



Wolcott Public Schools

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**Computer Applications
High School Curriculum
Grades 9-12**



Children are our Future...

Acknowledgements

Curriculum Writers:

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We acknowledge and celebrate the professionalism, expertise, and diverse perspectives of these teachers. Their contributions to this curriculum enrich the educational experiences of all Wolcott students.

Mr. Frank Purcaro
Director of Curriculum and Professional Development

Date of Presentation to the Board of Education: February 27, 2017

Computer Applications

Computer Applications

Mission Statement:

The mission of the Wolcott Public Schools is to develop in each student the knowledge, skills, and attitudes necessary to become a productive member of the community and a contributing member of society.

Departmental Philosophy:

Wolcott High School's Business Department believes its courses are an integral part of the total academic structure that provides students with competencies to be competitive in a business-oriented society. The mission of this program is to ensure that students have the opportunity to develop skills, knowledge, understanding and attitudes necessary for successful participation in postsecondary education and the global economy.

Course Description:

Computer Applications will introduce students to the computer as a tool for problem solving and information processing. The course includes an introduction/review of Word, Excel, PowerPoint, Access and other business applications.

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Content Standard 1: Creativity and Innovation

<i>Performance Standards</i>	<i>Sample Activities</i>	<i>Assessment Strategies</i>	<i>Resources</i>
<p><u>National Educational Technology Standards:</u></p> <ul style="list-style-type: none"> - 1: Students demonstrate creative thinking, construct knowledge and develop innovative products and processes using technology. - 1a: Apply existing knowledge to generate new ideas, products, or processes. - 1b: Create original works as a means of personal or group expression. - 1c: Use models and simulations to explore complex systems and issues. - 1d: Identify trends and forecast possibilities. <p><u>Computer Technology Competency Standards for Students:</u></p> <ul style="list-style-type: none"> - 1a: Students use technology tools to enhance learning, increase productivity, and promote creativity. - 1b: Students use productivity tools to collaborate in constructing technology-enhanced models, preparing publications, and producing other creative works. 	<ul style="list-style-type: none"> - Create a “How-to” Guide – Students will create “How-to” Guides that explain how to perform various tasks on Microsoft Word, PowerPoint and Excel. For example, they might describe how to input a formula into an Excel spreadsheet, develop a table of contents or bibliography page on Word or describe the process of imbedding a music file or video into a PowerPoint presentation. - Create a Memo – Students will learn the correct formatting necessary to write a memo, along with the proper language that needs to be utilized. - Business Letter - Creation/Development – The students will be exposed to the different types and styles of Business Letters that exist. They will learn the proper formatting, will develop a mock Business Letter for a company of their choice and will critique their peers’ work in a respectable manner. - Formula Creation (Excel) – Students will look at many different formulas that are embedded in the Microsoft Excel program. They will also learn how to manually develop formulas on the program that will meet their needs. 	<ul style="list-style-type: none"> - Individual Classwork - Guided Practice - Group Assignments - Portfolio Projects - <i>Reading Check</i> Questions - Chapter Exercises - <i>Skill Builder</i> Assignments - <i>End of Lesson</i> Assessment Questions/Activities - <i>Academic Connection</i> Activities - Case Studies/Reading Assignments 	<ul style="list-style-type: none"> - <i>ICheck Series: Microsoft Office 2010</i> Online Textbook and Supplemental Materials - Microsoft Office Suite (Word, Excel, PowerPoint, Publisher, Access) - Web browsers/Internet - Google Programs/Applications {Docs, Sheets, Slides } (When and where applicable)

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	<p>- PowerPoint Presentation of a Fictitious Fundraiser – The students will be tasked with developing a PowerPoint Presentation for a fictitious fundraiser. They will need to come up with an organization that is running the fundraiser, identify the purpose of the fundraiser and what the funds will be used for and also describe the event and its location, etc.</p>		
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Content Standard 2: Communication and Collaboration

<i>Performance Standards</i>	<i>Sample Activities</i>	<i>Assessment Strategies</i>	<i>Resources</i>
<p><u>National Educational Technology Standards:</u></p> <ul style="list-style-type: none"> - 2: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. - 2a: Interact, collaborate, and publish with peers, experts or others employing a variety of digital environments and media. - 2b: Communicate information and ideas effectively to multiple audiences using a variety of media and formats. - 2c: Develop cultural understanding and global awareness by engaging with learners of other cultures. - 2d: Contribute to project teams to produce original works or solve problems. <p><u>Computer Technology Competency Standards for Students:</u></p> <ul style="list-style-type: none"> - 2a: Students use telecommunications to collaborate. Publish, and interact with peers, experts, and other audiences. 	<ul style="list-style-type: none"> - Business Letter Assignment - The students will be exposed to the different types and styles of Business Letters that exist. They will learn the proper formatting, will develop a mock Business Letter for a company of their choosing, and will critique their peers' work in a respectable manner. - Resume/Cover Letter Development – Students will be tasked with creating a resume and cover letter for a career that they are interested in. This will require the students to identify the type of educational requirements they will need to attain that job, as well as the types of skills required to successful work in that field. Also, this activity will provide the students with some practice when it comes to properly formatting these important documents that they will need to develop for success in the future. - Town Hall Collaboration PowerPoint Presentation – This project is aimed at helping students develop a PowerPoint presentation that requires them to support a specific point of view. The students will need to decide if a factious town should keep its dog park open or close it to build a new facility. The students will need to decide whether they are for or against closing 	<ul style="list-style-type: none"> - Individual Classwork - Guided Practice - Group Assignments - Portfolio Projects - <i>Reading Check</i> Questions - Chapter Exercises - <i>Skill Builder</i> Assignments - <i>End of Lesson</i> Assessment Questions/Activities - <i>Academic Connection</i> Activities - Case Studies/Reading Assignments 	<ul style="list-style-type: none"> - <i>ICheck Series: Microsoft Office 2010</i> Online Textbook and Supplemental Materials - Microsoft Office Suite (Word, Excel, PowerPoint, Publisher, Access) - Web browsers/Internet - Google Programs/Applications {Docs, Sheets, Slides } (When and where applicable)

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<p>- 2b: Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.</p>	<p>the dog park, list alternative courses of actions and express their opinions/views in a professional manner.</p> <p>- Benefits and functions of each Microsoft Office program described (Typed in Word Document) – Students will write about the benefits and functions of Word, PowerPoint and Excel when we conclude the instruction of each program. The students will identify why an individual would use the program, interesting functions that they were unaware of and how they will take the information they learned and apply to other subjects in school.</p> <p>- <i>21st Century Workplace</i> Collaborative Assignments (Across multiple programs) – Throughout the <i>Microsoft Office</i> textbook, there are a number of <i>21st Century Workplace</i> assignments that the students will complete. The skills discussed in these assignments include collaboration, interview skills, reliability, problem-solving and communicating effectively. The students will read about these topics and will complete “Skill Builder” questions that will reinforce the information they previously read and apply that information to personal experiences.</p>		
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Content Standard 3: Research and Information Fluency

<i>Performance Standards</i>	<i>Sample Activities</i>	<i>Assessment Strategies</i>	<i>Resources</i>
<p><u>National Educational Technology Standards:</u></p> <ul style="list-style-type: none"> - 3: Students apply digital tools to gather, evaluate, and use information. - 3a: Plan strategies to guide inquiry. - 3b: Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media. - 3c: Evaluate and select information sources and digital tools based on the appropriateness to specific tasks. - 3d: Process data and report results. <p><u>Computer Technology Competency Standards for Students:</u></p> <ul style="list-style-type: none"> - 3a: Students use technology to locate, evaluate, and collect information from a variety of sources. - 3b: Students use technology tools to process data and report results. - 3c: Students evaluate and select new information resources and technological innovations based on the appropriateness to specific tasks. 	<ul style="list-style-type: none"> - Career Research Assignment - The students will take several interest inventories that will provide the students with some career fields that match their interests and skills. This activity helps expose the students to careers they never considered or careers they never knew existed, as well as require the students to do some exploratory research about different careers. - Research Templates available across Microsoft Office Platform – The students will be required to experiment with the different templates that are included in the Microsoft Office Suite and see what types of templates will be beneficial to different careers and individuals. Also, the students will search online for templates that are available through Microsoft’s website that are both safe and reliable to use. - Copyrights, Trademark, and Patent Research Project – The students will be asked to research the different between a Copyright, Trademark and Patent. They will need to develop a PowerPoint Presentation that explains the differences between them, as well as include examples of each. 	<ul style="list-style-type: none"> - Individual Classwork - Guided Practice - Group Assignments - Portfolio Projects - <i>Reading Check</i> Questions - Chapter Exercises - <i>Skill Builder</i> Assignments - <i>End of Lesson</i> Assessment Questions/Activities - <i>Academic Connection</i> Activities - Case Studies/Reading Assignments 	<ul style="list-style-type: none"> - <i>ICheck Series: Microsoft Office 2010</i> Online Textbook and Supplemental Materials - Microsoft Office Suite (Word, Excel, PowerPoint, Publisher, Access) - Web browsers/Internet - Google Programs/Applications {Docs, Sheets, Slides} (When and where applicable)

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	<p>- Various Internet Research Activities (Utilizing Internet Research Skills and Databases) – Periodically throughout the course, the students will view short videos explaining effective internet research practices and strategies, as well as videos on correctly utilizing databases to gain information. The students will write either an essay or complete a series of “Internet Scavenger Hunts” that will require the students to use the strategies presented in the videos and during classroom lecture.</p>		
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Content Standard 4: Critical Thinking, Problem-Solving, and Decision-Making

<i>Performance Standards</i>	<i>Sample Activities</i>	<i>Assessment Strategies</i>	<i>Resources</i>
<p><u>National Educational Technology Standards:</u></p> <ul style="list-style-type: none"> - 4: Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. - 4a: Identify and define authentic problems and significant questions for investigation. - 4b: Plan and manage activities to develop a solution or complete a project. - 4c: Collect and analyze data to identify solutions and/or make informed decisions. - 4d: Use multiple processes and diverse perspectives to explore alternative solutions. <p><u>Computer Technology Competency Standards for Students:</u></p> <ul style="list-style-type: none"> - 4a: Students use technology resources for solving problems and making informed decisions. - 4b: Students employ technology in the development of strategies for 	<ul style="list-style-type: none"> - 21st Century Skills Activities (Across multiple programs) - Throughout the <i>Microsoft Office</i> textbook, there are a number of <i>21st Century Workplace</i> assignments that the students will complete. The skills discussed in these assignments include collaboration, interview skills, reliability, problem-solving, and communicating effectively. The students will read about these topics and will complete “Skill Builder” questions that will reinforce the information they previously read and apply that information to personal experiences - Math/Science Problem Solving Activities (specifically utilizing appropriate formulas in Excel) – Excel is a very powerful tool that can be utilized by many different people for a variety of different purposes. The students will learn and utilize mathematical and scientific formulas that are contained within the program, as well as learn how to implement charts and other graphics to enhance and provide visual representation of the content they are working with. - Academic Connection Activities utilizing various Microsoft Office programs – The programs included 	<ul style="list-style-type: none"> - Individual Classwork - Guided Practice - Group Assignments - Portfolio Projects - <i>Reading Check</i> Questions - Chapter Exercises - <i>Skill Builder</i> Assignments - <i>End of Lesson</i> Assessment Questions/Activities - <i>Academic Connection</i> Activities - Case Studies/Reading Assignments 	<ul style="list-style-type: none"> - <i>ICheck Series: Microsoft Office 2010</i> Online Textbook and Supplemental Materials - Microsoft Office Suite (Word, Excel, PowerPoint, Publisher, Access) - Web browsers/Internet - Google Programs/Applications {Docs, Sheets, Slides} (When and where applicable)

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solving problems in the real world.

within the Microsoft Office Suite can benefit and assist students in all of their academic courses. Throughout the course, we will discuss different “arenas” the students can take the information they are learning and apply it towards.

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Content Standard 5: Digital Citizenship

<i>Performance Standards</i>	<i>Sample Activities</i>	<i>Assessment Strategies</i>	<i>Resources</i>
<p><u>National Educational Technology Standards:</u></p> <ul style="list-style-type: none"> - 5: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. - 5a: Advocate and practice safe, legal, and responsible use of information and technology. - 5b: Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity. - 5c: Demonstrate personal responsibility for lifelong learning. - 5d: Exhibit leadership for digital citizenship. <p><u>Computer Technology Competency Standards for Students:</u></p> <ul style="list-style-type: none"> - 5a: Students understand the ethical, cultural, and societal issues related to technology. - 5b: Students practice responsible use of technology systems, information, and software. 	<ul style="list-style-type: none"> - Code of Conduct/Ethics Development Group Activity – The students will work in small groups and review the codes of conduct for Wolcott High School and a business of their choosing. The students will identify changes they would like to see made, explain why certain items in the code of ethics may be seen as ethical/unethical and allow them to work collaboratively. - Student Computer Usage Agreement Redevelopment Activity – The students at Wolcott High School all sign a Computer Usage Agreement form before they are allowed access to the computers. This assignment has the students review the agreement and redevelop it, keeping in mind that technology continuously changes and some items they include may be obsolete in a short period of time. They also need to remember that privacy and proper conduct must be addressed. - Research Assignment on Unethical Business Practices that have occurred in our society – The students will be tasked with researching an unethical business practice that has occurred in our society (i.e. Enron Scandal) and either write an essay on their findings 	<ul style="list-style-type: none"> - Individual Classwork - Guided Practice - Group Assignments - Portfolio Projects - <i>Reading Check</i> Questions - Chapter Exercises - <i>Skill Builder</i> Assignments - <i>End of Lesson</i> Assessment Questions/Activities - <i>Academic Connection</i> Activities - Case Studies/Reading Assignments 	<ul style="list-style-type: none"> - <i>ICheck Series: Microsoft Office 2010</i> Online Textbook and Supplemental Materials - Microsoft Office Suite (Word, Excel, PowerPoint, Publisher, Access) - Web browsers/Internet - Google Programs/Applications {Docs, Sheets, Slides} (When and where applicable)

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- 5c: Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.

or develop a presentation that explains their findings. This allows the students to gain a deeper understanding of ethics in our society, practice effectively researching the topic of ethics and differentiates instruction by allowing the students to utilize whichever program they feel will provide them the best platform to explain their findings.

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Content Standard 6: Technology Operations and Concepts

<i>Performance Standards</i>	<i>Sample Activities</i>	<i>Assessment Strategies</i>	<i>Resources</i>
<p><u>National Educational Technology Standards:</u></p> <ul style="list-style-type: none"> - 6: Students demonstrate a sound understanding of technology concepts, systems and operations. - 6a: Understand and use technology systems. - 6b: Select and use applications effectively and productively. - 6c: Troubleshoot systems and applications. - 6d: Transfer current knowledge to learning of new technologies. <p><u>Computer Technology Competency Standards for Students:</u></p> <ul style="list-style-type: none"> - 6a: Students demonstrate a sound understanding of the nature and operation of technology systems. - 6b: Students are proficient in the use of technology. 	<ul style="list-style-type: none"> - Utilization of “Help” menu to solve issues or troubleshoot difficulties within Microsoft Office & discussion of their findings in a word processing document – Within each Microsoft Office program, there is a Help menu. This menu allows users to type in questions or view frequently asked questions about different topics. Periodically, I will ask the students to think of questions they have about each program and go through the process of using the Help feature. The students will describe the process in a Word document and present additional information they discovered through the search. - Written assignment regarding troubleshooting issues for each program of Microsoft Office – Similar to the “How-to” guide, the students will be asked to develop short guides that will help individuals troubleshoot basic issues that may occur (i.e. a formula not calculating correctly, a formatting error that keeps occurring when inserting bullet points into a Word document, etc.). This is a great way to assess the level of understanding the student possess and allows the students to exhibit their ability to problem solve. 	<ul style="list-style-type: none"> - Individual Classwork - Guided Practice - Group Assignments - Portfolio Projects - <i>Reading Check</i> Questions - Chapter Exercises - <i>Skill Builder</i> Assignments - <i>End of Lesson</i> Assessment Questions/Activities - <i>Academic Connection</i> Activities - Case Studies/Reading Assignments 	<ul style="list-style-type: none"> - <i>ICheck Series: Microsoft Office 2010</i> Online Textbook and Supplemental Materials - Microsoft Office Suite (Word, Excel, PowerPoint, Publisher, Access) - Web browsers/Internet - Google Programs/Applications {Docs, Sheets, Slides} (When and where applicable)

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Pacing Guide (Tentative)

SEMESTER 1

September: Unit 1, Lessons 1-4

October: Unit 1, Lessons 5-6 & Portfolio Project; Unit 2, Lessons 1-2

November: Unit 2, Lessons 3-5 & Portfolio Project; Unit 3, Lessons 1-3

December: Unit 3, Lessons 4-5 & Portfolio Project; Unit 4, Lessons 1-2

January: Unit 4, Lessons 3-4 & Portfolio Project

SEMESTER 2

January: Unit 1, Lesson 1

February: Unit 1, Lessons 3-6 & Portfolio Project

March: Unit 2, Lessons 1-5 & Portfolio Project

April: Unit 3, Lessons 1-4

May: Unit 3, Lesson 5 & Portfolio Project; Unit 4, Lessons 1-3

June: Unit 4, Lesson 4 & Portfolio Project

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Essential Questions

1. What benefits will you derive from using Word, Excel, and PowerPoint in college and your career?
2. What computer applications will be important for the future, in college and your career?
3. What are the correct formats for business documents (i.e. cover letter, resume, memo, time sheet)?
4. Do you understand the legal and ethical behaviors required, as well as the consequences for misuse, when using technology?
5. How do you use appropriate language when communicating with diverse audiences utilizing computer and information literacy??
6. How do you use the Internet effectively to identify new technologies and discover other organizational tools?
7. Why is it important to utilize problem-solving, critical thinking, and decision-making skills when working with technology and computer applications?
8. How can the computer, and the technology associated with it be utilized as a tool to improve your life?

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Skills Objectives

Students will be able to:

1. Create multi-page documents utilizing word processing software, along with other tools, to demonstrate their ability to format, edit, and print.
2. Create business documents (resumes, cover letters, memos, etc.) using professional formatting.
3. Construct spreadsheets, enter data, use functions or formulas to process data, create graphs & charts and interpret the information.
4. Produce multimedia projects that include text, graphics, transitions, moving images and sounds that appeal to various audiences.
5. Exhibit legal and ethical behaviors when using technology, as well as understand the consequences of misuse.
6. Use appropriate language when communicating with diverse audiences using computer and information literacy.
7. Select and use databases for advanced research assignments.
8. Create and manipulate information, either independently or collaboratively, to solve a problem or present findings.
9. Integrate new information into their existing knowledge base and exhibit their growth via projects or presentations.
10. Produce and edit page layouts in different formats using desktop publishing software. (*IF TIME ALLOWS FOR PUBLISHER TO BE COVERED*)

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Assessments

Assessments are aligned with the subject material and are done routinely throughout the year. They are completed by the Applied Education Department Data Team and will be added to the Curriculum as they are finalized.