

**COMPUTER APPLICATIONS**  
**ACTIVITY/COURSE CODE: 2702**

**COURSE DESCRIPTION:** The Computer Applications course provides introductory instruction in Microsoft 365 applications to include MS Word, MS Excel, and MS PowerPoint. Students will learn the features and benefits of the applications to apply their knowledge in various problem-based activities and future career demands. In addition, students are engaged in applying key critical thinking skills and the practice of ethical and appropriate behavior for the responsible use of technology.

**OBJECTIVE:** Given the necessary equipment, supplies, and facilities, the student will be able to successfully complete all of the following standards.

**RECOMMENDED PREREQUISITE:** Digital Literacy

**COURSE CREDIT:** N/A

**RECOMMENDED GRADE LEVEL:** 7 – 8

**COMPUTER REQUIREMENTS:** one (desktop/laptop) per student with internet access

**RECOMMENDED SOFTWARE:** Current version of Microsoft Office Suite/Office 365, Open Office, or any word processing, database, spreadsheet, and presentation software used by business and industry

**A. SAFETY**

**The student will understand the academic subject matter, including safety as required for proficiency within their area. They will use this knowledge as needed in their role. The following accountability criteria are considered essential for students in any program of study.**

1. Review school safety policies and procedures.
2. Review classroom safety rules and procedures.
3. Review safety procedures for using equipment in the classroom.
4. Identify major causes of work-related accidents in office environments.
5. Demonstrate safety skills in an office/work environment.

**B. STUDENT ORGANIZATIONS**

**The student will understand the academic subject matter, including professional development, required for proficiency within their area. They will use this knowledge as needed in their role. The following accountability criteria are considered essential for students in any program of study.**

1. Identify the purpose and goals of a Career and Technology Student

Organization (CTSO).

2. Explain how CTSOs are integral parts of specific clusters, majors, and/or courses.
3. Explain the benefits and responsibilities of being a member of a CTSO.
4. List leadership opportunities that are available to students through participation in CTSO conferences, competitions, community service, philanthropy, and other activities.

### **C. TECHNOLOGY KNOWLEDGE**

**The student will understand the academic subject matter, including digital citizenship and the ethical use of technology, as needed in their role. The following accountability criteria are considered essential for students in any program of study.**

1. Demonstrate proficiency and skills associated with the use of technologies that are common to a specific occupation (e.g., keying speed).
2. Identify proper netiquette when using e-mail, social media, and other technologies for communication purposes.
3. Identify potential abuse and unethical uses of laptops, tablets, computers, and/or networks.
4. Explain the consequences of social, illegal, and unethical uses of technology (e.g., cyberbullying, piracy; illegal downloading; licensing infringement; inappropriate uses of software, hardware, and mobile devices in the work environment).
5. Discuss legal issues and the terms of use related to copyright laws, fair use laws, and ethics pertaining to downloading of images, Creative Commons, photographs, documents, video, sounds, music, trademarks, and other elements for personal use.

### **D. SOCIAL AND EMOTIONAL SKILLS**

**The student will understand the academic subject matter, including positive work practices and interpersonal skills, as needed in their role. The following accountability criteria are considered essential for students in any program of study.**

1. Demonstrate self-awareness (e.g., independence, self-awareness, and self-advocacy).
2. Demonstrate creativity (e.g., imaginative, inventive, divergent, and resourceful).
3. Demonstrate problem solving (e.g., investigator, researcher, and decision maker).
4. Demonstrate integrity (e.g., equitable, helpful, accountable, and courageous).
5. Demonstrate motivation (e.g., self-motivated, collaborative, focused, and purposeful).
6. Demonstrate communication skills (e.g., articulate, persuasive, audience-aware).
7. Demonstrate information and media literacy (e.g., researcher, analyzer).
8. Demonstrate career awareness (e.g., proactive, career-minded, career-connected).

## **E. COMPUTING SYSTEMS**

**The student will understand computing systems and how they are used as needed in their role. The following accountability criteria are considered essential for students in any program of study.**

1. Determine appropriate hardware, operating systems, and software based upon the needs of users in various career fields (e.g., computing devices used by professional video producers and students differ).
2. Analyze the use of computing to solve relevant problems.

## **F. NETWORKS AND THE INTERNET**

**The student will understand networks and the internet and how they are used as needed in their role. The following accountability criteria are considered essential for students in any program of study.**

1. Identify and define basic Internet terminology (e.g., World Wide Web, browsers, networks, Internet, intranet, search engine, cloud computing).
2. Describe the uses of the Internet.
3. Identify types of Internet connections.
4. Identify methods to protect data, information, and computing devices across networks.

## **G. IMPACT OF COMPUTING**

**The student will understand the impact of computing, as needed in their role. The following accountability criteria are considered essential for students in any program of study.**

1. Identify traditional and nontraditional careers that use computer science (e.g., computer science in agriculture, medical, and public safety fields).
2. Identify and describe emerging technologies (e.g., virtual reality, robotics, animation, and gaming).

## **H. KEYBOARDING MASTERY**

**The student will demonstrate keyboarding mastery skills, as needed in their role. The following accountability criteria are considered essential for students in any program of study.**

1. Demonstrate proper touch techniques using correct fingers and posture to key alphanumeric information.
2. Demonstrate proper touch techniques using correct fingers and posture to key numeric information on a ten-key pad.
3. Demonstrate speed at minimum grade-level requirement (wpm) with a maximum of three errors on a three-minute timed writing. (NOTE: 20 in 5th grade, 25 in 6th grade, 30 in 7th grade, 35 in 8th grade).

## **I. MS OFFICE OVERVIEW**

**The student demonstrates the necessary knowledge and skills to use Microsoft 365 applications as needed in their role. The following accountability criteria are considered essential for students in any program of study.**

1. Identify common features found throughout the suite of applications, (e.g., ribbons, status bar, scrollbar, etc.)
2. Create new documents.
3. Locate and open existing documents.
4. Create and use folders.
5. Demonstrate the use of shortcut keys.
6. Create, modify, and use templates.
7. Identify and use the Help feature.
8. Identify and use the Mini-toolbar.
9. Use the Undo, Redo, and Repeat commands.
10. Identify and use ribbons.
11. Apply font formats (font type, font size, font color, bold, italics, and underline).
12. Differentiate between Save and Save As (different name, location, or format).
13. Discuss file properties.
14. Ensure document accessibility (e.g., captions, alt text, header rows, color/sound use).
15. Attach, upload, and download files.
16. Differentiate between cloud and desktop applications.

## **J. WORD PROCESSING APPLICATIONS (MS WORD)**

**The student will demonstrate efficiency and effectiveness in using basic word processing application skills as needed in their role. The following accountability criteria are considered essential for students in any program of study.**

1. Create various documents (e.g., flier, letter, resume, envelope, label, MLA/APA report).
2. Demonstrate methods for selecting text in documents. (e.g., single-, double-, triple-, and right-click).
3. Highlight text in document.
4. Cut, copy, paste, and paste special using the clipboard/Office Clipboard.
5. Clear formatting.
6. Copy formats using the Format Painter.
7. Insert and move text (cut-paste and drag-drop).
8. Use special features (e.g., Spelling, Research, Thesaurus, grammar, find/replace, Go To, Word Count). Insert hard (manual) and soft (automatic) page breaks).
9. Insert and format a Cover Page.
10. Insert date and time.
11. Insert bullets, numbering, symbols, and special characters.
12. Align text in paragraphs (center, left, right, and justified).
13. Set character, line, and paragraph spacing options.
14. Apply borders and shading to paragraphs and pages.
15. Use indentation options (left, right, first line, and hanging).
16. Set or change page orientation.

17. Set or change margins.
18. Align text vertically.
19. Create and modify columns.
20. Apply styles, themes, and page backgrounds.
21. Create and modify headers and footers using page numbers, text, images, dates, running headers.
22. Create, edit, and format tables.
23. Modify table structure (insert/delete rows/columns, change cell formats, merge cells, change height/width, and rotate text).
24. Insert, position, edit, and resize graphics in a document (WordArt, SmartArt, shapes, images/pictures, diagrams, and charts).
25. Insert, position, edit and resize a text box in a document.
26. Print various documents using the print menu (duplex, scale to fit, selection only, print location, grayscale), if available.

## **K. ELECTRONIC SPREADSHEET APPLICATIONS (MS EXCEL)**

**The student will demonstrate efficiency and effectiveness in using basic electronic spreadsheet application skills as needed in their role. The following accountability criteria are considered essential for students in any program of study.**

1. Create a worksheet/workbook, entering various types of data.
2. Define and use the name box.
3. Define and use the formula bar.
4. Apply number formats (currency, percent, increase/decrease decimal place, dates, and comma).
5. Clear or edit cell content and/or format.
6. Apply formatting to cells and worksheets (size rows/columns, alignment, merge/split).
7. Insert and delete selected cells, columns, rows, and ranges.
8. Cut, copy, paste, and paste special using the clipboard/Office Clipboard.
9. Copy formats using the Format Painter.
10. Use special features (Spelling, Thesaurus, Research, grammar, find/replace, Go To).
11. Use AutoFill to work with a series.
12. Move between worksheets in a workbook.
13. Insert, delete, move, copy, change tab color, and rename worksheets.
14. Enter a range within a formula using the fill handle option.
15. Use the formula bar to enter and edit formulas using proper order of operations:
  - a. Use basic functions (i.e. AVERAGE, SUM, COUNT, MIN, MAX).
  - b. Use date functions (i.e. NOW and DATE).
  - c. Use logical functions (i.e. IF).
16. Use AutoSum.
17. Create various charts (i.e. column, pie, line, line with markers, scatter plots).
18. Modify charts (i.e. adding title, clip art, legend, data labels, and gridlines).
19. Preview and print charts, if available.
20. Insert, position, edit, and resize graphics on a worksheet (WordArt, SmartArt, shapes, images/pictures, diagrams, and charts).
21. Sort and filter data.

22. Use the following views: print preview, normal view, page break view, zoom view, and Web page preview.
23. Create and edit headers and footers.
24. Set or change page orientation and scaling.
25. Set or change page margins and centering.
26. Print various worksheets and/or workbooks using the print menu (duplex, scale to fit, selection only, print location, grayscale), if available.

## **L. PRESENTATION APPLICATIONS (MS POWERPOINT)**

**The student will demonstrate efficiency and effectiveness in using basic presentation application skills as needed in their role. The following accountability criteria are considered essential for students in any program of study.**

1. Create new presentations using blank and/or an online template.
2. Insert and delete slides.
3. Change the sequence of slides using Normal, Outline, and Slide Sorter view(s).
4. Enter text using normal and outline tabs.
5. Insert, position, edit, and resize graphics in a presentation (WordArt, SmartArt, shapes, images/pictures, diagrams, and charts).
6. Insert, position, edit, and resize text box in a presentation.
7. Navigate among different views (normal, outline, and slide sorter).
8. Change the layout for one or more slides.
9. Apply and modify a theme to all or selected slides.
10. Use special features (Spelling, Thesaurus, Research, grammar, find/replace, Go To).
11. Create and modify headers and footers.
12. Add graphical bullets.
13. Insert hyperlinks.
14. Apply animation and transition.
15. Manage presentations (e.g., setup and customize slide show with rehearsed timings, hidden slides, sound files, use screen navigation tools, pen, highlighter, etc.)
16. Deliver presentations (e.g., print slides, outlines, handouts, and speaker notes, including pure black and white, grayscale, and color).

## **M. ADDITIONAL MICROSOFT 365 APPLICATIONS**

**The student will explore additional Microsoft 365 applications and how they are used in the workplace. The following accountability criteria are considered essential for students in any program of study.**

1. Explore additional applications (e.g., Outlook, Publisher, Sway, Teams, Access).
2. Research various applications and how they are applicable to the workplace.

## **N. PROJECT/SIMULATION LEARNING**

**The student will demonstrate efficiency and effectiveness in using basic MS applications skills as needed in their role. The following accountability criteria are considered essential for students in any program of study.**

1. Complete a comprehensive project, with instructor-approval, that integrates two or more applications demonstrating mastery of skills.

[Course Materials & Resources](#)

[Course Academic Standards and Indicators](#)