Virginia CTE

Advanced Computer Information Systems (6613)

Using Advanced Word Processing Functions ACIS.1	**1** Compare advanced features of a word processing program to determine the best tools to use for a given task. ACIS.1.1
	2 Create documents using advanced merge functions. ACIS.1.2
	3 Produce documents incorporating tables, templates, autocorrect, styles, graphics, and other advanced features. ACIS.1.3
	4 Create a professional document demonstrating established principles of design in desktop publishing. ACIS.1.4
	5 Import text and graphics from other sources. ACIS.1.5
	6 Integrate software applications into a word processing document. ACIS.1.6
	7 Create an online form with a word processing program. ACIS.1.7
Using Advanced Spreadsheet Functions ACIS.2	**1** Compare features and functions of spreadsheet programs to determine the best software for an individual's or organization's needs. ACIS.2.1
	2 Use advanced formulas and functions. ACIS.2.2
	3 Use advanced tools. ACIS.2.3
	4 Create complex graphs. ACIS.2.4
	5 Analyze data. ACIS.2.5
	6 Manipulate spreadsheet data. ACIS.2.6
	7 Manipulate data to and from a spreadsheet. ACIS.2.7
	8 Create templates. ACIS.2.8
	9 Organize a large workbook with multiple worksheets. ACIS.2.9
	10 Apply linear programming to optimize spreadsheet results. ACIS.2.10

Using Advanced Database Functions ACIS.3	1 **Evaluate the features of database programs to determine the best software for an individual's or organization's needs.** ACIS.3.1
	2 **Create a database file with advanced features.** ACIS.3.2
	3 **Generate customized reports and forms, using advanced formatting features and graphics.** ACIS.3.3
	4 **Utilize advanced queries to access information.** ACIS.3.4
	5 **Manipulate data to and from a database.** ACIS.3.5
Enhancing Multimedia Presentations ACIS.4	1 **Create a multimedia presentation with advanced features.** ACIS.4.1
	2 **Enhance a multimedia presentation, using advanced features.** ACIS.4.2
	3 **Utilize templates and master slides in the design of presentations.** ACIS.4.3
	4 **Enhance a multimedia presentation layout, according to the principles of affective design.** ACIS.4.4
	5 **Enhance a multimedia presentation with advanced features.** ACIS.4.5
	6 **Integrate software applications into a multimedia presentation.** ACIS.4.6
	7 **Create handouts and other visuals.** ACIS.4.7
	8 **Deliver a multimedia presentation, according to the principles of effective communication.** ACIS.4.8
	9 **Edit multimedia presentations.** ACIS.4.9
	10 **Critique the clarity and effectiveness of advanced multimedia presentations.** ACIS.4.10
Producing Desktop Published Documents for Print and Electronic Distribution ACIS.5	1 **Create documents and graphics for use in advanced desktop publishing products.** ACIS.5.1
	2 **Determine appropriate desktop publishing products based upon the purpose of the publication, intended audience, output format, and time and cost constraints.** ACIS.5.2
	3 **Apply the principles of design, layout, and typography.** ACIS.5.3
	4 **Design a layout for ease of readability and attractiveness.** ACIS.5.4
	5 **Enhance the appearance of a document using desktop features.** ACIS.5.5
	6 **(Optional) Create templates or master pages.** ACIS.5.6

	7 Create multipage and multicolumn documents in a format appropriate for electronic distribution. ACIS.5.7
	8 Demonstrate the use of keyboard shortcuts. ACIS.5.8
	9 Incorporate original/imported text, graphics, tables, charts, and audio/visual elements from a variety of sources. ACIS.5.9
	10 Convert a document to an alternate format. ACIS.5.10
Designing and Producing Web Pages ACIS.6	1 (Optional) Evaluate the methods of web page creation. ACIS.6.1
	2 Manipulate information for a website. ACIS.6.2
	3 Compare the features and functions associated with the Internet, intranets, and extranets. ACIS.6.3
	4 Create a website, applying design features. ACIS.6.4
	5 (Optional) Create hypertext links to other pages or sites. ACIS.6.5
	6 (Optional) Test a website for functionality. ACIS.6.6
	7 (Optional) Critique a website, according to accepted web design principles. ACIS.6.7
	8 (Optional) Develop a plan for maintaining a website. ACIS.6.8
	9 (Optional) Describe methods of publicizing and promoting a new website. ACIS.6.9
Maintaining, Managing, and Troubleshooting Systems ACIS.7	1 Evaluate workstations, equipment, software, and supplies for design, layout, and purchase. ACIS.7.1
	2 Maintain workstations, equipment, software, and supplies. ACIS.7.2
	3 Analyze software problems to obtain assistance through electronic documentation. ACIS.7.3
	4 (Optional) Troubleshoot hardware problems. ACIS.7.4
	5 (Optional) Explore tools to manage the operating system. ACIS.7.5
	6 (Optional) Explain how to install software and customize defaults. ACIS.7.6
	7 (Optional) Back up programs and data files. ACIS.7.7
	8 (Optional) Investigate advanced desktop configuration techniques. ACIS.7.8

	9 (Optional) Scan storage devices and equipment for malicious software. ACIS.7.9
	10 Comply with safety and ergonomic precautions associated with computer use. ACIS.7.10
	11 Compare operating systems. ACIS.7.11
	12 Investigate security issues related to Internet technology. ACIS.7.12
Executing Networking Activities ACIS.8	1 Identify network types and topologies. ACIS.8.1
	2 (Optional) Identify components of a local area network. ACIS.8.2
	3 Identify file structures on networks. ACIS.8.3
	4 (Optional) Explain the steps to download software/files to a specific workstation. ACIS.8.4
	5 (Optional) Identify basic network protocols. ACIS.8.5
	6 (Optional) Explain the importance of network security. ACIS.8.6
	7 (Optional) Troubleshoot network problems. ACIS.8.7
Implementing Programming Activities ACIS.9	1 (Optional) Debug a program. ACIS.9.1
	2 (Optional) Code an application program using functions. ACIS.9.2
	3 (Optional) Code an application program using embedded data. ACIS.9.3
	4 (Optional) Improve the appearance of printed reports. ACIS.9.4
	5 (Optional) Design interactive programs. ACIS.9.5
	6 (Optional) Write programs to summarize data. ACIS.9.6
	7 (Optional) Write programs to subtotal and group print. ACIS.9.7
	8 (Optional) Write modular programs. ACIS.9.8
	9 (Optional) Write programs using controlled loops. ACIS.9.9
	10 (Optional) Implement tables. ACIS.9.10
	11 (Optional) Code an application program using a sort routine. ACIS.9.11
	12 (Optional) Code an application program to display graphics. ACIS.9.12
	13 (Optional) Explore the characteristics and uses of artificial intelligence and machine learning. ACIS.9.13

Exploring Legal and Ethical Issues ACIS.10	1 **Comply with copyright and patent laws.** ACIS.10.1
	2 **Analyze situations where scanned/digitized audiovisual elements, documents, and electronic graphs may be used legally but are ethically questionable.** ACIS.10.2
	3 **Comply with policies regarding acceptable use of technology.** ACIS.10.3
	4 **Investigate computer crime and privacy issues related to Internet technology.** ACIS.10.4
	5 **Apply concepts of security, integrity, courtesy, and confidentiality related to information and communication systems and intellectual property.** ACIS.10.5
	6 **Investigate the design of websites for accessibility and accommodation of special needs (i.e., Americans with Disabilities Act, multilingual).** ACIS.10.6
Preparing for Industry Certification ACIS.11	1 **Describe the processes and requirements for obtaining industry certifications related to the Computer Information Systems, Advanced, course.** ACIS.11.1
	2 **Identify testing skills/strategies for a certification examination.** ACIS.11.2
	3 **Demonstrate the ability to complete selected practice examinations (e.g., practice questions similar to those on certification exams).** ACIS.11.3
	4 **(Optional) Complete an industry certification examination representative of skills learned in this course.** ACIS.11.4
Developing Employability Skills ACIS.12	1 **Explore domestic and global job opportunities.** ACIS.12.1
	2 **Update a résumé.** ACIS.12.2
	3 **Update representative work samples to a professional portfolio, including a résumé format suitable for online posting.** ACIS.12.3
	4 **Use electronic sources to research a company in preparation for a job interview.** ACIS.12.4
	5 **Participate in a mock interview.** ACIS.12.5
	6 **Compose an interview follow-up communication.** ACIS.12.6
	7 **Identify criteria for evaluating self-performance.** ACIS.12.7
	8 **Prepare a letter of resignation.** ACIS.12.8
	9 **Explore career and college options for lifelong learning.** ACIS.12.9
	10 **Investigate new and emerging technological trends in the workplace.** ACIS.12.10

11 **Identify potential employment barriers for nontraditional groups and ways to overcome the barriers.** ACIS.12.11