Educational Technology and Online Learning 6

Course Summary: Students progress to more sophisticated work in this course, including the use of electronic media and software to apply academic concepts in the creation of meaningful organizers, projects and presentations. Students locate, retrieve and evaluate data in order to construct and analyze databases. Students produce presentations on Internet safety, online predators, and cyberbullying. At the end of the course, students become effective communicators and collaborators as they plan, evaluate and synthesize research emphasizing current issues with technology.

Course Outline

1. **Introduction**
    1. Keyboarding Rows
        - Apply proper keyboarding techniques to improve accuracy, speed, and overall efficiency in computer operation
    2. History of Technology
        - Examine how computer technology has evolved over time
        - Distinguish how changes in technology throughout history have impacted different aspects of the world
    3. Hardware, Components, and Operating Systems
        - Distinguish the difference between hardware and software, and input and output devices
        - Identify hardware, software, components and the operating system of a computer and other technology devices
    4. File Management and Organization
        - Identify different file extensions, and demonstrate proper naming conventions of files
        - Evaluate course folder structure to ensure that it is effective for the specified purpose
        - Create a course folder structure using subfolders to organize and manage files
    5. Troubleshooting Computer Issues
        - Develop and apply strategies for identifying and solving routine hardware and software problems
2. **Microsoft® Word**
    1. Verbs: Past, Present, and Future
        - Academic: Use correct verb tense (past, present, and future) when writing or editing text
        - Technology: Distinguish correct and incorrect verb tense in sentences, and then demonstrate necessary corrections using the Track Changes feature
        - Technology: Select text in a variety of ways and utilize keyboard shortcuts to cut and paste verbs according to past, present, and future tense
    2. Context Clues

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- Academic: Analyze context clues in order to determine the meaning of a word
- Technology: Demonstrate highlighting and modifying text to identify the context clues of an unknown word using a macro
- Technology: Examine sentences to determine which type of context clue is employed in the sentence and label the clue using heading styles available in the Home ribbon

3. Analyzing Literature
    - Academic: Analyze the effect of figurative language on the tone or meaning of a poem
    - Academic: Explore how the author's choice of words shapes the meaning of a poem
    - Technology: Insert and modify a quick table in order to compare and contrast poems
    - Technology: Add headings to a table and merge cells to allocate more space to analyze poetry
4. Greek Mythology
    - Academic: Identify and explain the purpose or social message of ancient myths
    - Technology: Publish a plan for an original myth, and enhance the document by inserting clip art with text wrapped around it and adding a title using WordArt
    - Technology: Determine the theme of a story and then format text using the Mini toolbar to identify what parts of the story support the theme
5. Personification
    - Academic: Define personification
    - Academic: Identify examples of personification
    - Academic: Describe the impact that personification has on the imagery in poetry
    - Technology: Develop a SmartArt graphic that uses images and text
    - Technology: Evaluate and incorporate clip art to illustrate the meaning of personified text
6. Drawing Inferences
    - Academic: Draw inferences about the main character in a text
    - Technology: Utilize the comment feature to answer questions requiring a literature analysis to draw conclusions and inferences
    - Technology: Modify text using the Font window to indicate the answers explicitly stated in the text
7. Technology for Searching
    - Academic: Conduct a scholarly search using Boolean operators
    - Academic: Locate information about Alexander the Great that supports a research topic
    - Technology: Conduct an Internet search about Alexander the Great using filters to narrow results in EBSCO
    - Technology: Modify a table to include a hyperlink to the site, proper citation, and brief notes about each resource
8. Writing an Outline: Alexander the Great
    - Academic: Develop an outline based on research
    - Technology: Generate an outline based on notes to plan an expository essay about Alexander the Great

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9. Writing an Expository Essay
    - Academic: Construct an expository essay which includes an introduction, thesis, body, and conclusion
    - Technology: Utilize multimedia sources to insert images and captions
    - Technology: Demonstrate inserting an endnote to cite sources
    - Technology: Demonstrate correcting grammatical and punctuation errors using the Spelling and Grammar tool

3. **Microsoft® PowerPoint**
    1. Technology for Publishing
        - Academic: Develop the storyline for a personal narrative
        - Technology: Demonstrate using the Record Audio Tool to record a personal narrative story varying the tone of voice, pace, and volume of speech
    2. Analyzing Plots
        - Academic: Order the key events of a plot in the correct sequence
        - Academic: Describe the elements of plot and analyze how they impact the readability of a story
        - Technology: Use Slide Sorter View to put key events of a story in order to show how the plot of a story unfolds in a series of episodes
        - Technology: Insert text boxes to identify the elements of plot in a story
        - Technology: Insert a Title slide to add a title to the story
    3. Narrative Writing
        - Academic: Alter the character's decision at a crucial point in the story and analyze how that change will impact the plot resolution
        - Academic: Propose a new ending for a known story
        - Technology: Create a nonlinear presentation using the Action tool to create a story with alternate endings
        - Technology: Apply transitions to slides to make the presentation engaging to the audience
    4. Values Portrayed in Literature
        - Academic: Adopt the values portrayed in an old story and recreate and apply them in current setting
        - Technology: Apply slide timings to publish a short story
        - Technology: Hide and unhide slides to create a cohesive story when the presentation is published
        - Technology: Publish a short story created in Microsoft® PowerPoint as a movie
    5. Food Chains
        - Academic: Explain how the food chain works
        - Academic: Create a simple food chain
        - Academic: Formulate a hypothesis predicting what would happen if an organism was removed from the food chain
        - Technology: Demonstrate the food chain by inserting shapes and connecting provided images
        - Technology: Construct a complex nonlinear interactive presentation using action buttons to demonstrate the interactions between organisms in a food chain

4. **Microsoft® Excel**
    1. Ordering Positive and Negative Numbers
        - Academic: Sort integers from greatest to least and from least to greatest
        - Technology: Demonstrate keyboard shortcuts to copy and paste and cut and paste data in a spreadsheet

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- Technology: Sort integers from greatest to least and least to greatest using the Sort feature

2. Estimating by Rounding
    - Academic: Identify parts of an equation using mathematical terms
    - Academic: Round two-digit numbers involving three addends in an equation
    - Technology: Utilize the MROUND function to round two-digit numbers involving three addends in an equation
    - Technology: Employ the AutoSum feature to check mental addition of a list of numbers
3. Graphing Data
    - Academic: Select the type of graph that is most appropriate for the data to be displayed
    - Academic: Evaluate advantages and disadvantages of various types of graphs
    - Technology: Graph two data series in multiple formats in order to evaluate the graphs' advantages and disadvantages
4. Interpreting Histograms
    - Academic: Display provided numerical data in a histogram
    - Academic: Explain the difference between a bar graph and a histogram
    - Technology: Build a histogram using the Microsoft® Excel add-in with provided data
5. Creating a Database
    - Academic: Analyze a set of data to answer statistical questions
    - Technology: Build a database to analyze data and solve problems
6. Filtering a Database
    - Academic: Identify and describe patterns in provided data
    - Academic: Given specific database formats, determine filter criteria
    - Technology: Apply filters and use the Sort feature in a database to identify and describe patterns in data
7. Technology for Data Analysis
    - Academic: Collect and interpret data using filtering options and graphs in Microsoft® Excel
    - Technology: Build a database based on data collected in a survey
    - Technology: Analyze collected data using the Filter and Sort functions
    - Technology: Chart numeric data using appropriate graph

5. **Study Skills**
    1. Organization and Time Management
        - Create and follow a study schedule
        - Organize a work/study area
        - Describe benefits of developing good study skills
    2. Using Graphic Organizers
        - Use a process and organizer to evaluate and validate information from the World Wide Web
    3. Memory Aids
        - Devise ways to remember important facts and information
    4. Study Strategies
        - Explain the importance of good note taking as a test preparation strategy
        - Use one new note-taking strategy while completing homework
    5. Test-Taking Strategies
        - Identify test-taking strategies that you will use when taking the next test in each of your current courses
    6. Goal Setting

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- Describe the importance of goal setting in education
- Develop SMART long-term and short-term goals for middle school

7. Learning Through Games and Simulations
    - Utilize and evaluate educational interactive games and simulations in order to demonstrate understanding

6. **Internet Safety**
    1. Acceptable Use Policy
        - Explain the purpose of rules and define Acceptable Use Policy (AUP)
        - Evaluate an AUP and create an AUP for your learning environment
    2. Cybersecurity
        - Define spyware and virus
        - Describe security risks associated with downloading items online
        - Evaluate personal activity on the Internet with regard to putting your computer or information at risk
    3. Cyber Community
        - Compare social roles in the online community to social roles in the physical community
        - Identify features of inappropriate websites and how to avoid them
        - Discuss how cybercitizenship is a necessary component for online communities
    4. Text Messaging and Netiquette
        - Identify the safety risks associated with cell phones and texting
        - Define netiquette and describe how it can help you effectively communicate when texting
    5. Cyberbullying
        - Define cyberbullying and describe ways to prevent it
        - Analyze how student actions impact others
        - Describe how netiquette can be used to prevent cyberbullying
    6. Safeguarding Identity
        - Describe how to safely engage in online relationships
        - Explain risks of providing too much personal information in online profiles, forms, and forums
    7. Protecting Yourself from Online Predators
        - List safety rules for behavior toward strangers in the physical community that also apply to behavior toward strangers in cyberspace
        - Explain the importance of refusing inappropriate online relationships
        - Describe how to interact appropriately and safely online
    8. Digital Literacy I: Successful Searches
        - Compare different types of search engines
        - Write search engine queries that will get quality results and select the most appropriate search string results
    9. Digital Literacy II: Website Validity
        - Explain the importance of using sites that are valid and reliable
        - Evaluate online resources for validity and reliability
    10. Intellectual Property Basics
        - Distinguish between tangible property and intellectual property
        - Define copyright and identify copyrighted materials
    11. Plagiarism and Fair Use
        - Define plagiarism and identify how plagiarism occurs
        - Explain the basic guidelines for fair use of intellectual property

7. **Digital Publishing**
    1. Exploring a Topic

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- Research the impact of technology on the workplace or a career of choice using Boolean search strategies
- Apply questioning and research skills to narrow down a topic for investigation

2. Investigating Design
    - Describe basic elements of design and how they apply to multimedia
3. Selecting an Application and Publishing Work
    - Analyze applications focusing on advantages and disadvantages of each
    - Evaluate an application's usefulness for various purposes
    - Select methods for publishing research
    - Create a multimedia presentation to reflect your research investigation
4. Collaborating Online
    - Utilize technology to share ideas and collaborate with peers
    - Evaluate others' works using provided criteria
5. Evaluating Your Product
    - Revise and edit a project based on provided criteria

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