Information Technology
Computer Applications (Course Code 3721)
State Curriculum Standards

Communication Networks, the Internet, and Technology Operations

1) Research recent developments in information technology affecting the supply/demand characteristics of the job market, including career pathways and occupational outlooks for occupations in business and finance that require information technology expertise. Synthesize findings into a presentation highlighting the typical roles and responsibilities of professionals in high-growth occupations. (TN CCSS Reading 1, 2, 7, 9; TN CCSS Writing 4, 6, 7, 8, 9)

2) Identify, connect, and demonstrate the correct usage of elements of a typical home computer, including a monitor, keyboard, mouse, network cable, and USB devices (such as camera, memory, or scanner). Perform basic troubleshooting as needed for situations involving these components (e.g., if the computer does not recognize a device). (TN CCSS Reading 3, 4)

3) Correctly and safely execute basic file management operations on a typical personal computer and shared storage media, including the opening, creating, copying, moving, deleting, and renaming of files and folders, as well as searching for a specified file or folder on local or networked storage media. (TN CCSS Reading 3)

4) Describe and demonstrate the correct connections and setup for a new wireless router in a home computing environment. Discuss the impact of network speeds, wireless communication, firewalls, and gateways on individual and societal productivity. (TN CCSS Reading 3, 4)

5) Describe the steps necessary to retrieve, download, and safely install new applications, updates, and plug-ins from the Internet. (TN CCSS Reading 3)

6) Compare and contrast the accessibility of the Internet through a home router versus through a public wi-fi access point. Discuss the risks and advantages of using secure home networks versus publicly accessible networks. (TN CCSS Reading 1, 4, 8, 9)

7) While preparing materials and assignments in this course, use a browser to access and download Internet resources by uniform resource locator (URL), hyperlink, or favorite/bookmark.

Word Processing and Publishing

8) Use a word processing program to create and format documents with academic and business styles (e.g., memos, letters, agendas, reports, tabular lists) to communicate the results of research, meetings, lab reports, and relevant assignments in this course. (TN CCSS Reading 3, 7; TN CCSS Writing 2, 4, 6)

9) Craft documents using word processing program features and methods such as: paragraph formatting (line spacing, justification, indentations); bulleted and numbered lists; tables of multiple columns, with and without borders; margins, headers, footers, page numbers, and footnotes; typeface fonts and weights, including hyperlinks; capitalization, punctuation, number expression, grammar; printing orientation, one- or two-sided, to a selected printer; bibliographies and tables of contents; saving to a file that can be shared and/or transported, including saving to cloud-based or external sources (TN CCSS Reading 3, 4, 7; TN CCSS Writing 2, 4, 6)

10) Enhance documents by including graphic arts components such as borders and shaded elements, graphs and charts from other programs, watermarks, and imagery imported from technology devices and drives as well as sources retrieved from the Internet, including adding citations and/or captions for each element when appropriate. (TN CCSS Reading 3, 7; TN CCSS Writing 4, 5, 6)

11) Create, format, and edit documents suitable for print or electronic distribution, both four-color and two-color (black and white). (TN CCSS Reading 3; TN CCSS Writing 4, 5, 6)

12) Critique and edit existing documents with standard proofreading and editing marks to conform to a standard business style guide (e.g., fonts, colors, line spacing). Practice the use of electronic revision marks and comments, where supported. (TN CCSS Reading 1, 2, 5, 6, 8, 9; TN CCSS Writing 4, 5, 6)

13) Complete a comprehensive word-processing project with instructor approval that applies the skills acquired in this section. For example, prepare a contract, MLA-style report, business proposal, or budget report from a student organization. (TN CCSS Writing 4, 6, 7)

Spreadsheet Applications

14) Use a spreadsheet program to create and format academic and business documents for the purposes of tabulating and calculating numerical and/or textual data (e.g., statistics, historical data, measurements), such as budget calculations, sales reports, lab data, and related analyses. (CCSS Reading 1, 3, 4, 5, 7, 9; TN CCSS Writing 4, 6; TN CCSS Math N-Q, S-ID)

15) Craft documents using a spreadsheet program using features and methods such as: cells, columns, and rows; formulas and functions; copy, move, delete, and fill; cell-value formats (numerical and text) and alignment; column and row width/height, insert/delete, move; printing to a selected printer; saving with a file format that can be shared and/or transported (TN CCSS Reading 3, 4, 5; TN CCSS Writing 4, 6; TN CCSS Math N-Q, S-ID)

16) Create new formulas to analyze data by calculating with, extracting from, presenting, and/or summarizing, including: basic arithmetic calculations; basic mathematic (e.g., SUM, AVG, MIN, MAX) and text (e.g., LEN, LEFT, RIGHT, MID) functions; copying formulas that include both relative and absolute cell references; sorting in ascending/descending order; filtering data to retrieve specific values; basic conditional formatting (e.g., red for negative values) (TN CCSS Reading 3, 4, 5; TN CCSS Writing 6; TN CCSS Math N-Q, S-ID)

17) Create and format for optimal clarity a variety of types of graphs and charts, including bar charts, line charts, pie charts, and X-Y graphs, based on tabulated data. (TN CCSS Reading 3, 4, 7; Writing 4, 5, 6; TN CCSS Math N-Q, S-ID)

18) Retrieve a spreadsheet template (from those installed with the program or from the Internet) and customize it for a particular assignment approved by the instructor. For example, prepare a "timecard" of one's daily hours spent on a month-long job assignment. (TN CCSS Writing 6)

Database Applications

19) Use a database program to interpret the structure of an existing database (found in teaching resources or teacher-created), identifying tables, fields, key fields, queries, forms, and reports. (TN CCSS Reading 1, 3, 4, 5, 7)

20) Using an existing database (found in teaching resources or teacher-created), create and run a database report based on basic queries. For example, retrieve the relevant information to answer a customer product inquiry during a mock customer service phone call. (TN CCSS Reading 3; TN CCSS Math N-Q, S-ID)

21) Using an existing database (found in teaching resources or teacher-created), create, modify, and perform basic queries through a form to create a new table/view in a database. (TN CCSS Reading 3; TN CCSS Math N-Q, S-ID)

Presentation Software

22) Design, create, and deliver an oral presentation for a selected audience on a topic approved by the instructor. Using a specified slide number and duration, include the following elements: a selected theme (colors, background, fonts, etc.); bulleted text based on a chosen style; photographs and other imagery; charts and graphs; video and animated graphics; animated transitions of slides and components within a slide. Save the file in a format that can be transported and shared with the audience. (TN CCSS Writing 4, 6, 7)

23) Design, create, and deliver a self-running electronic slideshow for a selected audience on a topic approved by the instructor. Using a specified slide number and duration, include the following elements: a selected theme (colors, background, fonts, etc.); photographs and other imagery; video and animated graphics; animated transitions of slides. Save the file in a format that can be transported and shared with the audience. (TN CCSS Writing 4, 6, 7)

Digital Citizenship

24) Research, summarize, and deliver (via presentation, document, spreadsheet data/chart, or other format) a summary of the various perspectives and ramifications surrounding an ethical issue related to modern-day electronic communications, as approved by the instructor. Develop and strengthen claim(s) and counterclaim(s) about the issue, citing supportive evidence. Potential issues include spam, flaming, cyberbullying, libel, slandering, and mining of personal data for profit. (TN CCSS Reading 1, 2; TN CCSS Writing 1, 4, 6, 7)

25) Research, summarize, and deliver (via presentation, document, spreadsheet data/chart, or other format) a summary of the various perspectives and ramifications surrounding an ethical issue related to intellectual property rights, as approved by the instructor. Develop and strengthen claim(s) and counterclaim(s) about the issue, citing supportive evidence. Potential issues include copyright infringement, piracy, plagiarism, art licensing, creative commons, and the state/federal laws that govern them. (TN CCSS Reading 1, 2; TN CCSS Writing 1, 4, 6, 7)

26) Explain, furnish examples, and demonstrate technical literacy with the following terms: the Internet, World Wide Web, and various browsers; network speeds, wireless communication, firewalls, and gateways; domains, hyperlinks, homepages, favorites/bookmarks, plugins, tabs, and downloads/uploads

Electronic Communication and Collaboration

27) Employ skills covered in this course (document processing, spreadsheet applications, electronic presentations, databases, Internet fluency) to complete a cross curricular project approved by the instructor. (TN CCSS Writing 6, 7)

January 6, 2015

Dear Parent:

I am excited to have your child in my Computer Applications class. I look forward to working with you to make this class the best it can be for the student. Computer Apps offers the opportunity to students to earn college credit. Last semester 24 students passed the articulation exam and banked 3 hours of college credit through our articulation agreement with Northeast State Community College. The skills learned in this course will make students more productive across the entire curriculum of their whole educational career.

Please read over the materials included in this packet. You'll also find these documents on my web site at http://msalyer.wordpress.com. This site also includes special announcements, project due dates, test dates, correction opportunities, and other items relevant to class. Parents and students should regularly monitor grades online. Students and parents each have their own log in credentials for Passport to Gradebook. Students will use the same credentials to log on to computers every day at school; therefore, parents should not use (or change) a student's password.

Feel free to contact me at 232-2200 (7:30-9:00 is the best time) or by email at salyerm@jcschools.org. I will also be using an SMS (text messaging) system to notify students/parents of upcoming events. Students with cell phones are strongly encouraged to subscribe and parents are welcome to subscribe as well. Simply text **@shhsCompApps** to **23559.** The subscription will require approval. All I ask is that you choose a username that helps me identify you as a parent of a current student (MrSmith or SallysMom, for example).

Throughout this packet are initial boxes where your student has been instructed to discuss items with you. Please take the time to do that and return the packet by Friday, January 9th. This is a quiz grade for students. If you wish, you may add a note regarding any concerns or questions you may have. There is also a $10 fee due by Friday, January 9th that helps cover consumable supplies such as ink and toner cartridges and special supplies for projects. I look forward to hearing from you.

Sincerely,

Marsha Salyer