



## **Educational Technology and Online Learning 3**

**Course Summary:** In this course, students use appropriate technology tools and resources to complete projects, manage information, and solve problems. Students use software to write, organize, analyze, and present information and data. Students learn listening and organizational skills and set attainable learning goals. Students become responsible users of technology as they learn about Internet safety and appropriate online behavior.

### **Course Outline**

#### **1. Keyboarding**

1. Keyboarding Rows: Part 1
  - Demonstrate how to type the home row and the rows above and below the home row
  - Demonstrate proper touch typing posture and finger position while typing
  - Identify the home row of the keyboard
  - Identify the rows above and below the home row
2. Keyboarding Rows: Part 2
  - Apply proper touch typing skills and finger position while typing
  - Demonstrate how to type the home row and the rows above and below the home row
  - Identify the home row of the keyboard
  - Identify the rows above and below the home row
3. Letter C and the Comma Key
  - Apply proper touch typing skills and finger position to type the letter C and the comma key
  - Demonstrate how to type the home row and the rows above and below the home row
  - Identify the home row of the keyboard
  - Identify the rows above and below the home row
4. Letters W and O
  - Apply proper touch typing skills and finger position to type the letters W and O
  - Demonstrate how to type the home row and the rows above and below the home row
  - Identify the home row of the keyboard
  - Identify the rows above and below the home row
5. Letter X and the Period Key
  - Identify the home row of the keyboard
  - Identify the rows above and below the home row
  - Demonstrate how to type the home row and the rows above and below the home row
  - Apply proper touch typing skills and finger position to type the letter X and the period key
6. Letters Q and P

- Identify the home row of the keyboard
- Identify the rows above and below the home row
- Demonstrate how to type the home row and the rows above and below the home row
- Apply proper touch typing skills and finger position to type the letters Q and P

#### 7. Letter Z and the Forward Slash Key

- Identify the home row of the keyboard
- Identify the rows above and below the home row
- Demonstrate how to type the home row and the rows above and below the home row
- Apply proper touch typing skills and finger position to type the letter Z and the forward slash key

#### 8. Review

- Identify the home row of the keyboard
- Identify the rows above and below the home row
- Demonstrate how to type the home row and the rows above and below the home row
- Apply proper touch typing skills and finger position to type simple words

## 2. Microsoft® Word

### 1. Consonant Blends

- Academic: Demonstrate how to read and write words with the beginning consonant blends cr-, fr-, pl-, pr-, and sm-
- Technology: Use the Enter key to start a new line of text in a document
- Technology: Demonstrate how to insert a table in a document to sort and organize words
- Technology: Demonstrate how to highlight consonant blends using the Highlighter drop-down menu

### 2. Contractions

- Academic: Demonstrate how to read and write contractions
- Academic: Evaluate and revise writing using the Spelling and Grammar tool
- Technology: Use the Enter key to start a new line of text in a document
- Technology: Demonstrate how to insert a table in a document to organize words
- Technology: Demonstrate how to format text by changing the font face, font size, and font style to bold, italics, or underline in order to identify contractions

### 3. Reference Tools

- Academic: Use an online dictionary to define words
- Technology: Use the Research button to access the online dictionary
- Technology: Minimize and maximize a window to organize documents

### 4. Multiple-Meaning Words

- Academic: Clarify the meaning of multiple-meaning words
- Academic: Use the words that come before and after an unknown word in a sentence to understand its meaning
- Technology: Use the Enter key to start a new line of text in a document
- Technology: Demonstrate how to type sentences with multiple-meaning words within a document
- Technology: Change the font color of clue words in a sentence that help you figure out the correct meaning of multiple meaning words

### 5. Connecting Adjectives to the Real World

- Academic: Use adjectives in sentences to improve descriptive writing skills

- Technology: Use the Enter key to start a new line of text in a document
  - Technology: Demonstrate how to type sentences with adjectives within a document
  - Technology: Demonstrate how to change the font face, font size, and font style in order to bold, italicize, or underline adjectives
  - Technology: Insert clip art in a document and write sentences with adjectives describing the picture
6. Adverbs
- Academic: Use adverbs in sentences to improve writing skills
  - Technology: Demonstrate how to properly use the Center Align button to align a title in the center of a page
  - Technology: Demonstrate how to type words and sentences within a document and wrap text around a picture
  - Technology: Demonstrate how to change the font face, font size, and font style to bold, italicize, or underline adverbs
  - Technology: Insert clip art in a document and write sentences with adverbs describing the picture
7. Choose the Best Title - Main Idea
- Academic: Create a title for a story based on the main idea
  - Technology: Type words and sentences within a document to explain how you chose a new title for the story
  - Technology: Demonstrate how to use the keyboard shortcuts Ctrl + C and Ctrl + V to copy and paste the best titles for stories from one document to another document quickly
  - Technology: Demonstrate how to create and insert WordArt for a title of a story
8. Pictures Supporting Stories
- Academic: Explain how illustrations contribute to a story
  - Technology: Demonstrate how to type words and sentences within a document
  - Technology: Demonstrate how to change the font face, font size, and font style to bold, italics, or underline to draw attention to important ideas
  - Technology: Demonstrate how to properly use the Left, Right, or Center Align buttons to align text on a page
9. Characters Influencing a Story
- Academic: Describe how a character's actions in a story contribute to the sequence of events
  - Technology: Demonstrate how to format text, change font face, and change font size to draw attention to important text
10. Compare and Contrast
- Academic: Compare and contrast the plots of two stories written by the same author
  - Technology: Demonstrate how to format text using the Bold button in the Home Ribbon
  - Technology: Demonstrate how properly use the Center align button
11. Pollution
- Academic: Research information on pollution to identify the harmful effects on the environment and how to reduce air, water, and land pollution
  - Academic: Organize information into an outline with headings and subtopics
  - Technology: Use the outline view to organize research on actions to reduce pollution

### 3. Microsoft® PowerPoint

1. Ordering Numbers
  - Academic: Demonstrate how to order three-digit numbers in standard and expanded form
  - Technology: Demonstrate how to insert and format a text box within slides in a presentation in order to compare numbers
  - Technology: Use the Slide Sorter view to change the order of the slides to show your understanding of ordering numbers
2. Adding Three-Digit Numbers
  - Academic: Demonstrate how to add three-digit numbers
  - Technology: Demonstrate how to use the Annotation tool in Slide Show view
  - Technology: Demonstrate how to save a final copy of the annotated presentation that shows how you solved the math problem
3. Fractions
  - Academic: Identify the numerator and denominator of fractions
  - Academic: Utilize pictures in order to compare fractions
  - Technology: Demonstrate how to insert and add a table using the Table drop-down menu to organize information on fractions
  - Technology: Demonstrate knowledge of comparing fractions by using the Shape Fill drop-down menu to change the cell fill color within a table
4. Quadrilaterals
  - Academic: Identify and illustrate examples of quadrilaterals, such as a rectangle, square, or rhombus
  - Technology: Demonstrate how to insert and format a text box
  - Technology: Demonstrate how to insert and format shapes
5. Scientific Method
  - Academic: Explain and sequence the steps of the scientific method
  - Academic: Plan and conduct an experiment using the scientific method
  - Technology: Explain how to insert WordArt to illustrate concepts in a presentation
  - Technology: Demonstrate how to type text within a table to display collected information
6. Natural Disasters
  - Academic: Describe different types of natural disasters and their impact on the environment and society
  - Academic: Create an action plan by researching information about a variety of natural disasters to determine societal and environmental impacts
  - Technology: Create a Microsoft® PowerPoint presentation that describes an action plan to respond to natural disasters
  - Technology: Demonstrate how to insert a new slide and add a text box to add information about natural disasters
  - Technology: Demonstrate how to insert WordArt and clip art to illustrate concepts about natural disasters

#### 4. Microsoft® Excel

1. Place Value
  - Academic: Demonstrate how to compare three-digit numbers from least to greatest
  - Academic: Demonstrate how to write a number in standard and expanded form
  - Academic: Explain that a three-digit number represents hundreds, tens, and ones
  - Technology: Demonstrate how to type numbers in a cell and format the cells to appear in a table using the Borders drop-down menu

- Technology: Demonstrate how to apply a cell fill color using the Fill drop-down menu to show which number is greater
2. Multiplication and Repeated Addition
    - Academic: Solve multiplication and addition problems
    - Academic: Identify the relationship between multiplication and repeated addition
    - Technology: Demonstrate how to use the AutoSum function to find the sum of an addition problem
    - Technology: Demonstrate how to create and type formulas in Microsoft® Excel to solve multiplication problems
    - Technology: Explain how to create a table and type data into cells
  3. Commutative Property
    - Academic: Demonstrate how to add three addends using the commutative property
    - Academic: Solve a word problem by adding three addends together
    - Technology: Demonstrate how to create and type a formula to solve an addition problem
    - Technology: Utilize the AutoSum and AutoFill features to add and apply an addition formula to other cells in the workbook
  4. How Many More, How Many Less
    - Academic: Apply subtraction concepts to solve one- and two-step problems to determine “how many more” or “how many less”
    - Academic: Apply knowledge of bar graphs to interpret data
    - Technology: Identify and label parts of a bar graph in order understand the data
    - Technology: Utilize the subtraction formula in Microsoft® Excel to solve problems
  5. Measuring Liquids: Capacity
    - Academic: Apply multiplication concepts in order to convert units of capacity
    - Academic: Identify units of capacity: gallons, quarts, pints, and cups
    - Technology: Demonstrate how to type and apply a multiplication formula to convert liquid measurements
  6. Area
    - Academic: Apply addition concepts to find the area of a rectangle by adding the square units
    - Academic: Demonstrate how to calculate the area of a rectangle by multiplying the length and width
    - Technology: Demonstrate how to type and apply a multiplication formula in a spreadsheet to calculate area of a rectangle
    - Technology: Add data to a table to organize length and width measurements
  7. Perimeter
    - Academic: Apply addition concepts to calculate the perimeter of a shape when given the length of sides
    - Academic: Demonstrate how to find the length of an unknown side when given the perimeter of a shape
    - Technology: Use Geoboard software to design shapes and calculate perimeter
    - Technology: Demonstrate how to type and apply an addition formula in a Microsoft® Excel spreadsheet to calculate perimeter
    - Technology: Add data to a table to organize the lengths of each side of a shape
  8. Sorting Data

- Academic: Describe how to interpret data in a bar graph
- Technology: Demonstrate how to order numbers from least to greatest using the Sort button
- Technology: Demonstrate how to create a bar graph using provided data and label it accordingly

## 5. Study Skills

1. Listening Skills
  - Explain the importance of active listening
  - Describe characteristics of an active listener
2. Organization and Time Management
  - Explain the importance of being organized and having a study schedule
  - Create a study schedule
3. Note Taking
  - Use note-taking strategies to make sense of information
4. Using Timelines
  - Use visual organizers to improve writing and organize information
  - Use a CE-created Timeline to analyze information provided
5. Online Learning
  - Compare online and bricks-and-mortar schools
  - Describe the benefits and challenges of being an online learner
6. Goal Setting
  - Distinguish between short- and long-term goals
  - Set short- and long-term goals for learning

## 6. Internet Safety

1. Cyber Community
  - Demonstrate an understanding of rules to follow to stay safe when online
  - Distinguish between the physical community and the cyber community
  - Describe the concept of cyber citizenship
2. Citizenship and Safety
  - Distinguish between appropriate and inappropriate websites
  - Demonstrate an understanding of rules to follow to stay safe when online
  - Explain the concept of cyber citizenship
3. Cyberbullying
  - Compare and contrast bullying in the physical community to cyberbullying
  - Describe kindness and how it relates to Internet behavior
  - Demonstrate how to use appropriate resources if confronted with an online bully
  - Explain how netiquette relates to cyber citizenship
4. Cybersecurity and E-mail Attachments
  - Describe how computers can be damaged by e-mails containing computer viruses
  - Demonstrate prevention techniques to avoid computer viruses
  - Explain safe procedures for using e-mail
5. Intellectual Property: Part 1
  - Describe different types of media that are intellectual property, such as writings, music, videos, and computer games
  - Explain how property on the Internet can be owned just like physical property
  - Demonstrate an understanding of the copyright laws that protect intellectual property
6. Intellectual Property: Part 2
  - Explain the meaning of the copyright symbol

- Demonstrate use of the copyright symbol to indicate one's ownership of intellectual property
  - Create a project to demonstrate and share knowledge about use of the copyright symbol
7. Personal Safety: Part 1
- Demonstrate an understanding of the term identity
  - Compare how an identity is formed offline to how it is formed online
  - Demonstrate why a positive online identity is important
  - Explain how a person who communicates online can demonstrate his or her identity
8. Personal Safety: Part 2
- Explain the terms tag, post, share, blog, upload, download, and social network as they apply to online activities
  - Describe how personal information can be made public when taking part in online activities that seem safe
  - Demonstrate techniques to maintain personal information privacy while taking part in online activities
9. Safe Interaction
- Demonstrate making responsible choices to be sure of personal safety when using the Internet
  - Create a Microsoft® PowerPoint presentation that lists safety tips when using the Internet and appropriate websites for children