



Pine Grove Area

SCHOOL DISTRICT

Business, Computer, and Information Technology

Computer Applications

September 18, 2008

I. PHILOSOPHY

The Computer Applications course of the Pine Grove Area School District has been structured to introduce, systematically and thematically, four computer application systems in Microsoft Office: Microsoft Word, Excel, Access, and PowerPoint. The students will also assess the impact technology has on society, input technologies, as well as, investigate ethical and legal issues associated with technology. The Computer Applications course begins the process at the introductory level. The course will allow for the accommodation of many learning styles, motivational levels, and academic abilities.

II. CORE CONCEPTS

1. Impact on Society – To identify and discuss how technology is being used in our personal lives, in school, and in the workplace.
2. Hardware – To identify and utilize various hardware components.
3. Input Technologies – To identify and utilize various input devices.
4. Productivity Software – To select and apply productivity software appropriate for specific tasks.
5. Interactive Multimedia – To utilize multimedia software for presentations and projects.
6. Database Management Systems – To create databases and complete reports, queries, and forms for various situations.
7. Ethical and Legal Issues – To discuss appropriate use of technology in the classroom.
8. Information Technology Careers – To discuss various opportunities for future employment in the technology industry.

III. COURSE OF STUDY

A. Course Name: Computer Applications

B. Grade Level: 9

C. Length of Course: One Semester

1. Frequency: Daily

2. Duration: 42 Minutes Per Class

D. Academic Level: Post Secondary

E. Credits: 0.5

F. Prerequisites: None

G. Course Description: The class uses Microsoft Office products to discover the four basic applications used in the work world today. We will utilize Microsoft Word to do word processing; Excel to create spreadsheets and charts; PowerPoint to create presentations; and Access to create databases. This course will also utilize the Internet and reinforce computer literacy skills such as keyboarding and proofreading. Students will learn the proper procedures to create professional quality publications suitable for course work, professional purposes, and personal use.

IV. CONTENT: Computer Applications

CORE CONCEPT 1: Impact on Society

MAJOR OBJECTIVE: To identify and discuss how technology is being used in our personal lives, in school, and in the workplace.

| CURRICULUM STANDARD: | | | |
|--|---|--|---|
| National Business Education Standard/Student Expectation | Specific Content | Assessments | Resources/Materials |
| <p>NBEA Standard I Assess the impact of information technology in a global society.</p> | <p>Teacher will guide students to:</p> <p>Identify uses of information technology in the home, school, workplace, and global society.</p> <p>Describe the impact of technology on the knowledge and skills needed for success in the workplace.</p> <p>Evaluate how information technology transforms business processes and relationships.</p> <p>Identify and evaluate how information technology developments changes the way humans do their work.</p> <p>Utilize information technology skills in today’s learning environment.</p> <p>Apply information technology skills to lifelong learning.</p> | <p>Teacher evaluation of:</p> <p>Whole class discussion</p> <p>Oral question and answer</p> <p>Individuals during small group activity</p> | <p>Instructor generated resources</p> <p>Handouts</p> <p>Graphic Organizers</p> |

CONTENT: Computer Applications

CORE CONCEPT 2: Hardware

MAJOR OBJECTIVE: To identify and utilize various hardware components

| CURRICULUM STANDARD: | | | |
|--|---|---|--|
| National Business Education Standard/Student Expectation | Specific Content | Assessments | Resources/Materials |
| NBEA Standard II Describe current and emerging hardware; configure, install, and upgrade hardware; diagnose problems; and repair hardware. | Teacher will guide students to: Identify components of hardware Identify and use appropriate help resources for hardware (e.g., help desk, online help, and manuals). Compare and contrast various storage options (e.g., local, removable, remote). Describe interrelationships between hardware components and supportive software. | Teacher evaluation of: Whole class discussion Oral question and answer Individuals during small group activity | Instructor generated resources Handouts Graphic Organizers Library/AV resources Online resources |

CONTENT: Computer Applications

CORE CONCEPT 3: Input Technologies

MAJOR OBJECTIVE: To identify and utilize various input devices

| CURRICULUM STANDARD: | | | |
|--|---|--|--|
| National Business Education Standard/Student Expectation | Specific Content | Assessments | Resources/Materials |
| NBEA Standard IV Use various input technologies to enter and manipulate information appropriately. | Teacher will guide students to: Reinforce proper input techniques. Describe ergonomic issues related to input technologies. Select appropriate input technology to optimize performance. Optimize academic and workplace performance using a variety of input technologies. Compose documents using a variety of input technologies, including mouse, keyboard, keypad, speakers, microphone, etc. | Teacher evaluation of: Whole class discussion Oral question and answer Student performance Teacher observation Independent activities Quizzes Tests | Instructor generated resources Handouts Textbooks Microsoft Office software Library/AV resources Supplemental materials Online resources |

CONTENT: Computer Applications

CORE CONCEPT 4: Productivity Software

MAJOR OBJECTIVE: To select and apply productivity software appropriate for specific tasks.

CURRICULUM STANDARD:

| National Business Education Standard/Student Expectation | Specific Content | Assessments | Resources/Materials |
|---|--|---|---|
| <p>NBEA Standard V Identify, evaluate, select, install, use, upgrade, and customize productivity software; diagnose and solve software problems.</p> | <p>Teacher will guide students to:</p> <p>Identify productivity software appropriate for specific tasks.</p> <p>Use productivity software to create documents, research topics, and take notes, categorize data, and perform calculations to improve academic achievement across the curriculum.</p> <p>Select and apply the appropriate productivity software to complete tasks.</p> <p>Produce various word documents i.e. letters, memos, reports, tables, outlines, and etc.</p> <p>Produce various spreadsheets adding formulas, charts, and images.</p> <p>Create projects collaboratively.</p> <p>Use the collaborative features of productivity software to accomplish organizational tasks.</p> | <p>Teacher evaluation of:</p> <p>Whole class discussion</p> <p>Oral question and answer</p> <p>Student performance</p> <p>Teacher observation</p> <p>Independent activities</p> <p>Individual or group projects</p> <p>Quizzes</p> <p>Tests</p> | <p>Instructor generated resources</p> <p>Handouts</p> <p>Textbooks</p> <p>Microsoft Office software</p> <p>Library/AV resources</p> <p>Supplemental materials</p> <p>Online resources</p> |

CONTENT: Computer Applications

CORE CONCEPT 5: Interactive Multimedia

MAJOR OBJECTIVE: To utilize multimedia software for presentations and projects.

| CURRICULUM STANDARD: | | | |
|---|---|---|--|
| National Business Education Standard/Student Expectation | Specific Content | Assessments | Resources/Materials |
| NBEA Standard VI Use multimedia software to create media rich projects. | Teacher will guide students to: Select and apply multimedia software appropriate for specific tasks. Use multimedia software to create project to enhance academic achievement across the curriculum. Produce multimedia presentations i.e. outlines, slides, handouts, and oral presentations. Create multimedia projects collaboratively. Create multimedia content and prepare it for delivery. | Teacher evaluation of: Whole class discussion Oral question and answer Student performance Teacher observation Independent and group activities/projects Quizzes Tests | Instructor generated resources Handouts Textbooks Microsoft Office software Library/AV resources Supplemental materials Online resources |

CONTENT: Computer Applications

CORE CONCEPT 6: Database Management Systems

MAJOR OBJECTIVE: To create databases and complete reports, queries, and forms for various situations.

CURRICULUM STANDARD:

| National Business Education Standard/Student Expectation | Specific Content | Assessments | Resources/Materials |
|--|---|---|--|
| NBEA Standard IX Use, plan, develop, and maintain database management systems. | Teacher will guide students to: Retrieve and use information from a database. Define basic database terminology, including but not limited to, enter, run, fields, sort, retrieve, query, and organize. Identify the appropriate type of database for a particular situation. Enter data and edit fields and records. Sort, prioritize, and retrieve data from databases. Extract useful information using search queries. Organize and present the results of data retrieval through reports. | Teacher evaluation of: Whole class discussion Oral question and answer Student performance Teacher observation Independent or group activities Quizzes Tests | Instructor generated resources Handouts Textbooks Microsoft Office software Library/AV resources Supplemental materials Online resources |

CONTENT: Computer Applications

CORE CONCEPT 7: Ethical and Legal Issues

MAJOR OBJECTIVE: To discuss appropriate use of technology in the classroom.

| CURRICULUM STANDARD: | | | |
|--|--|--|--|
| National Business Education Standard/Student Expectation | Specific Content | Assessments | Resources/Materials |
| NBEA Standard XV Describe, analyze, develop, and follow policies for managing ethical and legal issues in organizations and in a technology-based society. | Teacher will guide students to: Discuss basic issues related to responsible use of technology and describe personal or legal consequences of inappropriate use. Examine the consequences of illegal and unethical use of information technologies. Explain plagiarism and its consequences. | Teacher evaluation of: Whole class discussion Oral question and answer Student performance Teacher observation Independent activities | Instructor generated resources Handouts Textbooks Microsoft Office software Library/AV resources Supplemental materials Online resources |

CONTENT: Computer Applications

CORE CONCEPT 8: Information Technology Careers

MAJOR OBJECTIVE: To discuss various opportunities for future employment in the technology industry.

| CURRICULUM STANDARD: | | | |
|---|--|---|--|
| National Business Education Standard/Student Expectation | Specific Content | Assessments | Resources/Materials |
| NBEA Standard XVIII Explore positions and career paths in information technology. | Teacher will guide students to: Identify information technologies commonly used in all careers Compare/contrast the impact of information technology on variety of career paths. Identify common tasks performed by information technology workers. Describe the impact of technological change on information technology positions and the resulting need for lifelong learning and retraining. | Teacher evaluation of: Whole class discussion Oral question and answer Individuals during small group activity | Instructor generated resources Handouts Graphic Organizers |

V. EXPECTED LEVELS OF ACHIEVEMENT

A. Students are expected to demonstrate a level of mastery in the Computer Applications course. These skills include all of those noted in the specific content area of this curriculum.

B. Grading system for Computer Applications classes is as follows:

| GRADING SCALE | |
|----------------------|---|
| 90 – 100 | A |
| 80 – 89 | B |
| 70 – 79 | C |
| 60 – 69 | D |
| 50 – BELOW | F |

C. Each student’s grade will be determined at the conclusion of each marking period.