

# 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

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**7 Create multipage and multicolumn documents in a format appropriate for electronic distribution.** ACIS.5.7

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**8 Demonstrate the use of keyboard shortcuts.** ACIS.5.8

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**9 Incorporate original/imported text, graphics, tables, charts, and audio/visual elements from a variety of sources.** ACIS.5.9

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**10 Convert a document to an alternate format.** ACIS.5.10

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**Designing and  
Producing Web  
Pages** ACIS.6

**1 (Optional) Evaluate the methods of web page creation.** ACIS.6.1

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**2 Manipulate information for a website.** ACIS.6.2

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**3 Compare the features and functions associated with the Internet, intranets, and extranets.** ACIS.6.3

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**4 Create a website, applying design features.** ACIS.6.4

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**5 (Optional) Create hypertext links to other pages or sites.** ACIS.6.5

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**6 (Optional) Test a website for functionality.** ACIS.6.6

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**7 (Optional) Critique a website, according to accepted web design principles.** ACIS.6.7

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**8 (Optional) Develop a plan for maintaining a website.** ACIS.6.8

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**9 (Optional) Describe methods of publicizing and promoting a new website.** ACIS.6.9

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**Maintaining, Managing,  
and Troubleshooting  
Systems** ACIS.7

**1 Evaluate workstations, equipment, software, and supplies for design, layout, and purchase.** ACIS.7.1

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**2 Maintain workstations, equipment, software, and supplies.** ACIS.7.2

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**3 Analyze software problems to obtain assistance through electronic documentation.** ACIS.7.3

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**4 (Optional) Troubleshoot hardware problems.** ACIS.7.4

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**5 (Optional) Explore tools to manage the operating system.** ACIS.7.5

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**6 (Optional) Explain how to install software and customize defaults.** ACIS.7.6

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**7 (Optional) Back up programs and data files.** ACIS.7.7

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**8 (Optional) Investigate advanced desktop configuration techniques.** ACIS.7.8

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**9 (Optional) Scan storage devices and equipment for malicious software.** ACIS.7.9

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**10 Comply with safety and ergonomic precautions associated with computer use.** ACIS.7.10

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**11 Compare operating systems.** ACIS.7.11

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**12 Investigate security issues related to Internet technology.** ACIS.7.12

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## Executing Networking Activities ACIS.8

**1 Identify network types and topologies.** ACIS.8.1

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**2 (Optional) Identify components of a local area network.** ACIS.8.2

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**3 Identify file structures on networks.** ACIS.8.3

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**4 (Optional) Explain the steps to download software/files to a specific workstation.** ACIS.8.4

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**5 (Optional) Identify basic network protocols.** ACIS.8.5

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**6 (Optional) Explain the importance of network security.** ACIS.8.6

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**7 (Optional) Troubleshoot network problems.** ACIS.8.7

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## Implementing Programming Activities ACIS.9

**1 (Optional) Debug a program.** ACIS.9.1

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**2 (Optional) Code an application program using functions.** ACIS.9.2

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**3 (Optional) Code an application program using embedded data.** ACIS.9.3

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**4 (Optional) Improve the appearance of printed reports.** ACIS.9.4

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**5 (Optional) Design interactive programs.** ACIS.9.5

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**6 (Optional) Write programs to summarize data.** ACIS.9.6

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**7 (Optional) Write programs to subtotal and group print.** ACIS.9.7

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**8 (Optional) Write modular programs.** ACIS.9.8

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**9 (Optional) Write programs using controlled loops.** ACIS.9.9

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**10 (Optional) Implement tables.** ACIS.9.10

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**11 (Optional) Code an application program using a sort routine.** ACIS.9.11

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**12 (Optional) Code an application program to display graphics.** ACIS.9.12

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**13 (Optional) Explore the characteristics and uses of artificial intelligence and machine learning.** ACIS.9.13

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## 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

- 2 Update a résumé. ACIS.12.2
- 1 Explore domestic and global job opportunities. ACIS.12.1
- 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

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**11 Identify potential employment barriers for nontraditional groups and ways to overcome the barriers.** [ACIS.12.11](#)