# EVERETT PUBLIC SCHOOLS
# MICROSOFT OFFICE USER SPECIALIST

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| **Course:** Microsoft Office User Specialist | | **Total Framework Hours:** 90 hours |
| **CIP Code:** 110699 | ☐Exploratory ☒Preparatory | **Date Last Modified:** October 19, 2022 |
| **Career Cluster:** Information Technology | | **Cluster Pathway:** Information Support |

**Industry-Recognized Credentials:**
Microsoft Office Specialist (MOS) Certifications:
PowerPoint Associate Certification,
Word Associate Certification, Word Expert Certification
Excel Associate Certification, Excel Expert Certification
You Science Precision Exams - 21st Century Success Skills
You Science Precision Exams – Business Office Specialist

**Work-Based Learning:**
Career Research and Job Interview/Job Shadow in Course-Related Area
Guest Speaker (In-person and/or remote)
Industry Related Field Trips

**CTSO Alignment**:
DECA

**Course Software:**
Compas Cloud (Certiport)
Jasperactive Onlie
XED
GMetrix

**Course Equipment:**
Currently not available

| COMPONENTS AND ASSESSMENTS |
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| **Performance Assessments:**<br>• Students will demonstrate mastery of basic **digital communications and leadership** skills through the creation of professional quality documents and the completion of skill assessments.<br>• Students will understand Basic Application Knowledge and Word Processing |

**Leadership Alignment:**
Students will access and evaluate information and apply technology effectively through online research. Students will further communicate their research findings clearly through both written documents and classroom presentations.

FBLA

| Competency H: Formatting, Grammar, Punctuation, Spelling, and Proofreading |
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| **Tasks** |
| 1. Apply basic formatting procedures and manipulate data in letters, reports, simple tables, spreadsheets, graphics, graphs and charts, and databases. |
| 2. Use correct grammar, spelling, and punctuation when producing documents. |
| 3. Utilize appropriate functions and references for spelling, grammar, and proofreading. |
| 4. Use appropriate capitalization, punctuation, number expression rule, and editing/proofreading skills to produce mailable documents. |

***Standards and Competencies***

**Unit 1: Foundations/Introductions**

| **Industry Standards and/or Competencies** | **Total Learning Hours for Unit:** 5 |
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- Read, write, define, understand, and use computer terminology.
- Read, interpret, and follow documentation concerning the care and operation of software and hardware.
- Identify and demonstrate the use of computer peripherals including printers, input devices, utilizing written and electronic references.
- Demonstrate appropriate file management techniques.
- Demonstrate the purpose and care of computer components including peripherals.
- Use help menus and reference manuals as needed for technical help and formatting of documents.

***Aligned Washington State Learning Standards***

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| **21 Century Skills** | 1.A Think Creatively - The student will be involved in activities that require applying theory, problem-solving, and using critical and creative thinking skills while understanding outcomes of related decisions<br>3.A Communicate Clearly - The student will demonstrate oral, interpersonal, written, and electronic communication and presentation skills and understands how to apply those skills.<br>6.A Apply Technology Effectively - The student will demonstrate an ability to work with a variety of technologies, identify or solve problems with equipment, including computers and other technologies. This means that the student understands that the student can select equipment and tools, apply technology to specific tasks, and maintain and troubleshoot equipment |
| **Educational Technology** | 2.d. Students manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.<br>4.a. Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems. |
| **English Language Arts** | READING<br>CC: Reading for Literacy in Science and Technical Subjects<br>Key Ideas and Details (11-12)<br>2 - Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.<br>3 - Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.<br>Craft and Structure (11-12)<br>4 - Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11–12 texts and topics. |

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| | Integration of Knowledge and Ideas (11-12) |
| **Mathematics** | Create equations that describe numbers or relationships.<br>Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.<br>Design, evaluate, and/or refine a solution to a complex real-world problem, based on scientific knowledge, student-generated sources of evidence, prioritized criteria, and tradeoff considerations. Science SEP 6<br>Work with peers to set rules for collegial discussions and decision-making |
| **~~Science~~** | ~~Make a quantitative and/or qualitative claim regarding the relationship between dependent and independent variables.~~ |

| **COMPONENTS AND ASSESSMENTS** | |
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| **Performance Assessments:**<br>• Students will understand the purpose and common usage of the program functionality in order to successfully complete the tasks in each of the projects.<br>• Students will create multiple projects as in the previous version, while using enhanced tools, functions, and features from the latest programs**.** | |
| **Leadership Alignment:**<br>Knowledge of computer applications is a necessity in today's high-tech business world. Employees must be able to apply various computer applications in a business environment utilizing critical thinking and decision-making skills. This event provides recognition for members who can efficiently demonstrate computer application skills**.** | |
| ***Standards and Competencies*** | |
| **Unit 2: Microsoft WORD (Core)** | |
| **Industry Standards and/or Competencies** | **Total Learning Hours for Unit:** 25 |
| • Management Documents, Insert and Format Text Paragraphs, and Sections<br>• Manage Tables and Lists, Create and Manage References<br>• Insert and Format Graphic elements | |
| ***Aligned Washington State Learning Standards*** | |
| **Arts** | Develop and refine a determined range of creative and adaptive innovation abilities, such as design thinking and risk taking, in addressing identified challenges and constraints |
| **Educational Technology** | Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.<br>Global Collaborator - Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally |
| **English Language Arts** | READING<br>CC: Reading for Literacy in Science and Technical Subjects<br>Key Ideas and Details (11-12)<br>2 - Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.<br>3 - Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.<br>Craft and Structure (11-12)<br>4 - Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11–12 texts and topics.<br>Integration of Knowledge and Ideas (11-12)<br>7 - Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.<br>WRITING<br>CC: Writing for Literacy in History/Social Studies, Science, and Technical Subjects (9-10) |

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| | Text Types and Purposes<br>2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.<br>Production and Distribution of Writing<br>4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. |
| **Mathematics** | Create equations that describe numbers or relationships.<br>Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. |

**COMPONENTS AND ASSESSMENTS**

**Performance Assessments:**

- Students will create and maintain professional-looking reports, multicolumn newsletters, résumés, and business correspondence.
- Student will have hands-on experience with WORD, has proven competency at an industry associate-level and is ready to enter into the job market. They can demonstrate the correct application of the principal features of Word and can complete tasks independently

**1.1 Navigate within documents**
1.1.1 Search for text
1.1.2 Link to locations within documents
1.1.3 Move to specific locations and objects in documents
1.1.4 Show and hide formatting symbols and hidden text
**1.2 Format documents**
1.2.1 Set up document pages
1.2.2 Apply style sets
1.2.3 Insert and modify headers and footers
1.24 Configure page background elements
**1.3 Save and share documents**
1.3.1 Save documents in alternative file formats
1.3.2 Modify basic document properties
1.3.3 Modify print settings
1.3.4 Share documents electronically
**1.4 Inspect documents for issues**
1.4.1 Locate and remove hidden properties and personal information
1.4.2 Locate and correct accessibility issues
1.4.3 Locate and correct compatibility issues
**2.1 Insert text and paragraphs**
2.1.1 Find and replace text
2.1.2 Insert symbols and special characters
**2.2 Format text and paragraphs**
2.2.1 Apply text effects
2.2.2 Apply formatting by using Format Painter
2.2.3 Set line and paragraph spacing and indentation
2.2.4 Apply built-in styles to text
2.2.5 Clear formatting
**2.3 Create and configure document sections**
2.3.1 Format text in multiple columns
2.3.2 Insert page, section, and column breaks
2.3.3 Change page setup options for a section

**3.1 Create tables**
3.1.1 Convert text to tables
3.1.2 Convert tables to text
3.1.3 Create tables by specifying rows and columns
**3.2 Modify tables**
3.2.1 Sort table data
3.2.2 Configure cell margins and spacing
**3.2.3 Merge and split cells**
3.2.4 Resize tables, rows, and columns
3.2.5 Split tables
3.2.6 Configure a repeating row header
**3.3 Create and modify lists**
3.3.1 Format paragraphs as numbered and bulleted lists
3.3.2 Change bullet characters and number formats
3.3.3 Define custom bullet characters and number formats
3.3.4 Increase and decrease list level
3.3.5 Restart and continue list numbering
3.3.6 Set starting number values
**4.1 Create and manage reference elements**
4.1.1 Insert footnotes and endnotes
4.1.2 Modify footnote and endnote properties
4.1.3 Create and modify bibliography citation sources
4.1.4 Insert citations for bibliographies
**4.2 Create and manage reference tables**
4.2.1 Insert tables of contents
4.2.2 Customize tables of contents
4.2.3 Insert bibliographies
**5.1 Insert illustrations and text boxes**
5.1.1 Insert shapes
5.1.2 Insert pictures
5.1.3 Insert 3D models
5.1.4 Insert SmartArt graphics
5.1.5 Insert screenshots and screen clippings
5.1.6 Insert text boxes
**5.2 Format illustrations and text boxes**
5.2.1 Apply artistic effects
5.2.2 Apply picture effects and picture styles
5.2.3 Remove picture backgrounds
5.2.4 Format graphic elements
5.2.5 Format SmartArt graphics
5.2.6 Format 3D models
**5.3 Add text to graphic elements**
5.3.1 Add and modify text in text boxes
5.3.2 Add and modify text in shapes
5.3.3 Add and modify SmartArt graphic content
**5.4 Modify graphic elements**

5.4.1 Position objects
5.4.2 Wrap text around objects
5.4.3 Add alternative text to objects for accessibility
**6.1 Add and manage comments**
6.1.1 Add comments
6.1.2 Review and reply to comments
6.1.3 Resolve comments
6.1.4 Delete comments
**6.2 Manage change tracking**
6.2.1 Track changes
6.2.2 Review tracked changes
6.2.3 Accept and reject tracked changes
6.2.4 Lock and unlock change tracking

**Leadership Alignment:**
Aligned with FBLA Word Processing competitive Event

***Standards and Competencies***

**Unit 3: Microsoft PowerPoint**

| **Industry Standards and/or Competencies** | **Total Learning Hours for Unit:** 20 |
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- Manage Presentations
- Manage Slides
- Insert and Format Text, Shapes, and Images
- Insert Tables, Charts, SmartArt, 3D Models, and Media
- Apply Transitions and Animations

***Aligned Washington State Learning Standards***

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| **Arts** | Develop and refine a determined range of creative and adaptive innovation abilities, such as design thinking and risk taking, in addressing identified challenges and constraints within and through media arts productions.<br>c. Demonstrate adaptation and innovation through the combination of tools, techniques, and content, in standard and innovative ways, to communicate intent in the production of media artworks.<br>Select, analyze, and interpret artistic work for presentation.<br>Performance Standard (MA:Pr4.1.II)<br>a. Integrate various arts, media arts forms, and academic content into unified media arts productions that retain thematic integrity and stylistic continuity, such as transmedia productions |
| **Educational Technology** | Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.<br>Present adaptations of arguments and explanations that feature evocative ideas and perspectives on issues and topics to reach a range of audiences and venues outside the classroom using print and oral technologies (e.g., posters, essays, letters, debates, speeches, reports, and maps) and digital technologies (e.g., Internet, social media, and digital documentary). |
| **English Language Arts** | Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant<br>Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.<br>READING CC: Reading for Literacy in Science and Technical Subjects Key Ideas and Details (11-12) 2 - Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them |

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| | in simpler but still accurate terms. 3 - Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text. Craft and Structure (11-12) 4 - Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11–12 texts and topics. Integration of Knowledge and Ideas (11-12) 7 - Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem. |
| **Mathematics** | Create equations that describe numbers or relationships.<br>Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. |

**COMPONENTS AND ASSESSMENTS**

**Performance Assessments:**

Students will:

**1.1 Modify slide masters, handout masters, and note masters**

1.1.1 Change the slide master theme or background
1.1.2 Modify slide master content
1.1.3 Create slide layouts
1.1.4 Modify slide layouts
1.1.5 Modify the handout master
1.1.6 Modify the notes master

**1.2 Change presentation options and views**

1.2.1 Change slide size
1.2.2 Display presentations in different views
1.2.3 Set basic file properties

**1.3 Configure print settings for presentations**

1.3.1 Print all or part of a presentation
1.3.2 Print notes pages
1.3.3 Print handouts
1.3.4 Print in color, grayscale, or black and white

**1.4 Configure and present slide shows**

1.4.1 Create custom slide shows
1.4.2 Configure slide show options
1.4.3 Rehearse slide show timing
1.4.4 Set up slide show recording options
1.4.5 Present slide shows by using Presenter View

**1.5 Prepare presentations for collaboration**

1.5.1 Mark presentations as final
1.5.2 Protect presentations by using passwords
1.5.3 Inspect presentations for issues
1.5.4 Add and manage comments
1.5.5 Preserve presentation content
1.5.6 Export presentations to other Formats

**2.1 Insert slides**

2.1.1 Import Word document outlines
2.1.2 Insert slides from another presentation
2.1.3 Insert slides and select slide layouts
2.1.4 Insert Summary Zoom slides

2.1.5 Duplicate slides
**2.2 Modify slides**
2.2.1 Hide and unhide slides
2.2.2 Modify individual slide backgrounds
2.2.3 Insert slide headers, footers, and page numbers
**2.3 Order and group slides**
2.3.1 Create sections
2.3.2 Modify slide order
2.3.3 Rename sections
**3.1 Format text**
3.1.1 Apply formatting and styles to text
3.1.2 Format text in multiple columns
3.1.3 Create bulleted and numbered lists
**3.2 Insert links**
3.2.1 Insert hyperlinks
3.2.2 Insert Section Zoom links and  Slide Zoom links
**4.1 Insert and format tables**
4.1.1 Create and insert tables
4.1.2 Insert and delete table rows and columns
4.1.3 Apply built-in table styles
**4.2 Insert and modify charts**
4.2.1 Create and insert charts
4.2.2 Modify charts
**4.3 Insert and format SmartArt graphics**
4.3.1 Insert SmartArt graphics
4.3.2 Convert lists to SmartArt graphics
4.3.3 Add and modify SmartArt graphic content
**4.4 Insert and modify 3D models**
4.4.1 Insert 3D models
4.4.2 Modify 3D models
**4.5 Insert and manage media**
4.5.1 Insert audio and video clips
4.5.2 Create and insert screen recordings
4.5.3 Configure media playback options
**5.1 Apply and configure slide transitions**
5.1.1 Apply basic and 3D slide transitions
5.1.2 Configure transition effects
**5.2 Animate slide content**
5.2.1 Animate text and graphic elements
5.2.2 Animate 3D models
5.2.3 Configure animation effects
5.2.4 Configure animation paths
5.2.5 Reorder animations on a slide
**5.3 Set timing for transitions**
5.3.1 Set transition effect duration
5.3.2 Configure transition start and finish options

**Leadership Alignment:**
FBLA Competency B: Presentation, Publishing, and Multimedia

| Competency B: Presentation, Publishing, and Multimedia Applications |
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| **Tasks** |
| 1. Identify components of a presentation program (layout views, slide, toolbars, and dialog box). |
| 2. Use presentation software to create a presentation with multiple types of slides incorporating effective use of text, graphics, fonts, builds, preset animation, and transitions. |
| 3. Use presentation software to include diagrams, color and graphic modifications, animation schemes, custom backgrounds, action buttons, hyperlinks, sound, video, and speaker notes. |
| 4. Deliver presentation with supporting materials. |
| 5. Apply desktop publishing principles to create, design, edit, and produce documents using text and graphics. |
| 6. Create visual communications involving text and graphic data (brochures, pamphlets, fliers, and newsletters). |
| 7. Utilize graphic manipulation techniques (wrap text, Word Art) to insert visual aids into document. |
| 8. Create visual communications involving art work (freehand drawing applications, clip art, digitized images). |
| 9. Save cropped or modified images in different file formats. |
| 10. Demonstrate input of data and graphics from various sources (Web, scanner, digital camera). |
| 11. Design, create, edit, and format web pages incorporating various types of media (text, image, video, and audio). |
| 12. Apply multimedia software to create multimedia projects. |

***Standards and Competencies***

**Unit 4: Microsoft Excel (Core)**

| **Industry Standards and/or Competencies** | **Total Learning Hours for Unit:** 20 |
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- Manage Worksheets and Workbooks
- Manage Data Cells and Ranges
- Manage Tables and Table Data
- Perform Operations by using Formulas and Functions
- Manage Charts

***Aligned Washington State Learning Standards***

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| **Arts** | Develop and refine a determined range of creative and adaptive innovation abilities, such as design thinking and risk taking, in addressing identified challenges and constraints |
| **Educational Technology** | 1.a. Students articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes.<br>Students build networks and customize their learning environments in ways that support the learning process.<br>Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.<br>1.d. Students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies.<br>2: Digital Citizen - Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.<br>Students engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.<br>Students manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online<br>3.b. Students evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources. |
| **English Language Arts** | Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant |

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| | Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.<br>READING CC: Reading for Literacy in Science and Technical Subjects Key Ideas and Details (11-12) 2 - Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms. 3 - Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text. Craft and Structure (11-12) 4 - Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11–12 texts and topics. Integration of Knowledge and Ideas (11-12) 7 - Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem. |
| **Mathematics** | Create equations that describe numbers or relationships.<br>Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. |

**COMPONENTS AND ASSESSMENTS**

**Performance Assessments:**

- Students will

**1.1 Import data into workbooks**
1.1.1 Import data from .txt files
1.1.2 Import data from .csv files
**1.2 Navigate within workbooks**
1.2.1 Search for data within a workbook
1.2.2 Navigate to named cells, ranges, or workbook elements
1.2.3 Insert and remove hyperlinks
**1.3 Format worksheets and workbooks**
1.3.1 Modify page setup
1.3.2 Adjust row height and column width
1.3.3 Customize headers and footers
**1.4 Customize options and views**
1.4.1 Customize the Quick Access toolbar
1.4.2 Display and modify workbook content in different views
1.4.3 Freeze worksheet rows and columns
1.4.4 Change window views
1.4.5 Modify basic workbook properties
1.4.6 Display formulas
**2.1 Manipulate data in worksheets**
2.1.1 Paste data by using special paste options
2.1.2 Fill cells by using Auto Fill
2.1.3 Insert and delete multiple columns or rows
2.1.4 Insert and delete cells
**2.2 Format cells and ranges**
2.2.1 Merge and unmerge cells
2.2.2 Modify cell alignment, orientation, and indentation
2.2.3 Format cells by using Format Painter
2.2.4 Wrap text within cells
2.2.5 Apply number formats
2.2.6 Apply cell formats from the Format Cells dialog box

2.2.7 Apply cell styles
2.2.8 Clear cell formatting
**2.3 Define and reference named ranges**
2.3.1 Define a named range
2.3.2 Name a table
**2.4 Summarize data visually**
2.4.1 Insert Sparklines
2.4.2 Apply built-in conditional formatting
2.4.3 Remove conditional formatting
**3.1 Create and format tables**
3.1.1 Create Excel tables from cell ranges
3.1.2 Apply table styles
3.1.3 Convert tables to cell ranges
**3.2 Modify tables**
3.2.1 Add or remove table rows and columns
3.2.2 Configure table style options
3.2.3 Insert and configure total rows
**3.3 Filter and sort table data**
3.3.1 Filter records
3.3.2 Sort data by multiple columns
**4.1 Insert references**
4.1.1 Insert relative, absolute, and mixed references
4.1.2 Reference named ranges and named tables in formulas
**4.2 Calculate and transform data**
4.2.1 Perform calculations by using the AVERAGE(), MAX(), MIN(), and SUM() functions
4.2.2 Count cells by using the COUNT(),COUNTA(), and COUNTBLANK() functions
4.2.3 Perform conditional operations by using the IF() function
**4.3 Format and modify text**
4.3.1 Format text by using RIGHT(), LEFT(),and MID() functions
4.3.2 Format text by using UPPER(), LOWER(), and LEN() functions
4.3.3 Format text by using the CONCAT() and TEXTJOIN() functions
**5.1 Create charts**
5.1.1 Create charts
5.1.2 Create chart sheets
**5.2 Modify charts**
5.2.1 Add data series to charts
5.2.2 Switch between rows and columns in source data
5.2.3 Add and modify chart elements
**5.3 Format charts**
5.3.1 Apply chart layouts
5.3.2 Apply chart styles
5.3.3 Add alternative text to charts for accessibility

**Leadership Alignment:**
FBLA Competency C: Spreadsheet Applications

| Competency C: Spreadsheet and Database Applications |
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| **Tasks** |
| 1. Define spreadsheet terminology (cell, row, column, range, label, value, formula, function, worksheet, relative, absolute, and legend). |
| 2. Create, edit, save, and print worksheets using spreadsheet commands, functions, and formulas. |
| 3. Design and enhance worksheets by inserting, deleting, moving, and copying columns and rows. |
| 4. Use electronic spreadsheet to create, save, print, modify, and obtain graphs and appropriate charts with titles and legends. |
| 5. Rename, rearrange, and manipulate multiple worksheets in a workbook. |
| 6. Use an electronic spreadsheet program to enhance the appearance of a spreadsheet by changing fonts, foreground and background colors, and centering text across columns. |

***Standards and Competencies***

Unit: Excel (Expert) (Optional)

**Industry Standards and/or Competencies** | **Total Learning Hours for Unit:** 10

- Manage Workbook Options and Settings
- Manage and Format Data
- Create Advanced Formulas and Macros
- Manage Advanced Charts and Tables

Expert workbook examples include custom business templates, multiple-axis financial charts, amortization tables, and inventory schedules. An individual earning this certification has approximately 150 hours of instruction and hands-on experience with the product, has proven competency at an industry expert-level and is ready to enter into the job market.

***Aligned Washington State Learning Standards***

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| **Arts** | Develop and refine a determined range of creative and adaptive innovation abilities, such as design thinking and risk taking, in addressing identified challenges and constraints |
| **Educational Technology** | Computational Thinker - Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions<br>Creative Communicator - Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals. |
| **English Language Arts** | Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant<br>Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.<br>READING CC: Reading for Literacy in Science and Technical Subjects Key Ideas and Details (11-12) 2 - Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms. 3 - Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text. Craft and Structure (11-12) 4 - Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11–12 texts and topics. Integration of Knowledge and Ideas (11-12) 7 - Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem. |
| **Mathematics** | Define, evaluate, and compare functions.<br>Create equations that describe numbers or relationships.<br>Interpret functions that arise in applications in terms of the context. |

**COMPONENTS AND ASSESSMENTS**

**Performance Assessments:**

- Students will

**1.1 Manage workbooks**

1.1.1 Copy macros between workbooks
1.1.2 Reference data in other workbooks
1.1.3 Enable macros in a workbook
1.1.4 Manage workbook versions

**1.2 Prepare workbooks for collaboration**

1.2.1 Restrict editing
1.2.2 Protect worksheets and cell ranges
1.2.3 Protect workbook structure
1.2.4 Configure formula calculation options
1.2.5 Manage comments

**1.3 Use and configure language options**

1.3.1 Configure editing and display languages
1.3.2 Use language-specific features

**2.1 Fill cells based on existing data**

2.1.1 Fill cells by using Flash Fill
2.1.2 Fill cells by using advanced; Fill Series options

**2.2 Format and validate data**

2.2.1 Create custom number formats
2.2.2 Configure data validation
2.2.3 Group and ungroup data
2.2.4 Calculate data by inserting subtotals and totals
2.2.5 Remove duplicate records

**2.3 Apply advanced conditional formatting and filtering**

2.3.1 Create custom conditional formatting rules
2.3.2 Create conditional formatting rules that use formulas
2.3.4 Manage conditional formatting rules

**3.1 Perform logical operations in formulas**

3.1.1 Perform logical operations by using nested functions including the IF(), IFS(), SWITCH(), SUMIF(),AVERAGEIF(), COUNTIF(), SUMIFS(),AVERAGEIFS(), COUNTIFS(), MAXIFS(), MINIFS(), AND(), OR(),and NOT() functions

**3.2 Look up data by using functions**

3.2.1 Look up data by using the VLOOKUP(), HLOOKUP(), MATCH(),and INDEX() functions

**3.3 Use advanced date and time functions**

3.3.1 Reference date and time by using the NOW() and TODAY() functions
3.3.2 Calculate dates by using the WEEKDAY() and WORKDAY() functions

**3.4 Perform data analysis**

3.4.1 Summarize data from multiple ranges by using the Consolidate feature
3.4.2 Perform what-if analysis by using Goal Seek and Scenario Manager
3.4.3 Forecast data by using the AND(),IF(), and NPER() functions

**4.1 Create and modify advanced charts**

4.1.1 Create and modify dual axis charts
4.1.2 Create and modify charts including Box & Whisker, Combo, Funnel, Histogram, Map, Sunburst, and Waterfall charts

**4.2 Create and modify PivotTables**
4.2.1 Create PivotTables
4.2.2 Modify field selections and options
4.2.3 Create slicers
4.2.4 Group PivotTable data
4.2.5 Add calculated fields
4.2.6 Format data
**4.3 Create and modify PivotCharts**
4.3.1 Create PivotCharts
4.3.2 Manipulate options in existing PivotCharts
4.3.3 Apply styles to PivotCharts
4.3.4 Drill down into PivotChart details

**Leadership Alignment:**
NA

***Standards and Competencies***

**Unit: WORD (EXPERT) Optional**

| **Industry Standards and/or Competencies** | **Total Learning Hours for Unit:** 10 |
|---|---|

- Manage Workbook Options and Settings
- Use Advanced Editing and Formatting Features
- Create Custom Document Elements
- Use Advanced Word Features

***Aligned Washington State Learning Standards***

| | |
|---|---|
| **Arts** | Develop and refine a determined range of creative and adaptive innovation abilities, such as design thinking and risk taking, in addressing identified challenges and constraints |
| **Educational Technology** | Explore job and career options.<br>Create a template for a résumé and cover letter.<br>Use a personal financial plan or budget Computational Thinker - Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions |
| **English Language Arts** | READING<br>CC: Reading for Literacy in Science and Technical Subjects<br>Key Ideas and Details (11-12)<br>2 - Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.<br>3 - Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.<br>Craft and Structure (11-12)<br>4 - Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11–12 texts and topics.<br>Integration of Knowledge and Ideas (11-12)<br>7 - Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.<br>WRITING<br>CC: Writing for Literacy in History/Social Studies, Science, and Technical Subjects (9-10)<br>Text Types and Purposes |

| | |
|---|---|
| | 2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.<br>Production and Distribution of Writing<br>4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. |
| **Mathematics** | Create equations that describe numbers or relationships.<br>Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. |

| ***21st Century Skills*** | | |
|---|---|---|
| Check those that students will demonstrate in this course: | | |
| **LEARNING & INNOVATION** | **INFORMATION, MEDIA & TECHNOLOGY SKILLS** | **LIFE & CAREER SKILLS** |
| **Creativity and Innovation**<br>☒Think Creatively<br>☒Work Creatively with Others<br>☒Implement Innovations | **Information Literacy**<br>☒Access and /evaluate Information<br>☒Use and Manage Information | **Flexibility and Adaptability**<br>☒Adapt to Change<br>☒Be Flexible |
| **Critical Thinking and Problem Solving**<br>☒Reason Effectively<br>☒Use Systems Thinking<br>☒Make Judgments and Decisions<br>☐Solve Problems | **Media Literacy**<br>☒Analyze Media<br>☒Create Media Products | **Initiative and Self-Direction**<br>☒Manage Goals and Time<br>☒Work Independently<br>☒Be Self-Directed Learners |
| **Communication and Collaboration**<br>☒Communicate Clearly<br>☒Collaborate with Others | **Information, Communications and Technology (ICT Literacy)**<br>☒Apply Technology Effectively | **Social and Cross-Cultural**<br>☒Interact Effectively with Others<br>☒Work Effectively in Diverse Teams |
| | | **Productivity and Accountability**<br>☒Manage Projects<br>☒Produce Results |
| | | **Leadership and Responsibility**<br>☒Guide and Lead Others<br>☒Be Responsible to Others |