

Advanced Computer Applications

(10005)

Rationale Statement:

Focuses on integrating computer technology with decision-making and problem-solving skills. Areas of instruction may include advanced applications in word processing, spreadsheets, presentation software, and database software as well as on-line searching and web design. Instructional strategies may include computer and technology applications, teacher demonstrations, collaborative instruction, peer teaching, in-baskets, mini-baskets, school and community projects, and a school-based enterprise.

Suggested Grade Level:

Grades 11-12

Topics Covered:

- **Advanced word processing**
- **Advanced spreadsheets**
- **Advanced presentation skills**
- **Advanced database**
- **Advanced Web design**
- **Advanced Internet search**

Core Technical Standards & Examples

Indicator #1: Produce word processing documents with a variety of advanced features.	
Bloom's Taxonomy Level	Standard and Examples
Applying	<p>ACA.1.1 Use word processing skills to create, format, and print a document plus utilize advanced editing and formatting techniques.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Demonstrate the ability to use advanced editing features • Demonstrate the ability to format documents using line spacing, paragraph indentations, margins, text justification, tabs, fonts, styles, and sizes • Demonstrate formatting techniques such as inserting page breaks, page numbering, showing invisible markings, creating headers and footers and footnotes • Demonstrate advanced formatting techniques using symbols, Format Painter, bullets and numbering, borders and shading, AutoFormat,

	columns, drop caps, and section formatting
Creating	<p>ACA.1.2 Create mail merge documents.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Create a main document and a data source and initiate a mail merge. • Create mail merge email messages • Create envelopes and labels • Apply editing and formatting features to a mail merge main document
Creating	<p>ACA.1.3 Create tables with advanced tables features.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Insert multiple rows and columns • Adjust row and column sizes • Merge rows and columns • Uses and edits graphics and objects to enhance tables
Creating	<p>ACA. 1.4 Create macros.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Record a macro • Edit a macro • Execute a macro • Save and store a macro

Indicator #2: Produce spreadsheets with a variety of advanced features.	
Bloom's Taxonomy Level	Standard and Examples
Applying	<p>ACA.2.1 Use spreadsheet skills to create, format, and print a document plus utilize advanced editing and formatting techniques.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Demonstrate the ability to edit spreadsheets • Demonstrate the ability to format spreadsheets • Manipulate and edit worksheets by grouping, inserting and deleting sheets, moving and copying • Insert and edit graphic objects
Applying	<p>ACA.2.2 Demonstrate formulas and functions to perform calculations.</p> <p>Examples:</p>

	<ul style="list-style-type: none"> • Explain the difference between relative and absolute cell references • Use horizontal and vertical lookup functions • Demonstrate ‘what if’ formula and function scenarios
Creating	<p>ACA.2.3 Create advanced spreadsheets for decision making and productivity.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Create a pivot table and evaluate scenarios • Use and evaluate data analysis tools • Create, record, and play macros to automate repeated tasks
Creating	<p>ACA.2.4 Create spreadsheet charts with advanced features.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Demonstrate creating, editing, saving, and printing various spreadsheet charts • Edit and format charts using advanced features • Analyze chart data and how it affects business decisions

<p>Indicator #3: Produce presentations with a variety of advanced features.</p>	
<p>Bloom’s Taxonomy Level</p>	<p>Standard and Examples</p>
Applying	<p>ACA.3.1 Use presentation skills to create, format, and print a presentation document plus utilize advanced editing and formatting techniques.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Demonstrate the ability to edit slides by selecting and manipulating shapes and objects • Add text and change colors, patterns, and fills of objects • Layer and group objects and undo changes • Demonstrate a slideshow incorporating both text and graphics
Analyzing	<p>ACA.3.2 Enhance a presentation with advanced features.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Apply transitions, special effects, timings, and annotations to a presentation • Enhance a presentation using audio and video techniques

	<ul style="list-style-type: none"> • Import graphics and pictures • Insert and create links and hyperlinks into slides • Create action buttons
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Indicator #4: Produce databases with a variety of advanced features.	
Bloom's Taxonomy Level	Standard and Examples
Creating	<p>ACA.4.1 Use database skills to create, format, and print a database plus utilize advanced database techniques.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Create and populate a database • Edit multiple fields and records • Sort and retrieve data using queries • Modify the database design
Creating	<p>ACA.4.2 Create a data entry form.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Create, design, and edit a form using form layout or form wizard • Edit data using a form • Place a calculated field, combo box, and title on a form • Insert, delete, and rearrange controls on the form
Creating	<p>ACA.4.3 Create a report.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Create a report using report layout or report wizard • Modify report, control, and section properties in design view • Insert calculated fields and summary functions • Group and sort records in a report • Insert graphics and clip art from the Internet and other sources to enhance the appearance of the report
Applying	<p>ACA.4.4 Use advanced database tools and techniques for decision making and productivity.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Integrate a database into a spreadsheet or a word processing document • Use database utilities

	<ul style="list-style-type: none"> • Use macros and modules • Use linked database tables to create multiple queries
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Indicator #5: Utilize advanced Web design skills to plan and create Web pages.	
Bloom's Taxonomy Level	Standard and Examples
Creating	<p>ACA.5.1 Utilize advanced Web design skills to plan and create Web pages.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Create and format text and use appropriate layout and design techniques • Create hyperlinks within the same document and to external and local Web pages • Incorporate audio and images and convert to appropriate format • Incorporate tables, frames, and forms • Use various editing software to modify Web page code
Creating	<p>ACA.5.2 Publish the website.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Explain basics of a Web server and decide on a Web server to host Web • Upload Web files to server • Test Web site on various hardware and browsers • Edit and update Web files on server • Explain registering the Web site with various search engines

Indicator #6: Evaluate advanced Internet searches.	
Bloom's Taxonomy Level	Standard and Examples
Analyzing	<p>ACA.6.1 Evaluate Internet resources to retrieve information.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Evaluate sites for accuracy of information • Access library catalogs on the Internet • Upload/download files from sites

	<ul style="list-style-type: none">• Understand mailing lists, newsgroups, and audio/video conferencing• Explore the multimedia capabilities of the World Wide Web
Evaluating	<p>ACA.6.2 Evaluate Internet searches to determine credible information.</p> <p>Examples:</p> <ul style="list-style-type: none">• Perform searches using search techniques• Evaluate information from searches• Narrow searches• Review, evaluate, and select information from multiple resources for making decisions and preparing reports