to teach all required skills from the ground up. The main course page displays the table of contents (chapter list). We provide a full-text keyword search feature as a modern replacement for a printed textbook index. References to external documentation are given where appropriate. For example, CHAPTER 13, LESSON 2 links to WCAG 2.0 accessibility standards and CHAPTER 16, LESSON 3 links to HTML 5 standards.	

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3. The material uses a language/reading level suitable for the intended readers.	Our material uses language and vocabulary appropriate for the high school age group.	
4. The material has a reasonable and appropriate balance between text and illustration. The material has grade-appropriate font size.	Our material uses a mixture of lesson text and appropriate images (e.g. CHAPTER 7, LESSON 1 pictures of font styles). Font sizes can be adjusted and personalized using standard web browser accessibility features.	
5. The illustrations clearly cross-reference the text, are directly relevant to the content (not simply decorative), and promote thinking, discussion, and problem solving.	Most illustrations are meant to provide specific support for the text (e.g. CHAPTER 7, LESSON 1 font style examples). Some illustrations are provided to aid overall visualization, encourage student interest and break up passages of text (e.g. CHAPTER 16, LESSON 3 HTML5 to the rescue and HTML5 building blocks)	
6. Non-text content (performance clips, images, maps, globes, graphs, pictures, charts, databases, and models) are accurate and well integrated into the text.	Built-in lesson images, associated instructional videos, starter files and other content are accurate and relevant (e.g. CHAPTER 22, LESSON 1 material and CHAPTER 22, LESSON 2 Work-with-Me exercise instructions and Lesson Starter files download).	

Technology:

Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.	Rating (Reviewer Only):
1. The material includes or references technology that	The course provides a comprehensive set of hands-on tasks in the form of Lesson "Work-with-Me" sections and guided Chapter Activities.	

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provides teachers with additional tasks for students.		
2. The material includes guidance for the mindful use of embedded technology to support and enhance student learning.	The course is delivered on a learning management system that delivers multi-media content, automatically graded quizzes and tests and comprehensive reporting.	
3. The material has "platform neutral" technology (i.e., will run on Windows or other platforms) and availability for networking.	The course material can be delivered to any HTML5-compliant web browser on any platform (Windows, Mac, mobile). Hands-on projects can be completed where-ever HTML files can be successfully edited, stored and viewed in a browser (e.g. Windows, Mac OS).	
4. The material has a user-friendly and interactive interface allowing the user to control (shift among activities).	The user interface allows users to freely navigate among all of the course elements. Teachers can optionally show or hide individual lesson links or entire chapters.	

For Questions Contact

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