

COURSE TITLE

Digital Applications 2

LENGTH

One Semester
Grades 9-12

DEPARTMENT

Business Education
Barbara O'Donnell, Supervisor

SCHOOL

Rutherford High School

DATE

Spring 2018

Digital Applications 2

I. Introduction/Overview/Philosophy

Digital Applications 2 is designed to develop advanced skills in word processing, spreadsheet, and slideshow technologies. Students will become familiar with basic and advanced formatting techniques in spreadsheets and word processing, professional email etiquette, presentation skills, and using timesaving features on various platforms such as Microsoft and Google. These software systems will be learned using a hands-on, activity-based approach that will emphasize problem-solving and real-world applications, including public speaking. This course is intended for all students because it is imperative that all students build a solid understanding of the advanced software applications used in higher education and industry.

II. Objectives

- Students will effectively use basic and advanced functions of documents, spreadsheets, and presentation softwares to relay information in a well-composed, organized, and illustrative manner.
- Students will become aware of the importance of professional communication in personal and professional environments.
- Students will gain experience in interpersonal, group, and public communication.
- Students will practice delivery of professional and personal speeches using visual aids to enhance a presentation.
- Students will a variety of platforms to complete similar tasks.

Course Outline:

****Note:** this outline will not be completed in any particular order. Rather, the topics will be covered through projects that integrate a variety of topics**

I. File Management

- A. Save a file properly
- B. Name and organize files
- C. Search and sort files

II. Word Processing Documents

- A. Key/compose letterhead, business letters, faxes, brochures, reports, etc. following all rules of grammar, spelling, punctuation and formatting
- B. Compose email using proper email etiquette
- C. Submit assignment via email using attachments
- D. Design signs, personalized stationery and certificates
- E. Design forms, including interactive forms
- F. Create labels
- G. Create calendars of events

III. Word Processing Features

- A. Create templates and documents using templates
- B. Use print preview, modify print settings, and print visually appealing products

- C. Change page orientation
- D. Change margins
- E. Insert page numbers
- F. Insert header/footers
- G. Create and enhance tables
- H. Insert and edit section breaks, column breaks, and page breaks
- I. Insert hyperlinks
- J. Utilize draw features to create organizational charts, brochures, newsletters, etc.
- K. Use find/replace
- L. Insert, edit, and enhance images

IV. Email Features and Etiquette

- A. Send an email using proper etiquette
 - a. Appropriate subject
 - b. Proper grammar, spelling, and punctuation
 - c. Use appropriate greeting and closing
- B. Include attachments
- C. Use cc and bcc
- D. Organize email
- E. Use advanced features, such as labeling, filtering, and canned responses

V. Presentation Design and Skills

- A. Plan and build a presentation
- B. Modify a presentation
 - a. Add slides of different layout and delete slides
 - b. Change text attributes, slide template layout, master slides, bullet style, slide order
 - c. Add transitions between slides
 - d. Use hidden slides
 - e. Insert images, being cognizant of copyright law
 - f. Insert a table
 - g. Embed a video, shapes, diagrams, tables
 - h. Insert hyperlinks
- C. View in different modes - presentation, with/without outline, etc.
- D. Print utilizing different settings

VI. Public Speaking

- A. Practice effective speaking, listening, and nonverbal skills
- B. Handle conversations, interviews, routine communication, and dealing with differences
- C. Participate effectively in teams by solving problems in groups
- D. Analyze audiences and adjust to the needs of an audience
- E. Prepare visual aids

VII. Spreadsheet Features

- A. Spreadsheet Introduction
 - a. Explore the spreadsheet work area
 - b. Enter text, numbers and values
 - c. Save a workbook
 - d. Enter a formula
 - e. Prepare a worksheet for printing
 - f. Print a worksheet
- B. Modify a Worksheet
 - a. Open an existing workbook
 - b. Use auto-fill
 - c. Insert and delete rows and columns
 - d. Copy and move cell contents
 - e. Use autosum and other automatic functions
 - f. Use relative and absolute formulas
 - g. Spell-check a worksheet
- C. Format a Worksheet
 - a. Format numbers
 - b. Align cell contents
 - c. Format font
 - d. Add borders and change color
 - e. Use format painter
 - f. Freeze panes
 - g. Show/hide rows, columns, and sheets
- D. Formulas/Functions
 - a. Analyze data with SUM, AVERAGE, MAX, MIN, and COUNT
 - b. Use IF to display messages
 - c. Use IF to calculate
 - d. Use NOW to display the current date
 - e. Use pivot tables
 - f. Use conditional formatting
- E. Charts
 - a. Identify common chart types and features
 - b. Modify and enhance charts
 - i. Change the chart type
 - ii. Chart non-adjacent data series
 - iii. Modify chart formats
 - iv. Add, Reorder and Delee a data series
- F. Multi-sheet Workbooks
 - a. Copy data from another application
 - b. Insert, move and rename worksheets
 - c. Edit multiple worksheets simultaneously
 - d. Subtotal data
 - e. Link worksheets
 - f. Use a worksheet to solve a problem
- G. Sort and Filtering a Worksheet

- a. Use a worksheet list as a database
- b. Sort records on the contents of one and more than one fields
- c. Use Autofilter with one and multiple conditions

VIII. **Build a Website Portfolio**

- A. Utilize simple, free web design software
- B. Add and restructure pages
- C. Insert images, videos, calendars, and other media
- D. Embed academic and professional examples of work
- E. Publish and share the portfolio

IX. **Integrate Applications**

- A. Link/Embed spreadsheet data, presentations and word processing within one another
- B. Understand the benefits of linked applications

III. Standards

New Jersey Student Learning Standards

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.

Strand A. Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations.

8.1.12.A.1 Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.

8.1.12.A.2 Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.

8.1.12.A.3 Collaborate in online courses, learning communities, social networks or virtual worlds to discuss a resolution to a problem or issue.

8.1.12.A.4 Construct a spreadsheet workbook with multiple worksheets, rename tabs to reflect the data on the worksheet, and use mathematical or logical functions, charts and data from all worksheets to convey the results.

8.1.12.A.5 Create a report from a relational database consisting of at least two tables and describe the process, and explain the report results.

Strand D. Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

8.1.12.D.1 Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.

8.1.12.D.2 Evaluate consequences of unauthorized electronic access (e.g., hacking) and disclosure, and on dissemination of personal information.

New Jersey Student Learning Standards for English Language Arts

NJSLSA.SL2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

NJSLSA.SL4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

NJSLSA.SL5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

IV. Proficiency Level

This course is open to grades 9-12.

V. Methods of Assessment

- Class Participation
- Individual class work and projects
- Teacher made tests and quizzes
- Group work (class work assignments and projects)
- Oral presentations
- Benchmark Assessment

VI. Grouping

There are no prerequisites for this course.

VII. Articulation/Scope & Sequence/Time Frame

This is a one semester course.

VIII. Resources

Resources include but are not limited to:

Teacher generated classwork and project assignments

The teacher will use the Internet and other sources to find and build quality assignments to meet the curriculum guidelines, state standards, and students' needs.

Other Resources:

Business Math Using Excel by Sharon Burton and Nelda Shelton, Thomson South-Western

DDC Learning Computer Applications by Lisa Bucki, Pearson Education Inc.

DDC Learning Word Processing by Lisa Bucki, Pearson Education Inc.

DDC Learning Spreadsheets by Lisa Bucki, Pearson Education Inc.

Olinzock, Arney, et. al. *Integrated Business Projects* Thompson South-Western Publishing
Second Edition

IX. Methodologies

The following methods of instruction are suggested: group projects, demonstration, independent student class work, and class presentations.

X. Suggested Activities

Integrate computer technology/applications with other academic assignments and incorporate public speaking using the computer as a visual device. Integrate research into formulating and designing projects utilizing advanced word processing and spreadsheet techniques. Utilize modern technologies to complete real world tasks. Aid students in being responsible digital citizens.

XI. Interdisciplinary Connections

This course incorporates real-world math, reading, writing, speaking, listening and design skills using digital applications. The course follows the 21st Century Framework; incorporating life and career skills, the 4 C's (critical thinking, collaboration, communication, and creativity), and information, media and technology skills. The skills learned can be transferred in the use of assignments and projects across the curriculum.

XII. Differentiating Instruction for Students with Special Needs: Students with Disabilities, English Language Learners, and Gifted & Talented Students

Differentiating instruction is a flexible process that includes the planning and design of instruction, how that instruction is delivered, and how student progress is measured. Teachers recognize that students can learn in multiple ways as they celebrate students' prior knowledge. By providing appropriately challenging learning, teachers can maximize success for all students.

Examples of Strategies and Practices that Support:

Students with Disabilities

- Use of visual and multisensory formats
- Use of assisted technology
- Use of prompts
- Modification of content and student products
- Testing accommodations
- Authentic assessments

Gifted & Talented Students

- Adjusting the pace of lessons
- Curriculum compacting
- Inquiry-based instruction
- Independent study
- Higher-order thinking skills
- Interest-based content

- Student-driven
- Real-world problems and scenarios

English Language Learners

- Pre-teaching of vocabulary and concepts
- Visual learning, including graphic organizers
- Use of cognates to increase comprehension
- Teacher modeling
- Pairing students with beginning English language skills with students who have more advanced English language skills
- Scaffolding
 - word walls
 - sentence frames
 - think-pair-share
 - cooperative learning groups

XIII. Professional Development

The teacher will continue to improve expertise through participation in a variety of professional development opportunities.

IX. Curriculum Map

Class	September/February	October/March	November/April
Digital Applications 2	<p>Managing Files</p> <ul style="list-style-type: none"> ● Google Drive ● Computer Hard Drive/ Student Server <p>Spreadsheets using Excel and Google Sheets</p> <ul style="list-style-type: none"> ● Create a spreadsheet ● Move within a spreadsheet ● Print a spreadsheet ● Enter information in a spreadsheet ● Work with formulas and functions ● Format a spreadsheet ● Enhance spreadsheets with automatic formats 	<p>Spreadsheets using Excel and Google Sheets Continued</p> <ul style="list-style-type: none"> ● Sort, filter and edit lists ● Work with multi-sheet workbooks ● Use a Pivot Table ● Create, modify, and enhance charts ● Set up print options 	<p>Google Sites</p> <ul style="list-style-type: none"> ● Create a site ● Tailor to a specific audience to create a professional site ● Add, edit, enhance pages ● Insert multimedia files ● Share and Publish <p>Word Processing using Word and Google Docs</p> <ul style="list-style-type: none"> ● Create various types of professional documents (letters, labels, brochures, newsletters, faxes, organizational charts) ● Create, modify, enhance tables
	December/May	January/June	
	<p>Word Processing using Word and Google Docs Continued</p> <ul style="list-style-type: none"> ● Create various types of professional documents (letters, labels, brochures, newsletters, faxes, organizational charts) ● Insert and format graphics into a document <p>Presentation Software Using PowerPoint and Google Slides</p> <ul style="list-style-type: none"> ● Insert and reorder slides ● Use themes available and download new themes ● Insert transitions and animation ● Embed a video ● Insert, edit, and enhance images following copyright laws ● Use the draw features 	<p>Integration of Platforms</p> <p>Integrating word processing, spreadsheet, and presentation data for analysis.</p> <p>Final Presentations</p>	