

Introduction to Computers and IT Correlation to: *Indiana – Computer Applications Course*

Instructional Content Areas

IT Introduction Unit
Computer Research
Multimedia Presentations
Telecommunications and Ethics
IT In Our Lives
Information Management and Evaluation
Desktop Publishing
IT History
Word Processing
Basic Computer Functions
Computer Graphics
IT Careers
Spreadsheets
Troubleshooting and Maintenance
Databases
Web Publishing



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Overview

This document demonstrates the correlation between the ITcenter21: Introduction to Computers and IT curriculum supplied by Applied Educational Systems and the *Business and Marketing: Computer Applications* published by the Indiana Department of Education. The ITcenter21 (IT21) units are listed across the top row. The checkmarks in the second column indicate that the standard is covered as part of the IT21 course. The X's marked in the remaining columns show where the standard is covered in the IT21 curriculum.

Source for standards listed on the following pages:

<http://doe.state.in.us/asap/standards/business/bte/computerapps.html>

Business and Marketing: Computer Applications	ITcenter21 Course	IT Introduction Unit	Computer Research	Multimedia Presentations	Telecommun. & Ethics	IT In Our Lives	Info. Mgmt & Evaluation	Desktop Publishing	IT History	Word processing	Basic Comp. Func.	Computer Graphics	IT Careers	Spreadsheets	Troubleshooting	Databases	Web Publishing
COMPUTER CONCEPTS																	
1.1 Understands the concepts and principles fundamental to computer technology.																	
1.1.1 Identify and explain the functions of the hardware components of a basic microcomputer system	✓										X						
1.1.2 Distinguish between system and applications software	✓										X						
1.1.3 Identify the uses and describe the benefits of virus detection and other utility software	✓													X			
1.1.4 Distinguish between primary memory and secondary storage	✓										X						
1.1.5 Identify alternative ways to input and output information	✓										X						
1.1.6 Identify storage capacities of floppy disks and hard disks, ZIP drives, and other storage media																	
1.1.7 Differentiate among microprocessors																	
1.1.8 Understand copyright, ethics, and pirating as related to computer technology	✓			X													
1.1.9 Perform basic trouble-shooting procedures.	✓													X			
DATABASE																	
2.1 Understand the principles and procedures of database/table design and creation.																	
2.1.1 Define/apply basic terminology associated with database design/creation	✓															X	
2.1.2 Plan/create/modify a database table structure using design view	✓															X	
2.1.3 Input/edit data in a table	✓															X	
2.1.4 Print a table	✓														X		

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2.1.5 Create relationships between/among tables	✓															X	
2.1.6 Define a primary key and understand its affects/function	✓															X	
2.1.7 Locate/replace data using search and replace function																	
2.1.8 Ensure data continuity/integrity using validation rules, input masks, and lookup fields	✓															X	
2.1.9 Utilize on-line help features and other reference materials	✓															X	
2.2 Use sorting and querying techniques to retrieve necessary data.																	
2.2.1 Define/apply basic terminology associated with sorting and querying	✓															X	
2.2.2 Create filters/queries based upon multiple criteria and print the results	✓															X	
2.2.3 Sort/query a relational database	✓															X	
2.2.4 Create action queries																	
2.3 Create/design a data entry form.																	
2.3.1 Insert, delete, and rearrange controls																	
2.3.2 Modify form, control, and section properties in design view																	
2.3.3 Use a calculated field and combo box																	
2.3.4 Incorporate a sub form																	
2.3.5 Change tab order of controls																	
2.3.6 Insert graphics/clip art from the Internet and other sources to enhance the appearance of the form																	

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2.3.7 Create a switchboard																	
2.4 Create/design a report.																	
2.4.1 Insert, delete, and rearrange controls																	
2.4.2 Modify report, control, and section properties in design view																	
2.4.3 Insert calculated fields and summary functions (SUM, MAX, MIN, AVG, COUNT)	✓															X	
2.4.4 Group/sort records	✓															X	
2.4.5 Design/create mailing labels	✓															X	
2.4.6 Insert graphics/clip art from the Internet and other sources to enhance the appearance of the report																	
2.4.7 Create a sub report																	
2.5 Apply specialized features/tools.																	
2.5.1 Merge database file with word processing document																	
2.5.2 Analyze database information in a spreadsheet document																	
2.5.3 Import a spreadsheet document into a database file																	
2.5.4 Utilize database utilities (repair/compact and convert)																	
2.5.5 Provide for database security using encryption/decryption and passwords																	
2.5.6 Create/run macros and modules																	

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DESKTOP PUBLISHING																	
3.1 Utilize desktop publishing skills to design, format, and print a publication.																	
3.1.1 Define/apply basic terminology associated with desktop publishing	✓							X									
3.1.2 Select/use hardware and software needed for desktop publishing	✓							X									
3.1.3 Distinguish among various publications produced in desktop publishing and identify their uses	✓							X									
3.1.4 Demonstrate competency using the Windows environment	✓							X									
3.1.5 Utilize on-line Help features and other reference sources	✓							X									
3.1.6 Create and format a publication attractively	✓							X									
3.1.7 Identify and use components of the desktop publishing window	✓							X									
3.1.8 Use appropriate tools to construct text blocks and drawings and modify graphics	✓							X									
3.1.9 Insert pages, add columns, edit, save, and print publication	✓							X									
3.1.10 Identify/use various print options	✓							X									
3.2 Apply design and layout principles to publications.																	
3.2.1 Apply visual principles of design	✓			X				X				X					
3.2.2 Apply rules of typography to publications	✓							X									
3.2.3 Proofread publications accurately	✓			X				X		X		X					X
3.2.4 Add/position prepared graphics	✓			X				X		X		X					X

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3.2.5 Apply color to text and drawings	✓							X									
3.2.6 Recognize time/cost constraints involved with publications	✓							X									
3.3 Incorporate text and graphics from various sources.																	
3.3.1 Utilize external sources such as digital scanners, digital cameras, Internet, clip art, drawing software, photo editing software, spreadsheet software, database software, and word processing software	✓			X				X		X		X		X			X
3.3.2 Identify file formats/extensions and apply file compression/decompression software	✓											X					
3.3.3 Modify/manipulate and link imported text, charts, and graphics	✓			X				X		X		X		X			X
3.3.4 Apply copyright laws related to desktop publishing	✓		X		X												
INTERNET																	
4.1 Utilize Internet services.																	
4.1.1 Access business and technical information using the Internet	✓		X			X	X		X				X				X
4.1.2 Select search engine(s) to use	✓		X			X	X		X				X				
4.1.3 Select appropriate search procedures and approaches	✓		X			X	X		X	X			X				
4.1.4 Locate information using search engine(s) and Boolean logic	✓		X			X			X				X				
4.1.5 Navigate Web sites using software functions (e.g., Forward, Back, Go To, Bookmarks)	✓		X			X	X	X	X	X			X				X
4.1.6 Evaluate Internet Resources (e.g., accuracy of information)	✓		X			X	X		X				X				
4.1.7 Access library catalogs on the Internet																	
4.1.8 Access commercial, government, and education resources	✓		X			X	X		X	X			X				

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4.1.9 Bookmark Web addresses (URLs)	✓		X														
4.1.10 Download files from FTP archives																	
4.1.11 Communicate via e-mail using the Internet	✓									X							
4.1.12 Understand mailing lists, newsgroups, and audio/video conferencing	✓				X												
4.1.13 Retrieve online tools																	
4.1.14 Explore the multimedia capabilities of the World Wide Web	✓		X														X
<p>PRESENTATIONS</p>																	
<p>5.1 Create, format, and print a presentation.</p>																	
5.1.1 Define/apply basic presentation terminology and design principles	✓			X		X											
5.1.2 Navigate among the different views	✓			X		X											
5.1.3 Insert, delete, copy and rearrange slides	✓			X		X											
5.1.4 Apply design templates	✓			X													
5.1.5 Change layout for one or more slides	✓			X													
5.1.6 Promote/demote text	✓			X													
5.1.7 Use graphics/clip art from the Internet and other sources to enhance the appearance of the presentation	✓			X													
5.1.8 Insert headers/footers																	
5.1.9 Print slides in various formats (slides, handouts, notes, outline)	✓					X											
5.1.10 Customize a presentation using bullets, transitions, animations, tables, and charts	✓			X													

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5.1.11 Modify master slides																		
5.2 Apply specialized features/tools.																		
5.2.1 Enhance presentation using audio and video	✓			X														
5.2.2 Integrate various software applications																		
5.2.3 Insert/create links and hyperlinks into slides																		
5.2.4 Create an action button																		
5.2.5 Access/save/export presentations as different file formats, including a stand alone version																		
5.2.6 Incorporate organization charts																		
5.3 Refine and deliver a presentation																		
5.3.1 Apply transitions, effects, timings, and annotations to presentation	✓			X														
5.3.2 Utilize outline view and notes pages view																		
5.3.3 Utilize proper public speaking techniques during presentation	✓					X												
5.3.4 Use the pen during a presentation																		
5.3.5 Use on-screen navigation tools																		
5.3.6 Use the Meeting Minder to record audience comments																		
5.3.7 Explore the opportunities available with Net Meeting and NetShow																		

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SELF MANAGEMENT																	
6.1 Demonstrate self-management and professionalism.																	
6.1.1 Prioritize and schedule responsibilities																	
6.1.2 Apply decision-making skills to problem solving	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6.1.3 Display reliability, initiative, honesty and integrity, adaptability, and a good work ethic	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6.1.4 Participate as a member of work teams	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SPREADSHEETS																	
7.1 Utilize basic spreadsheet skills to create, format, and print an electronic workbook.																	
7.1.1 Identify major components of the spreadsheet window and efficiently navigate throughout the worksheet	✓													X			
7.1.2 Open, save, rename, and close a worksheet/workbook	✓													X			
7.1.3 Differentiate among and enter text, numbers, formulas, and functions	✓													X			
7.1.4 Delete, insert, copy, edit, fill, rotate, and move cell contents	✓													X			
7.1.5 Freeze rows and columns	✓													X			
7.1.6 Create and save a worksheet as a template file																	
7.1.7 Use on-line help system	✓													X			
7.1.8 Preview and print worksheet using print options	✓													X			
7.1.9 Apply font sizes/types and number formats	✓													X			

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7.1.10 Manipulate cells (e.g., merge, size, alignment, etc.)	✓													X			
7.1.11 Center worksheet horizontally and vertically	✓													X			
7.1.12 Create/name, copy, clear, and move ranges	✓													X			
7.1.13 Use borders and colors																	
7.1.14 Create headers/footers																	
7.1.15 Change orientation of the page																	
7.1.16 Apply AutoFormats																	
<p>7.2 Use formulas and functions to solve mathematical problems.</p>																	
7.2.1 Create and edit formulas	✓													X			
7.2.2 Create and edit functions, such as AVERAGE, SUM, MIN, MAX, COUNT, IF, PMT, NOW, PV, and FV	✓													X			
7.2.3 Utilize relative, absolute, and mixed cell references in formulas	✓													X			
7.2.4 Copy and move formulas	✓													X			
7.2.5 Link and consolidate data using 3-D references																	
7.2.6 Verify accuracy of formulas and functions using auditing tools																	
<p>7.3 Create a graphical representation (chart) of numerical data and use draw features.</p>																	
7.3.1 Identify the elements of a chart	✓													X			
7.3.2 Add textbox and graphics to a worksheet/chart	✓													X			

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7.3.3 Determine which type of chart represents data most effectively	✓													X			
7.3.4 Create, format, modify, and resize an embedded chart in a worksheet	✓													X			
7.4 Utilize specialized/advanced features of spreadsheet software.																	
7.4.1 Use the database features of a worksheet	✓													X			
7.4.2 Create a pivot table																	
7.4.3 Use horizontal and vertical lookup functions																	
7.4.4 Access/save document as different file formats																	
7.4.5 Create/insert a hyperlink																	
7.4.6 Insert, create, and track comments and changes to a document																	
7.4.7 Use data analysis tools (Goal Seek, Scenarios, and Solver)																	
7.4.8 Apply/remove worksheet/workbook protection																	
7.4.9 Create, record, and play macros to automate repeated tasks																	
7.4.10 Integrate spreadsheets with other windows-based applications	✓													X			
WEB PAGE DESIGN																	
8.1 Utilize Web design skills to plan and create Web pages.																	
8.1.1 Define/apply basic terminology associated with Web page design	✓																X
8.1.2 Determine the purpose/audience of the Web site	✓																X
8.1.3 Determine the information to include on the Web site	✓																X

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8.1.4 Determine method for gathering information and keeping it current	✓																X
8.1.5 Apply copyright laws and netiquette as they relate to Web page design	✓																X
8.1.6 Evaluate existing Web site design	✓																X
8.1.7 Create and format text and use appropriate layout and design techniques	✓																X
8.1.8 Create hyperlinks within the same document and to external and local Web pages	✓																X
8.1.9 Incorporate audio and images and convert to appropriate format	✓																X
8.1.10 Link to multimedia files	✓																X
8.1.11 Incorporate tables, frames, and forms																	
8.1.12 Apply programming languages such as HTML, XHTML, Java, and Java Script																	
8.1.13 Use various editing software to modify Web page code																	
8.1.14 Evaluate/proofread finished product	✓																X
8.2 Publish the Web site.																	
8.2.1 Explain basics of a Web server and decide on a Web server to host Web page files	✓																X
8.2.2 Upload Web files to server	✓																X
8.2.3 Test Web site on various hardware and browsers																	
8.2.4 Edit and update Web files on server																	
8.2.5 Register Web site with various search engines																	

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WINDOWS CONCEPTS/FILE MANAGEMENT																	
9.1 Utilize the Windows environment effectively and efficiently.																	
9.1.1 Describe the objects on the Windows desktop and the parts of a window, including the Start menu																	
9.1.2 Explain the function of the minimize, maximize, restore, and close buttons; move and size a window																	
9.1.3 Perform multi-tasking functions and copy/move data between applications																	
9.1.4 Utilize on-line Help features	✓			X				X		X				X		X	X
9.1.5 Use the Windows Explorer and My Computer for file management (i.e., create, copy, move, and delete folders and files; rename files; format and copy a floppy disk; display multiple folders and files; search for files; sort files; use wildcards to select and view files)																	
9.1.6 Create shortcuts and delete icons on the desktop																	
9.1.7 Use Control Panel to change screen displays and screen savers, change mouse settings, and change date and time																	
9.1.8 Use the Printers folder to change the default printer, change printer properties, view documents in the print queue, cancel a print job, and change the order of documents in the print queue																	
WORD PROCESSING																	
10.1 Utilize word processing skills to create, format, and print a document.																	
10.1.1 Create, save, close, retrieve, and print a document	✓								X	X		X	X				
10.1.2 Reinforce letter, memo, and report formats	✓			X						X							
10.1.3 Select, edit, and format characters and paragraphs	✓								X	X		X	X				
10.1.4 Utilize editing and writing tools such as spell check, thesaurus, grammar check, etc.	✓			X					X	X		X	X				

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10.1.5 Use Print Preview and other print options	✓									X							
10.1.6 Utilize the Help feature and other reference materials	✓									X							
10.1.7 Apply design templates																	
10.1.8 Set and change margins/tabs and hyphenate text	✓									X							
10.1.9 Indent paragraphs and create bulleted/numbered lists	✓									X							
10.1.10 Copy and move text within and between documents	✓									X							
10.1.11 Select, insert, scale, add, and move borders and graphics	✓									X		X					
10.1.12 Insert and format page numbers, headers, and footers	✓									X							
10.2 Utilize formatting techniques																	
10.2.1 Insert symbols and special characters																	
10.2.2 Search for and/or replace text																	
10.2.3 Insert and remove page and section breaks	✓									X							
10.2.4 Insert and format footnotes and endnotes																	
10.2.5 Manipulate multiple-page documents	✓									X							
10.2.6 Key, format, edit, and sort text in tables and columns																	
10.2.7 Perform calculations in a table																	
10.2.8 Utilize the style feature	✓									X							

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10.3 Utilize other specialized features/tools.																	
10.3.1 Utilize drawing tools and apply special effects to graphics	✓											X					
10.3.2 Create a main document and a data source and initiate a mail merge																	
10.3.3 Create/print labels and envelopes																	
10.3.4 Create, collapse, expand, reorganize, and number an outline	✓									X							
10.3.5 Create, format, edit, and update a table of contents and indexes	✓									X							
10.3.6 Create and run macros																	
10.3.7 Create a template for a form																	
10.3.8 Create/insert a hyperlink																	
10.3.9 Access/save documents as different file formats																	
10.3.10 Integrate word processing information with other software applications	✓													X			
10.3.11 Insert, create, and track comments and changes to a document																	