

18604 West Creek Drive . Tinley Park, IL 60477-6243

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Goodheart-Willcox Publisher

Correlation of Introduction to Computer Science ©2021 to South Carolina Department of Education Course Code: 5061 Discovering Computer Science (includes Part 1-Grade 7 and Part 2-Grade 8) (Grades 9–12)



	Claudawia	Convolation Tout Bosse		
A	Standards	Correlating Text Pages		
	Safety			
1.	Review school safety policies and procedures.	458		
2.	Review classroom safety rules and procedures.	458		
3.	Review safety procedures for using equipment in the classroom.	458		
4.	Identify major causes of work/related accidents in office environments.	458-464		
5.	Demonstrate safety skills in an office/work environment.	458-464		
B. Student Organizations				
1.	Identify the purpose and goals of a Career and Technology Student Organization (CTSO).	25		
2.	Explain how CTSOs are integral parts of specific clusters, majors, and/or courses.	25		
3.	Explain the benefits and responsibilities of being a member of a CTSO.	25		
4.	List leadership opportunities that are available to students through participation in CTSO conferences, competitions, community service, philanthropy, and other activities.	25		
5.	Explain how participation in CTSOs can promote lifelong benefits in other professional and civic organizations.	25		
C. Technology Knowledge				
1.	Demonstrate proficiency and skills associated with the use of technologies that are common to a specific occupation.	18-19		
2.	Identify proper netiquette when using e-mail, social media, and other technologies for communication purposes.	458-464		
3.	Identify potential abuse and unethical uses of laptops, tablets, computers, and/or networks.	458-464		
4.	Explain the consequences of social, illegal, and unethical uses of technology (e.g., piracy; illegal downloading; licensing infringement; inappropriate uses of software, hardware, and mobile devices in the work environment).	458-464		
5.	Discuss legal issues and the terms of use related to copyright laws, fair use laws, and ethics pertaining to downloading of images, photographs, documents, video, sounds, music, trademarks, and other elements for personal use.	458-464		
6.	Describe ethical and legal practices of safeguarding the confidentiality of business-related information.	458-464		



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Standards	Correlating Text Pages
7. Describe possible threats to a laptop, tak	
network and methods of avoiding attack	1 //65-//68
8. Evaluate various solutions to common ha	
problems.	468-469, 4709473
D. Personal Qualities And Employability Ski	ills
Demonstrate punctuality.	18-19
2. Demonstrate self-representation.	18-19
3. Demonstrate work ethic.	18-19
4. Demonstrate respect.	18-19
5. Demonstrate time management.	18-19
6. Demonstrate integrity.	18-19
7. Demonstrate leadership.	18-19
8. Demonstrate teamwork and collaboration	on. 18-19
9. Demonstrate conflict resolution.	18-19
10. Demonstrate perseverance.	18-19
11. Demonstrate commitment.	18-19
12. Demonstrate a healthy view of competit	ion. 18-19
13. Demonstrate a global perspective.	18-19
14. Demonstrate health and fitness.	18-19
15. Demonstrate self-direction.	18-19
16. Demonstrate lifelong learning	18-19, 447
E. PROFESSIONAL KNOWLEDGE	
1. Demonstrate effective speaking and lister	ning skills. 18-19
2. Demonstrate effective reading and writing	g skills. 18-19
3. Demonstrate mathematical reasoning.	18-19
4. Demonstrate job-specific mathematics sk	ills. 18-19, 446
5. Demonstrate critical-thinking and proble	m-solving skills. 18-19, 446
6. Demonstrate creativity and resourcefulne	ess. 18-19, 439-440, 446
7. Demonstrate an understanding of busines	ss ethics. 18-19, 458-464
8. Demonstrate confidentiality.	18-19
9. Demonstrate an understanding of workpla	ace structures,
organizations, systems, and climates.	18-19
10. Demonstrate diversity awareness.	18-19
11. Demonstrate job acquisition and advance	
12. Demonstrate task management skills.	18-19
13. Demonstrate customer-service skills.	18-19
F. Computing Systems	10 10
Define key computing terms (e.g., hardw	vare, software, data, 3, 27, 53, 73, 99, 133, 165, 203, 239, 269,
etc.).	303, 325, 361, 395, 437, 457
2. Identify and define the key functional co	13 // 53 /3 99 133 165 /113 /39 /69
devices, output devices, processor, oper applications, memory, storage, etc.).	rating system, software 303, 325, 361, 395, 437, 457



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	Standards	Correlating Text Pages			
3.	Define the terms and units that are used to describe major	2 27 52 72 00 122 165 202 220 260			
	hardware components (RAM, ROM, Peta-, Tera-, Giga-, Mega-	3, 27, 53, 73, 99, 133, 165, 203, 239, 269, 303, 325, 361, 395, 437, 457			
	Kilo-, Hz, Bit, Byte, Binary, etc.).				
4.	Describe how software and hardware interact.	4, 5, 7-9			
5.	,				
	(e.g., software compatibility, file size, compresses/uncompressed	414			
C	files.)	Throughout The Course)			
	Problem Solving And Computational Thinking (To Be Implemented Describe how computer programs and apps can be used to solve	I inroughout the Course)			
1.	various problems (e.g., desktop, mobile, enterprise).	4, 5, 7-9			
2.	Define algorithm (a set of clearly defined, logical steps to solve a				
2.	problem).	9			
3.					
	applications.	8-10, 65			
4.	Create, evaluate, and adjust algorithms to solve a variety of	8-10, 65			
	problems.	8-10, 65			
5.	Use an iterative problem-solving process to design and refine				
	solutions to a variety of problems.				
	a. Define the problem including a variety of considerations				
	(e.g., users, environment, demographics, societal trends,	10, 12, 439-440			
	etc.) b. Design a solution.				
	c. Prepare, test, and refine the solution.				
	d. Reflect on results.				
H. Fundamentals Of Programming					
1.	Express the design of a program using representations such as	FF F0			
	flowcharts and pseudocode.	55-59			
2.	Analyze and explain how a particular program functions.	55-59			
3.	Solve problems of increasing complexity using visual block-based	252 252			
	programming individually and collaboratively.	352-353			
4.	Write code that uses variables, events, functions, operators (i.e.				
	arithmetic, relational, logical), conditional control structures	365-366			
	(e.g., if, if-else) and repetition/iteration control structures (e.g.,	303-300			
	while, for).				
5.	Differentiate between text and numerical data.	148, 150			
6.	Edit, compile/run, test, and debug a program.	126, 365-366			
I. Fu	indamentals Of Web Design And Development				
1.	Evaluate the results of Internet searches and the reliability of	460, 468, 470, 473			
	information found on Web	,, -,			
2.	Describe how Web sites are used to communicate and exchange	460, 468, 470, 473			
2	Plan a web page considering subject, devices, audience, layout				
3.	Plan a web page considering subject, devices, audience, layout, color, links and graphics.	460, 468, 470, 473			
<u></u>	color, illiks and graphics.				



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Standards	Correlating Text Pages			
4. Create a web page that contains a variety of HTM (e.g., hyperlinks, ordered	L elements 460, 468, 470, 473			
J. Ethical, Legal & Social Issues Of Computing				
 Explore the consequences resulting from issues invaround security, privacy, copyright, fair use, intelle social media and licensing. 				
2. Explain the importance of Acceptable Use Policies	. 458			
3. Explain the importance of data security and physic	cal security. 465-469, 470-473			
4. Identify computing threats (e.g., spyware, adware, viruses, ransomware, phishing, hacking, software patheft, etc.) and their potential impacts on society.				
K. Computing Careers				
Research careers in computing along with their ed training requirements, industry certifications and	$1 \Delta \Delta 3 - \Delta \Delta 7$			
2. Describe how computing enhances other career for	ields. 443-447			
3. Describe the importance of access and equity in c	omputing. 458-464			