

Advanced Computer Applications

Course of Study

Black Horse Pike Regional School District

Department:

Business Education

Prepared by:

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Date: August 11, 2017

BLACK HORSE PIKE REGIONAL SCHOOL DISTRICT

ADVANCED COMPUTER APPLICATIONS

Credits: 2.5 Semester course

2017-2018 Syllabus

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NEW JERSEY STUDENT LEARNING STANDARDS

Standard 9.1 21st-Century Life and Career Skills:

All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.

Standard 9.2 Personal Financial Literacy:

All students will develop skills and strategies that promote personal and financial responsibility related to financial planning, savings, investment, and charitable giving in the global economy.

Standard 9.3 Career Awareness, Exploration, and Preparation:

All students will apply knowledge about and engage in the process of career awareness, exploration, and preparation in order to navigate the globally competitive work environment of the information age.

Standard 9.4 Career and Technical Education:

All students who complete a career and technical education program will acquire academic and technical skills for careers in emerging and established professions that lead to technical skill proficiency, credentials, certificates, licenses, and/or degrees.

NEW JERSEY CAREER READY PRACTICES

Career Ready Practices describe the career-ready skills that all educators in all content areas should seek to develop in their students. They are practices that have been linked to increase college, career, and life success. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

- CRP1.** Act as a responsible and contributing citizen and employee.
- CRP2.** Apply appropriate academic and technical skills.
- CRP3.** Attend to personal health and financial well-being.
- CRP4.** Communicate clearly and effectively and with reason.
- CRP5.** Consider the environmental, social and economic impacts of decisions.
- CRP6.** Demonstrate creativity and innovation.
- CRP7.** Employ valid and reliable research strategies.
- CRP8.** Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP9.** Model integrity, ethical leadership and effective management.
- CRP10.** Plan education and career paths aligned to personal goals.
- CRP11.** Use technology to enhance productivity.
- CRP12.** Work productively in teams while using cultural global competence.

The Career Ready Skills are practiced on a daily basis. The teacher will identify in lesson plans if a particular Career Ready Skill is being stressed.

Unit 1: Organization

- 1.1 Create a digital notebook, sections and pages.** (NJSLS 9.3.12.BM.1, 9.3.12.BM.5)
- 1.2 Apply a template and make subpages.** (NJSLS 9.3.12.BM-ADM.2, 9.3.12.BM-BIM.3, 9.3.12.BM-MGT.2, 9.3.12.BM-HR.2)
- 1.3 Insert a file.** (NJSLS 9.3.12.BM-ADM.2, 9.3.12.BM-BIM.3, 9.3.12.BM-MGT.2, 9.3.12.BM-HR.2)
- 1.4 Add content to subpages.** (NJSLS 9.3.12.BM-ADM.2, 9.3.12.BM-BIM.3, 9.3.12.BM-MGT.2, 9.3.12.BM-HR.2)
- 1.5 Insert and modify tables.** (NJSLS 9.3.12.BM-ADM.2, 9.3.12.BM-BIM.3, 9.3.12.BM-MGT.2, 9.3.12.BM-HR.2)
- 1.6 Send data from other applications to a digital notebook.** (NJSLS 9.3.12.BM-ADM.2, 9.3.12.BM-BIM.3, 9.3.12.BM-MGT.2, 9.3.12.BM-HR.2)
- 1.7 Share a digital notebook Figure out sharing issues.** (NJSLS 9.3.12.BM-BIM.5, 9.3.12.BM-MGT.7)

Unit 2: Communication

- 2.1 Design an Intranet structure.** (NJSLS 9.3.12.BM.2, 9.3.12.BM.5) (NJSLS 9.3.12.BM-ADM.1, 9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3) (NJSLS 9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4, 9.3.12.BM-BIM.5) (NJSLS 9.3.12.BM-MGT.2, 9.3.12.BM-MGT.4, 9.3.12.BM-MGT.6, 9.3.12.BM-MGT.7) (NJSLS 9.3.12.BM-HR.1, 9.3.12.BM-HR.2, 9.3.12.BM-HR.5, 9.3.12.BM-HR.6, 9.3.12.BM-HR.7) (NJSLS 9.3.12.AR-AV.4)
- 2.2 Create a company blog.** (NJSLS 9.3.12.BM.2, 9.3.12.BM.5) (NJSLS 9.3.12.BM-ADM.1, 9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3) (NJSLS 9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4, 9.3.12.BM-BIM.5) (NJSLS 9.3.12.BM-MGT.2, 9.3.12.BM-MGT.4, 9.3.12.BM-MGT.6, 9.3.12.BM-MGT.7) (NJSLS 9.3.12.BM-HR.1, 9.3.12.BM-HR.2, 9.3.12.BM-HR.5, 9.3.12.BM-HR.6, 9.3.12.BM-HR.7) (NJSLS 9.3.12.AR-AV.4)
- 2.3 Create Wiki pages.** (NJSLS 9.3.12.BM.2, 9.3.12.BM.5) (NJSLS 9.3.12.BM-ADM.1, 9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3) (NJSLS 9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4, 9.3.12.BM-BIM.5) (NJSLS 9.3.12.BM-MGT.2, 9.3.12.BM-MGT.4, 9.3.12.BM-MGT.6, 9.3.12.BM-MGT.7) (NJSLS 9.3.12.BM-HR.1, 9.3.12.BM-HR.2, 9.3.12.BM-HR.5, 9.3.12.BM-HR.6, 9.3.12.BM-HR.7) (NJSLS 9.3.12.AR-AV.4)
- 2.4 Social Media.** (NJSLS 9.3.12.BM.2, 9.3.12.BM.5) (NJSLS 9.3.12.BM-ADM.1, 9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3) (NJSLS 9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4, 9.3.12.BM-BIM.5) (NJSLS 9.3.12.BM-MGT.2, 9.3.12.BM-MGT.4, 9.3.12.BM-MGT.6, 9.3.12.BM-MGT.7) (NJSLS 9.3.12.BM-HR.1, 9.3.12.BM-HR.2, 9.3.12.BM-HR.5, 9.3.12.BM-HR.6, 9.3.12.BM-HR.7)

2.5 Mail Merge, labels and envelopes. (NJSLS 9.3.12.BM.2, 9.3.12.BM.5) (NJSLS 9.3.12.BM-ADM.1, 9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3) (NJSLS 9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4, 9.3.12.BM-BIM.5) (NJSLS 9.3.12.BM-MGT.2, 9.3.12.BM-MGT.4, 9.3.12.BM-MGT.6, 9.3.12.BM-MGT.7) (NJSLS 9.3.12.BM-HR.1, 9.3.12.BM-HR.2, 9.3.12.BM-HR.5, 9.3.12.BM-HR.6, 9.3.12.BM-HR.7)

2.6 Tables formulas, advanced formatting. (NJSLS 9.3.12.BM.2, 9.3.12.BM.5) (NJSLS 9.3.12.BM-ADM.1, 9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3) (NJSLS 9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4, 9.3.12.BM-BIM.5) (NJSLS 9.3.12.BM-MGT.2, 9.3.12.BM-MGT.4, 9.3.12.BM-MGT.6, 9.3.12.BM-MGT.7) (NJSLS 9.3.12.BM-HR.1, 9.3.12.BM-HR.2, 9.3.12.BM-HR.5, 9.3.12.BM-HR.6, 9.3.12.BM-HR.7)

2.7 Presentation/slides. (NJSLS 9.3.12.BM.2, 9.3.12.BM.5) (NJSLS 9.3.12.BM-ADM.1, 9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3) (NJSLS 9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4, 9.3.12.BM-BIM.5) (NJSLS 9.3.12.BM-MGT.2, 9.3.12.BM-MGT.4, 9.3.12.BM-MGT.6, 9.3.12.BM-MGT.7) (NJSLS 9.3.12.BM-HR.1, 9.3.12.BM-HR.2, 9.3.12.BM-HR.5, 9.3.12.BM-HR.6, 9.3.12.BM-HR.7) (NJSLS 9.3.12.AR-AV.4)

2.8 Word processing/Desktop publishing. (NJSLS 9.3.12.BM.2, 9.3.12.BM.5) (NJSLS 9.3.12.BM-ADM.1, 9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3) (NJSLS 9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4, 9.3.12.BM-BIM.5) (NJSLS 9.3.12.BM-MGT.2, 9.3.12.BM-MGT.4, 9.3.12.BM-MGT.6, 9.3.12.BM-MGT.7) (NJSLS 9.3.12.BM-HR.1, 9.3.12.BM-HR.2, 9.3.12.BM-HR.5, 9.3.12.BM-HR.6, 9.3.12.BM-HR.7)

Unit 3: Data Analysis

3.1 Create, modify, and format spreadsheets to analyze and clearly communicate data. (NJSLS 9.3.12.BM.4, 9.3.12.BM.5) (NJSLS 9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3) (NJSLS 9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4) (NJSLS 9.3.12.BM-MGT.2) (9.3.12.BM-HR.2, 9.3.12.BM-HR.7)

3.2 Apply formulas, such as IF, SUMIF, SUMIFS, COUNTIF, COUNTIFS, PMT, FV, PV, MAX, MIN, MEDIAN, ROUND, COUNT, COUNTA, NOW, VLOOKUP, HLOOKUP, to analyze data and make informed decisions. (NJSLS 9.3.12.BM.4, 9.3.12.BM.5) (NJSLS 9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3) (NJSLS 9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4) (NJSLS 9.3.12.BM-MGT.2) (9.3.12.BM-HR.2, 9.3.12.BM-HR.7)

3.3 Use advanced analysis techniques, such as Nesting formulas, Formulas referencing other worksheets, What-if Analysis, What-if Data Table, Goal Seek, Solver, to analyze data and make informed decisions. (NJSLS 9.3.12.BM.4, 9.3.12.BM.5) (NJSLS 9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3) (NJSLS 9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4) (NJSLS 9.3.12.BM-MGT.2) (NJSLS 9.3.12.BM-HR.2, 9.3.12.BM-HR.7)

3.4 Organize and efficiently analyze data using sorting and pivot tables. (NJSLS 9.3.12.BM.4, 9.3.12.BM.5) (NJSLS 9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3) (NJSLS 9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4) (NJSLS 9.3.12.BM-MGT.2) (9.3.12.BM-HR.2, 9.3.12.BM-HR.7)

3.5 Create charts to analyze and clearly communicate data. (9.3.12.BM.4, 9.3.12.BM.5)
(9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3) (9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4) (9.3.12.BM-MGT.2)
(9.3.12.BM-HR.2, 9.3.12.BM-HR.7)

3.6 Complete a business simulation including formulas, charts, and stock analysis.
(9.3.12.BM.4, 9.3.12.BM.5) (9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3) (9.3.12.BM-BIM.3,
9.3.12.BM-BIM.4) (9.3.12.BM-MGT.2) (9.3.12.BM-HR.2, 9.3.12.BM-HR.7)

Unit 4: Database Management

4.1 Understanding database & terminology. (9.3.12.BM.4, 9.3.12.BM.5) (9.3.12.BM-ADM.2,
9.3.12.BM-ADM.3) (9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4) (9.3.12.BM-MGT.2) (9.3.12.BM-HR.2,
9.3.12.BM-HR.7)

4.2 Navigating a database. (9.3.12.BM.4, 9.3.12.BM.5) (9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3)
(9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4) (9.3.12.BM-MGT.2) (9.3.12.BM-HR.2, 9.3.12.BM-HR.7)

4.3 Changing the appearance of a datasheet. (9.3.12.BM.4, 9.3.12.BM.5) (9.3.12.BM-ADM.2,
9.3.12.BM-ADM.3) (9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4) (9.3.12.BM-MGT.2) (9.3.12.BM-HR.2,
9.3.12.BM-HR.7)

4.4 Create a database. (9.3.12.BM.4, 9.3.12.BM.5) (9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3)
(9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4) (9.3.12.BM-MGT.2) (9.3.12.BM-HR.2, 9.3.12.BM-HR.7)

4.5 Design, create, and save tables. (9.3.12.BM.4, 9.3.12.BM.5) (9.3.12.BM-ADM.2,
9.3.12.BM-ADM.3) (9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4) (9.3.12.BM-MGT.2) (9.3.12.BM-HR.2,
9.3.12.BM-HR.7)

4.6 Creating queries. (9.3.12.BM.4, 9.3.12.BM.5) (9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3)
(9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4) (9.3.12.BM-MGT.2) (9.3.12.BM-HR.2, 9.3.12.BM-HR.7)

4.7 Sort & filter data. (9.3.12.BM.4, 9.3.12.BM.5) (9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3)
(9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4) (9.3.12.BM-MGT.2) (9.3.12.BM-HR.2, 9.3.12.BM-HR.7)

4.8 Specify a primary key. (9.3.12.BM.4, 9.3.12.BM.5) (9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3)
(9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4) (9.3.12.BM-MGT.2) (9.3.12.BM-HR.2, 9.3.12.BM-HR.7)

4.9 Create an input mask. (9.3.12.BM.4, 9.3.12.BM.5) (9.3.12.BM-ADM.2, 9.3.12.BM-ADM.3)
(9.3.12.BM-BIM.3, 9.3.12.BM-BIM.4) (9.3.12.BM-MGT.2) (9.3.12.BM-HR.2, 9.3.12.BM-HR.7)

CORE SKILLS

COURSE DESCRIPTION

Advanced Computer Applications

Advanced Computer Applications is designed to guide students to become better and more capable software users and to teach students advanced computer concepts for processing data into useful information needed in business situations. Specific focus is given to advanced concepts and skills of word processing, spreadsheet, and database management. The programs of Microsoft Office and Google Suite are used.

METHODS OF EVALUATION

50% Daily Classwork Assignments

30% Assessment

20% Class Participation

Late Work Submission Policy

Daily Work: A pupil who has been absent from school will be given an opportunity to make up assignments, provided the assignments are completed **during a period equal to the length of his/her absence**. *That period may be extended for the completion of long term/Minor/Major assignments at the discretion of the teacher (on an individual basis and specific to the reason for absence when clearly communicated with the teacher).*

When Due Dates are Posted for Assignments:

There will be a 10% reduction for every day late after the posted due date in Genesis.

Black Horse Pike Regional School District Curriculum Template

ENGAGING STUDENTS — FOSTERING ACHIEVEMENT — INSPIRING EXCELLENCE

Course Name: Advanced Computer Applications

Course Number: 060640

PART I: UNIT RATIONALE

WHY ARE STUDENTS LEARNING THIS CONTENT AND THESE SKILLS?

<p>Course/Unit Title: Advanced Computer Applications/Organization</p>	<p>Unit Summary: All students will develop organization and note-taking skills using a digital notebook.</p>
<p>Grade Level(s): 10-12</p>	
<p>Essential Question(s):</p> <ol style="list-style-type: none"> 1. Why should you organize your information using a notebook? 2. What are the benefits of taking notes electronically? 3. What are the benefits of sharing notes electronically? 4. Why should you insert different content into digital notebooks? 5. Why should you use templates? 	<p>Enduring Understanding(s): Students will understand that...</p> <ul style="list-style-type: none"> • Organization is essential to succeed in school and career. • Digital notebooks enable students to organize and to add diverse content from a variety of sources. • Digital notebooks allows students to collaborate with others remotely. • Digital notebooks contains features that allow students to find information efficiently.

PART II: INSTRUCTIONAL STRATEGIES AND RESOURCES

DESCRIBE THE LEARNING TARGETS.

After each target, identify the New Jersey Student Learning Standards that are applicable

Learning Target	NJSLS:
Students will be able to:	9.3.12.BM.1
1. Create a notebook and organize the notebook into sections, pages, and sub-pages.	9.3.12.BM.5
2. Insert notes, files, pictures, tables, audio, video, meetings, screen clippings, and links into a digital notebook.	9.3.12.BM-ADM.2
3. Create and manage tags.	9.3.12.BM-BIM.3
4. Share information with others electronically.	9.3.12.BM-BIM.5
5. Utilize the cloud to access notes from other devices.	9.3.12.BM-MGT.2
	9.3.12.BM-MGT.7
	9.3.12.BM-HR.2

Inter-Disciplinary Connections:

English

Students will engage with the following text:

http://highered.mcgraw-hill.com/sites/007661395x/student_view0/onenote_2010_tutorial.html

<https://tecnologiedipmatpd.files.wordpress.com/2015/01/msonenote13.pdf>

Students will write:**Journaling:**

1. Students will use a digital notebook to take notes throughout the semester that they can save on a shared drive and access from any web enabled device.
2. Students will record how to complete certain procedures in a digital notebook.
3. Students will create notebook that links to post-secondary goals

PART III: TRANSFER OF KNOWLEDGE AND SKILLS**DESCRIBE THE LEARNING EXPERIENCE.****How will students uncover content and build skills.****Projects:**

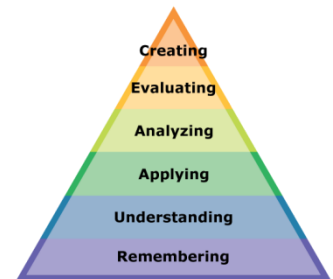
1. Exercise 1-2 and Activity 1: Create a Notebook, sections, and pages
2. Exercise 3: Type a Note and Format Text
3. Exercise 4 and Activity 5 and 6: Insert and modify a table
4. Exercise 5 and Activity 2: Apply a template and make subpage
5. Exercise 6 and Activity 4: Add content to a template
6. Exercise 7: Tag a note and use tag summary page
7. Exercise 8 and Activity 3: Insert a file and a link
8. Exercise 9: Check Spelling
9. Exercise 10: Delete a page and insert pictures
10. Exercise 11: Insert video
11. Exercise 12: Send to OneNote and Change Background
12. Exercise 13: Use Pen Mode and Convert Handwriting
13. Exercise 14: Insert an Outlook Meeting
14. Exercise 15 and Activity 7: Format a list and insert a screen clipping
15. Exercise 16: Insert Audio
16. Exercise 17: Search a notebook
17. Exercise 18: Save to Different Formats
18. Exercise 19: Print from OneNote
19. Exercise 20: Share a notebook
20. Activity 8: Send to OneNote
21. Exercise 20: Share a notebook
22. Activity 8: Send to OneNote

Class Activities:

- Teacher generated handouts and assignments

- Smart Board demonstrations
- Teacher modeling using LanSchool
- Create, organize, and add content to digital notebooks

PART IV: EVIDENCE OF LEARNING
IDENTIFY THE METHODS BY WHICH STUDENTS WILL DEMONSTRATE
THEIR
UNDERSTANDING OF CONTENT AND THEIR ABILITY TO APPLY SKILLS.
IDENTIFY BLOOM'S LEVELS.



Formative Assessments:

Independent projects completed and shared to ensure student understanding and ability to transfer knowledge. Daily class participation and classwork grades.

Summative Assessments:

Projects and tests graded with skills assessment.

Performance Assessment:

Teacher observed skills assessment.

Accommodations/Modifications:

- Extra time.
- Decrease the amount of information that is needed.
- Use of visual aids.
- Introduce new vocabulary before the lesson and have that vocabulary available for students.
- Provide guided notes when necessary.
- Break long assignments into parts with separate due dates.
- Read directions aloud/reread and explain as needed.
- Reinforce positive behavior.
- Preferential seating.
- Complete sample problems or tasks to model for students.

PART I: UNIT RATIONALE**WHY ARE STUDENTS LEARNING THIS CONTENT AND THESE SKILLS?**

<p>Course/Unit Title: Advanced Computer Applications/Communication</p>	<p>Unit Summary: Businesses communicate internally and externally using word processing, desktop publishing, database, e-mail, and presentation software. All students will develop skills creating, editing, and modifying business communications using various software applications.</p>
<p>Grade Level(s): 10-12</p>	
<p>Essential Question(s):</p> <ol style="list-style-type: none"> 1. What is the difference between internal and external communications? 2. What groups of people are included in internal and external communications? 3. What is the purpose of a company's intranet? 4. What is the purpose of a company having a blog? 5. What is the value of using Wiki pages? 6. Why should companies use social media sites? 7. What is the value of mail merge as a marketing tool? 8. Why use Word to create tables with calculations? 9. Why and when do companies use presentation/slide shows? 10. What type of communication documents would a company create using word processing and/or desktop publishing software? 	<p>Enduring Understanding(s): Students will understand that...</p> <ul style="list-style-type: none"> ● Internal communications are within the company and external communications are outside of the company. ● The internal communications are with all levels of employees and external communications are with suppliers/vendors, clients/customers, investors/partners. ● A company's intranet is used to disseminate information to the employees and to be used as resource for company policies and as a tool by employees for collaboration. Companies use blogs to communicate both internally and externally by collecting feedback and/or opinions on products. ● Wiki pages are used by project members for collaboration, used by customer service and/or tech support departments to answer customer online questions, and used by departments for open communication to management. ● Social media websites such as Twitter, Instagram, Facebook, etc. are a means for mass marketing, public relations, and quick communication to followers such as employees, clients, or customers. ● Mail merges create a personal touch in marketing because the documents are personalized with names and other information. ● Tables present data in a simple, easy to understand format and are easy to create for basic calculations of small amounts of data. ● Companies use presentation/slide shows to communicate both internally and externally because this communication method is more visually appealing and stimulating to the audience. ● Companies use word processing and/or desktop publishing software to create flyers, brochures, letters, agendas, announcements, advertisements, etc for both internal and external communications.

PART II: INSTRUCTIONAL STRATEGIES AND RESOURCES

DESCRIBE THE LEARNING TARGETS.

After each target, identify the New Jersey Student Learning Standards that are applicable

Learning Target

Students will be able to:

- | | |
|--|--|
| 1. Research articles about creating/designing a company intranet, blog, wiki page, social media site. Using the digital notebook, summarize the findings using at least 3 sources for each communication method. | 9.3.12.BM.2
9.3.12.BM.5
9.3.12.BM-ADM.1
9.3.12.BM-ADM.2 |
| 2. Design on paper in Word and/or Google docs a company intranet, blog, wiki page, social media site. If the computer system allows, create a company intranet, blog, wiki page, and social media site. | 9.3.12.BM-ADM.3
9.3.12.BM-BIM.3
9.3.12.BM-BIM.4 |
| 3. Create database for mail merges of letters, flyers, and brochures. | 9.3.12.BM-BIM.5 |
| 4. Create the merge form for letters, flyers, and brochures. | 9.3.12.BM-MGT.2 |
| 5. Create a table using data that requires basic calculations and advanced formatting features such as indents and bullets.. | 9.3.12.BM-MGT.4
9.3.12.BM-MGT.6 |
| 6. Create an interactive presentation in PowerPoint and/or Google slides. | 9.3.12.BM-MGT.7
9.3.12.BM-HR.1 |

Strategies:

- | | |
|--|----------------|
| 1. Lecture will be used to give instruction and oral directions. | 9.3.12.BM-HR.2 |
| 2. Peer editing will be used to allow students to help each other. | 9.3.12.BM-HR.5 |
| 3. Modeling will be used on the SmartBoard or in LanSchool. | 9.3.12.BM-HR.6 |
| 4. Pair Share will be used in taking and reviewing Cornell notes recorded in a digital notebook. | 9.3.12.BM-HR.7 |
| 5. Group discussion of new concepts and features. | 9.3.12.AR-AV |
| 6. Internet research for business samples of communication methods. | |
| 7. Group collaboration on major projects. | |

Inter-Disciplinary Connections:

English: Designing communication methods and adding information to the documents. Writing and editing business letters, flyers, brochures.

Math: table with formulas

Students will engage with the following text:

Hoggartt, Jack P. Ed.D and Jon A. Shank, Ed.D. Century 21 Computer Applications and Keyboarding, 8th Edition. South-Western Publishing, 2006.

Teacher Resources:How to set up an intranet:

<https://www.myhubintranet.com/how-to-create-an-intranet-beginners-guide/>
<https://www.myhubintranet.com/category/creating-an-intranet/> (multiple articles)
<https://www.thoughtfarmer.com/intranets-101/>
<https://www.techdonut.co.uk/communications/create-an-intranet>
<https://www.simpleintranet.org/detailed-steps-for-creating-a-new-intranet/>
<https://axerosolutions.com/blogs/timeisenhauer/pulse/327/25-ideas-for-creating-a-better-intranet-solution-that-your-employees-are-sure-to-love>
<https://www.bettercloud.com/monitor/google-sites-intranet/>

How to set up classroom blogs:

<https://startbloggingonline.com/get-started-classroom-blogging/>
<https://startbloggingonline.com/>
<http://www.brighthubeducation.com/teaching-methods-tips/121823-educational-blogging-platforms-for-your-students/>
http://www.educationworld.com/a_tech/tech/tech217.shtml

Why businesses blog:

<https://blog.hubspot.com/marketing/the-benefits-of-business-blogging-ht>
<http://blog.wishpond.com/post/47804902390/4-reasons-why-blogging-is-important-for-your-business>
<https://smallbiztrends.com/2016/07/why-small-business-blog.html>
<https://www.sproutcontent.com/blog/19-reasons-why-your-business-should-be-writing-a-blog>

How to start a business blog:

<http://www.socialmediaexaminer.com/how-to-start-a-business-blog-seven-essentials-for-success/>
<https://www.entrepreneur.com/article/248302>
<http://www.toprankblog.com/2010/02/start-a-small-business-blog/>
<https://business.tutsplus.com/tutorials/how-to-start-a-blog-for-your-business--cms-26335>
<https://www.bloggingbasics101.com/how-do-i-start-a-blog/>

Creating and using Wiki pages.

<https://www.youtube.com/watch?v=vvy7LgC4MXA>
<https://www.youtube.com/watch?v=-dnL00TdmLY>
<http://theelearningcoach.com/elearning2-0/using-wikis-for-elearning/>
<https://cft.vanderbilt.edu/guides-sub-pages/wikis/>
<http://www.wikihow.com/Start-a-Wiki>
<https://help.github.com/articles/about-github-wikis/>

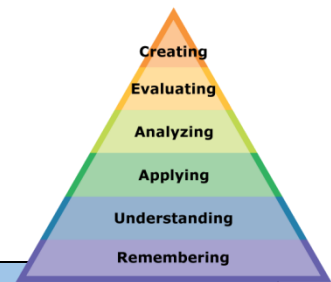
Students will write:

1. Daily Warm up/Do Now
2. Lesson Reflections
3. Internet research summaries
4. Cornell Notes

PART III: TRANSFER OF KNOWLEDGE AND SKILLS**DESCRIBE THE LEARNING EXPERIENCE.****How will students uncover content and build skills.****Class activities**

- Teacher-generated Handouts for:
 - Designing an intranet.
 - Creating a blog.
 - Creating a wiki page.
 - Choosing social media sites.
 - Designing a social media site.
 - Creating mail merges (letters, flyers, brochures).
 - Creating an interactive presentation/slides.
- Projects
 - Design and create an intranet, blog, wiki page, social media site.
 - Research articles on how to design/create communication methods listed above.
 - Summarize findings in digital notebook.
 - Collaborate design layout of intranet.
 - Create mail merge documents
 - Suggested practice activity: Textbook: Word Processing 11 pg 357-359 Activity 1-7.
 - Independently create database for mail merge
 - Independently design letterhead and write business letter to merge for mass marketing
 - Independently design a flyer and a brochure to merge for mass marketing
 - Independently design an agenda for internal and external method of communications
 - Create interactive PowerPoint and Google slides presentation
 - Presentations are business based such as new employee orientation or new product information
 - Tables—Advanced Editing Features -- bullets, indents, formulas
 - Textbook pg 199 Table 2, pg 209 Table 1
 - Textbook Word Processing 13 Activity 1-5 pg 395-397
 - Textbook Lesson 126 Tables 1-4 pg 398
 - Textbook Lesson 127 Tables 1-4 pg 399
 - Textbook Lesson 129 Tables 6 pg 403
 - Textbook Lesson 131 Table pg 407
 - Textbook Lesson 145 Document 1 pg 436

PART IV: EVIDENCE OF LEARNING
IDENTIFY THE METHODS BY WHICH STUDENTS WILL DEMONSTRATE
THEIR
UNDERSTANDING OF CONTENT AND THEIR ABILITY TO APPLY SKILLS.
IDENTIFY BLOOM'S LEVELS.



Formative Assessments:

Daily projects completed and turned in to ensure student understanding and ability to transfer knowledge. Daily class participation and classwork grades.

Summative Assessments:

Projects and tests given after students have completed enough of the daily projects with a level of competence. Graded with a rubric.

Performance Assessment:

Teacher observed skills assessment.

Accommodations/Modifications:

- Extra time.
- Decrease the amount of information that is needed.
- Use of visual aids.
- Introduce new vocabulary before the lesson and have that vocabulary available for students.
- Provide guided notes when necessary.
- Break long assignments into parts with separate due dates.
- Read directions aloud/reread and explain as needed.
- Reinforce positive behavior.
- Preferential seating.
- Complete sample problems or tasks to model for students.

PART I: UNIT RATIONALE

WHY ARE STUDENTS LEARNING THIS CONTENT AND THESE SKILLS?

Course/Unit Title: Advanced Computer Applications/Data Analysis	Unit Summary: All students will develop critical thinking and problem-solving skills required to analyze business data using spreadsheet software.
Grade Level(s): 10-12	
Essential Question(s): <ol style="list-style-type: none"> 1. How can spreadsheets be used to analyze and communicate data effectively? 2. How can formulas be used to analyze data to make informed decisions? 3. What advanced analysis techniques can be performed efficiently in a spreadsheet? 4. What are the benefits of charting excel data? 5. How can sorting and pivot tables be used to organize and analyze data more efficiently? 6. How can formatting techniques enhance your ability to communicate clearly? 7. How can formulas be used to link data across multiple spreadsheets? 	Enduring Understanding(s): Students will understand that... <ul style="list-style-type: none"> • Spreadsheets allow for effective business data analysis and communication. • Spreadsheet features such as formulas, charts, pivot tables, and advanced analysis techniques allow data to be organized and analyzed efficiently. • Spreadsheet formatting techniques enhance the ability to communicate effectively.

PART II: INSTRUCTIONAL STRATEGIES AND RESOURCES

DESCRIBE THE LEARNING TARGETS.

After each target, identify the New Jersey Student Learning Standards that are applicable

<u>Learning Target</u>	<u>NJSLS:</u>
Students will be able to:	9.3.12.BM.1
1. Create, modify, and format spreadsheets to analyze and clearly communicate data.	9.3.12.BM.5 9.3.12.BM-ADM.2
2. Apply formulas, such as IF, SUMIF, SUMIFS, COUNTIF, COUNTIFS, PMT, FV, PV, MAX, MIN, MEDIAN, ROUND, COUNT, COUNTA, NOW, VLOOKUP, HLOOKUP, to analyze data and make informed decisions.	9.3.12.BM-BIM.3 9.3.12.BM-BIM.5 9.3.12.BM-MGT.2
3. Use advanced analysis techniques, such as Nesting formulas, Formulas referencing other worksheets, What-if Analysis, What-if Data Table, Goal Seek, Solver, to analyze data and make informed decisions.	9.3.12.BM-MGT.7 9.3.12.BM-HR.2
4. Organize and efficiently analyze data using sorting and pivot tables.	

5. Create charts to analyze and clearly communicate data
6. Complete a business simulation including formulas, charts, and stock analysis

Inter-Disciplinary Connections:

Math - Formulas & Functions
 Art - Enhancing Excel with Smart Art, Pictures, and Graphics

Students will engage with the following text:

“EXCEL IT!” Business Education Publishing, McGuiness, Martha

Students will write:

Journaling:

Students will write in journal/notebook

1. Steps needed to create and manipulate data in spreadsheets.
2. Reflections on the project that was completed that day, drawing conclusions from questions that are asked.

PART III: TRANSFER OF KNOWLEDGE AND SKILLS

DESCRIBE THE LEARNING EXPERIENCE.

How will students uncover content and build skills.

Projects:

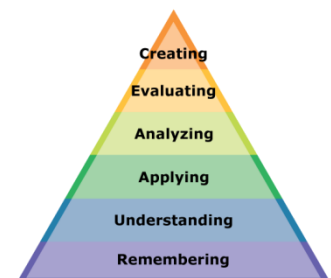
1. Label all parts of an excel screen. Using prior knowledge have the students label as much as they can on the worksheet and then as a class complete the rest of the worksheet on the smartboard.
2. Analyze and communicate sample company data using formulas, charts, pivot tables, and advanced analysis techniques.
3. Business Simulation

Class Activities:

- Teacher generated handouts and assignments
- Smart Board demonstrations
- Teacher modeling

PART IV: EVIDENCE OF LEARNING

IDENTIFY THE METHODS BY WHICH STUDENTS WILL DEMONSTRATE THEIR UNDERSTANDING OF CONTENT AND THEIR ABILITY TO APPLY SKILLS. IDENTIFY BLOOM’S LEVELS.



Formative Assessments:

Daily projects completed and turned in to ensure student understanding and ability to transfer knowledge. Daily class participation and classwork grades.

Summative Assessments:

Projects and tests given after students have completed enough of the daily projects with a level of competence. Graded with a rubric.

Performance Assessment:

Electronic portfolio and project which will require students to analyze information in a spreadsheet to form conclusions.

Accommodations/Modifications:

- Extra time.
- Decrease the amount of information that is needed.
- Use of visual aids.
- Introduce new vocabulary before the lesson and have that vocabulary available for students.
- Provide guided notes when necessary.
- Break long assignments into parts with separate due dates.
- Read directions aloud/reread and explain as needed.
- Reinforce positive behavior.
- Preferential seating.
- Complete sample problems or tasks to model for students.

PART I: UNIT RATIONALE

WHY ARE STUDENTS LEARNING THIS CONTENT AND THESE SKILLS?

<p>Course/Unit Title: Advanced Computer Applications/Database Management</p>	<p>Unit Summary: All students will develop critical thinking and problem-solving skills required to manage data using database software</p>
<p>Grade Level(s): 10-12</p>	
<p>Essential Question(s):</p> <ol style="list-style-type: none"> 1. What is a database? 2. What are the benefits of using a relational database? 3. When and why would you use database instead of spreadsheets to organize data ? 4. How is data organized using tables, records and fields? 5. Why are primary keys used in databases? 6. How are the design and datasheet table views used? 7. Why and how do you establish relationships between data? How do queries help organize and analyze data? 8. How can sorting be used to organize and analyze data more efficiently? 	<p>Enduring Understanding(s): Students will understand that...</p> <ul style="list-style-type: none"> • A database is an organized collection of information about a subject that is stored in a computer system. • A relational database is able to understand how lists and the objects within them relate to one another. • Spreadsheets are great at storing and organizing numbers, while databases are far stronger at handling non-numerical data, like names and descriptions. • Tables, Records, and Fields are used to organize information in a database so that it can be effectively related to other information within the same database. • A Primary Key is the field that uniquely identifies each record in the table and it can be used to link to related information in other tables. • Database features such as view, relationships, sorting, and queries allow data to be organized and analyzed efficiently.

PART II: INSTRUCTIONAL STRATEGIES AND RESOURCES

DESCRIBE THE LEARNING TARGETS.

After each target, identify the New Jersey Student Learning Standards that are applicable

<u>Learning Target</u>	<u>NJSLS:</u>
Students will be able to:	9.3.12.BM.4
1. Describe the features of the access window	9.3.12.BM.5
2. Create and manage a database	9.3.12.BM-ADM.2
3. Create table and add records	9.3.12.BM-ADM.3
4. Create and modify fields	9.3.12.BM-BIM.3
5. Sort and filter records	9.3.12.BM-BIM.4
6. Set relationships using primary keys	9.3.12.BM-MGT.2
7. Enter and format text	9.3.12.BM-HR.2
8. Import data from a single data file	9.3.12.BM-HR.7
9. Create forms and apply form design tab options	

10. Create and manage queries
11. Set input masks

Inter-Disciplinary Connections:

English
Math

Students will engage with the following text:

“ACCESS IT!” Business Education Publishing, McGuiness, Martha

Students will write:

Journaling:

Students will write in journal/notebook

1. Steps needed to create and manipulate data in a database management system
2. Reflections on the project that was completed that day, drawing conclusions from questions that are asked.

PART III: TRANSFER OF KNOWLEDGE AND SKILLS

DESCRIBE THE LEARNING EXPERIENCE.

How will students uncover content and build skills.

Projects:

1. Label all parts of an access screen. Using prior knowledge have the students label as much as they can on the worksheet and then as a class complete the rest of the worksheet on the smartboard.
2. Collaboratively analyze and communicate sample company databases using tables, queries, forms, and input masks.
3. Independently analyze and communicate sample company databases using tables, queries, forms, and input masks.

Class Activities:

- Teacher generated handouts and assignments
- Smart Board demonstrations
- Teacher modeling

PART IV: EVIDENCE OF LEARNING

IDENTIFY THE METHODS BY WHICH STUDENTS WILL DEMONSTRATE THEIR UNDERSTANDING OF CONTENT AND THEIR ABILITY TO APPLY SKILLS. IDENTIFY BLOOM’S LEVELS.



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