

Computer Technology
Computer Literacy
(First Reading 4/15/11)

This course is designed to improve student use and understanding of information age technology. Mastering the standards will enable students to learn about and effectively access and use technology resources. Students will use a variety of computer applications and tools and will explore the social, historical and ethical implications of using computer technology. It is expected that every student will demonstrate proficiency using these standards by the time the student completes high school. These standards can be met through this course or activities incorporated into other curriculum areas. (Alternatively, students may demonstrate mastery of these standards as a result of grades K-8 technology experiences.) The course is designed so that it may be taught with a minimum number of computers.

Recommended Prerequisite: none

Recommended Grades: 9, 10

Recommended Credit: 1 Credit

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Standard 1.0

The student will develop and apply concepts related to human relations, safety, career development, communications, and leadership skills for a global workplace.

Standard 2.0

Students will understand basic operations and concepts of technology.

Standard 3.0

Students will understand the importance of social, ethical, and human issues associated with technology.

Standard 4.0

Students will use technology productivity tools.

Standard 5.0

Students will use technology communications tools.

Standard 6.0

Students will select and use appropriate technology research tools.

Standard 7.0

Students will utilize technology problem-solving and decision-making tools.

Course Description

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Standard 1.0

The student will develop and apply concepts related to human relations, safety, career development, communications, and leadership skills for a global workplace.

Learning Expectations

The student will:

- 1.1 Demonstrate sensitivity to personal, societal, corporate, and governmental responsibility to community and global issues.
- 1.2 Demonstrate the interpersonal, teamwork, and leadership skills needed to function in diverse business settings, including the global marketplace.
- 1.3 Communicate effectively as writers, listeners, and speakers in diverse social and business settings.
- 1.4 Apply the critical-thinking and soft skills needed to function in students' multiple roles as citizens, consumers, workers, managers, business owners, and directors of their own futures.
- 1.5 Analyze and follow policies for managing legal and ethical issues in organizations and in a technology-based society.
- 1.6 Investigate the life-long learning skills that foster flexible career paths and confidence in adapting to a workplace that demands constant retooling.

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- 1.7 Assess personal skills, abilities, aptitudes, and personal strengths and weaknesses as they relate to career exploration and apply knowledge gained from individual assessment to research and develop an individual career plan.
- 1.8 Examine the goals and principles of a professional organization. (Ex. Computer Science Club, BETA Club, FBLA)
- 1.9 Investigates online and office safety procedures and passes a written safety examination with 100% accuracy.
- 1.10 Demonstrates parliamentary procedure through office staff/chapter organizational meetings.
- 1.11 Apply appropriate typography concepts to industry documents.

Student Performance Indicator: Evidence Standard Is Met

The student:

- Develops a presentation, applying typography guidelines, that illustrates ethical and legal behavior in written and spoken portions of the presentation, and recognizes the implications of violating federal and state laws related to the use of technology and copyrighted materials.
- Models and role-plays examples of behavioral expectations in the workplace, including soft skills and team building.
- Demonstrates skills necessary for safety and environmental protection in the workplace and passes a written safety exam with 100% accuracy.
- Develops a presentation, applying typography guidelines illustrating ethical behavior in what are written, spoken or presented and legal issues recognizing the implications of violating federal and state laws including the use of technology and copyrighted materials.
- Illustrates modeling and role playing of examples of behavioral expectations in the workplace including soft skills and team building.
- Demonstrates parliamentary procedure through office staff/chapter organizational meetings.
- Participates in professional development leadership activities.
 - Creates a design and lays out a membership brochure to promote membership.
 - Creates a design and lays out a flyer to promote the local activities of the charitable organization such as the Red Cross.
- Demonstrates progress toward developing skills and behaviors through portfolios and reflection.

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Sample Performance Task

- Design and produce a team project on legal and ethical issues that includes issues and penalties for plagiarism, copied text that does not require permission, and copied data that requires permission and the process used in obtaining permission. Obtain formal permission for use of quotations, art form, design, music, and photographs. Develop and present a total team project utilizing various technology components and appropriate typography concepts.
- Use the Internet to research health and safety issues in a computer work environment.
- Compose and assemble a safety manual using appropriate typography concepts. Develop a presentation on right-to-know laws and any other laws required for safety.

Standard 2.0

Students will understand basic operations and concepts of technology

Learning Expectations

- 2.1 Students demonstrate a sound understanding of the nature and operation of technology systems.
- 2.2 Students are proficient in the use of technology.

Performance Indicators

All students should have opportunities to demonstrate the following performances. Prior to completion of Grade 12 students will:

- Make informed choices among technology systems, resources, and services.

Sample Performance Task

- Using the internet, students will research various technology systems, resources and services as they relate to computer usage and prepare a presentation on the research.

Standard 2.0

Students will understand the importance of social, ethical, and human issues associated with technology.

Learning Expectations

- 3.1 Students understand the ethical, cultural, and societal issues related to technology.
- 3.2 Students practice responsible use of technology systems, information, and software.
- 3.3 Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.

Performance Indicators

All students should have opportunities to demonstrate the following performances. Prior to completion of Grade 12 students will:

- Identify capabilities and limitations of contemporary and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning, and workplace needs.
- Analyze advantages and disadvantages of widespread use and reliance on technology in the workplace and in society as a whole.
- Make informed choices among technology systems, resources, and services.
- Demonstrate and advocate for legal and ethical behaviors among peers, family, and community regarding the use of technology and information.

Sample Performance Task

Students will investigate current copyright laws as they relate to electronic media and report the findings.

Standard 4.0

Students will use technology productivity tools.

Learning Expectations

- 4.1 Students use technology tools to enhance learning, increase productivity, and promote creativity.
- 4.2 Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.

Performance Indicators

All students should have opportunities to demonstrate the following performances. Prior to completion of Grade 12 students will:

- Use technology tools and resources for managing and communicating personal/professional information (e.g., finances, schedules, addresses, purchases, correspondence).
- Investigate and apply expert systems, intelligent agents, and simulations in real-world situations

Sample Performance Task

Students will develop a portfolio of word processing, database, spreadsheet, graphics, and other software application samples of their work.

Standard 5.0

Students will use technology communications tools.

Learning Expectations

The students will:

- 5.1 Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.
- 5.2 Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.

Student Performance Indicators: Evidence Standard is Met

The student:

All students should have opportunities to demonstrate the following performances. Prior to completion of Grade 12 students will:

- Use technology tools and resources for managing and communicating personal/professional information (e.g., finances, schedules, addresses, purchases, correspondence).
- Routinely and efficiently use online information resources to meet needs for collaboration, research, publication, communication, and productivity.
- Select and apply technology tools for research, information analysis, problem solving, and decision making in content learning.
- Collaborate with peers, experts, and others to contribute to a content-related knowledge base by using technology to compile, synthesize, produce, and disseminate information, models, and other creative works.

Sample Performance Task

Organize students into small workgroups. Have each workgroup brainstorm and debate the pros and cons of the use of electronic media as it relates to legal and ethical responsibilities.

Standard 6.0

Students will select and use appropriate technology research tools.

Learning Expectations

- 6.1 Students use technology to locate, evaluate, and collect information from a variety of sources.
- 6.2 Students use technology tools to process data and report results.
- 6.3 Students evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.

Performance Indicators

All students should have opportunities to demonstrate the following performances. Prior to completion of Grade 12 students will:

- Evaluate technology-based options, including distance and distributed education, for lifelong learning.
- Routinely and efficiently use online information resources to meet needs for collaboration, research, publication, communication, and productivity.
- Select and apply technology tools for research, information analysis, problem solving, and decision making in content learning.
- Investigate and apply expert systems, intelligent agents, and simulations in real-world situations.
- Collaborate with peers, experts, and others to contribute to a content-related knowledge base by using technology to compile, synthesize, produce, and disseminate information, models, and other creative works.

Sample Performance Task

- Given a problem the student will choose the appropriate electronic method for using research to solve the problem.

Standard 7.0

Students will utilize technology problem-solving and decision-making tools.

Learning Expectations

- 7.1 Students use technology resources for solving problems and making informed decisions.
- 7.2 Students employ technology in the development of strategies for solving problems in the real world.

Performance Indicators

All students should have opportunities to demonstrate the following performances. Prior to completion of Grade 12 students will:

- Routinely and efficiently use online information resources to meet needs for collaboration, research, publication, communication, and productivity.
- Investigate and apply expert systems, intelligent agents, and simulations in real-world situations.
- Collaborate with peers, experts, and others to contribute to a content-related knowledge base by using technology to compile, synthesize, produce, and disseminate information, models, and other creative works.

Sample Performance Task

- Student will use electronic media to research, solve and present the solution to a given problem.