

Course Title:	Introduction to Technology in Education
Course Description:	This course introduces educators to the knowledge and skills required to demonstrate their proficiency in the current technology standards. The course focuses on both knowledge and performance, and includes hands-on technology activities.
Semester Credit Hours:	3 credits, 3 lecture/0 lab or 2 lecture/2 lab
Prerequisites:	Keyboarding; basic skill in word processing, spreadsheet, and database programs; or consent of instructor

Course Objectives/Standards

based on the Illinois Core Technology Standards

There are three levels that correspond to the standards/indicators identified below:

- Partially Introduced: Concepts/materials are partially covered at a beginning level of knowledge and/or skill.
- Introduced: Concepts/materials are covered at a beginning level of knowledge and/or skill.
- Met: Concepts/materials are covered at a proficient level of knowledge and/or skill.

Upon successful completion of this course, the candidate will be able to:

Knowledge Objectives

- Install and run computer software; access, generate and manipulate data; and publish results (Core Technology: 1A – Met)
- Use technology to communicate and collaborate with colleagues, conduct research, and solve problems (Core Technology: 2A – Partially Introduced)
- Identify how to apply learning technologies that support instruction (Core Technology: 3A – Introduced)
- Discuss the social, ethical, and human issues related to computing and technology (Core Technology: 4A – Partially Introduced)
- Access telecommunications resources to support instruction (Core Technology: 6A – Introduced)
- Use computers and other technologies in research, problem solving, and product development (Core Technology: 7A – Partially Introduced)
- Recognize how to access, evaluate, and use information to improve teaching and learning (Core Technology: 8A – Introduced)

Performance Objectives

- Operate a multimedia computer system with related peripheral devices to successfully install and use a variety of software packages (Core Technology: 1B – Met)
- Use appropriate terminology related to computers and technology in written and oral communications (Core Technology: 1C – Met)
- Describe and implement basic troubleshooting techniques for multimedia computer systems with related peripheral devices (Core Technology: 1D – Met)
- Use imaging devices such as scanners, digital cameras, and/or video cameras with computer systems and software (Core Technology: 1E – Met)
- Demonstrate knowledge of the uses of computers and technology in education, business and industry, and society (Core Technology: 1F – Met)
- Use computers and other learning technologies to support problem solving, data collection, information management, communications, presentations, and decision making (Core Technology: 2C – Introduced)
- Use productivity tools for word processing, database management, and spreadsheet applications, and basic multimedia presentations (Core Technology: 2D – Introduced)
- Use computer-based technologies, including telecommunications to access information and enhance personal and professional productivity (Core Technology: 2E – Introduced)
- Demonstrate awareness of resources for adaptive/assistive devices for students with special needs (Core Technology: 2F – Introduced)
- Demonstrate knowledge of ethical and legal issues concerning use of computers and technology (Core Technology: 2G – Met)
- Adhere to copyright laws and guidelines in the access and use of information from various technologies (Core Technology: 2H – Introduced)
- Demonstrate knowledge of broadcast instruction, audio/video conferencing, and other distant learning applications (Core Technology: 2I – Introduced)
- Explore, evaluate, and use computer/technology resources, including applications, tools, educational software, and associated documentation (Core Technology: 3B – Introduced)
- Practice socially responsible, ethical, and legal use of technology, information, and software resources (Core Technology: 3E – Met)
- Describe the historical development and important trends affecting the evolution of technology and its probable future roles in society (Core Technology: 4B – Met)
- Access and use telecommunications tools and resources for information sharing, remote access and retrieval, and multimedia/ hypermedia publishing (Core Technology: 6B – Introduced)
- Use electronic mail and Web browser applications for communications and for research to support instruction (Core Technology: 6C – Introduced)
- Use automated, online search tools and intelligent agents to identify and index desired information resources (Core Technology: 6D – Introduced)

- Select appropriate tools for communicating concepts, conducting research, and solving problems for an intended audience and purpose (Core Technology: 7D – Introduced)
- Collaborate with online workgroups to build bodies of knowledge around specific topics (Core Technology: 7F – Introduced)
- Use a computer projection device to support and deliver oral presentations (Core Technology: 7G – Met)
- Design and publish simple online documents that present information and include links to critical resources (Core Technology: 7H – Met)
- Conduct research and evaluate online sources of information that support and enhance the curriculum (Core Technology: 7J – Introduced)

Course Content/Topics:

- I. Role of Technology in Society (1A, 2A, 3A, 4A)
 - A. Historical Development and Important Trends (4B)
 - B. Use of Technology in Education, Business and Industry, and Society (1F)
 - C. Ethical Use of Technology (2G, 2H, 3E)
 - D. Diversity, Health, and Safety Issues (2F)

- II. Introduction to Technology Hardware and Software (1A, 2A, 3A, 7A)
 - A. Terminology Related to Computers (1C)
 - B. Multimedia Computer Systems and Peripheral Devices (1B, 1D, 2C, 7G)
 - C. Imaging Devices (Scanners, Digital Cameras, Video Cameras) (1E, 2G, 2H, 3B, 3E)
 - D. Office Software Applications (2C, 2D, 3B)
 - E. Educational Software (2F, 2G, 2H, 3B, 3E, 7D)
 - F. E-Portfolio Software (2E, 3B)

- III. Introduction to Telecommunications Applications and Information Access (2A, 3A, 6A, 7A, 8A)
 - A. E-Mail/Bulletin Boards/Messaging (2C, 2E, 2G, 3B, 3E, 6B, 6C, 7D, 7F)
 - B. Online Research and Resources (2C, 2E, 2H, 3B, 3E, 6B, 6C, 6D, 7D, 7H, 7J)
 - C. Information Literacy (2C, 2E, 2H, 3B, 3E, 6B, 6C, 6D, 7D, 7J)
 - D. Online/Web Publishing (2C, 2F, 2G, 2H, 3B, 3E, 6B, 7H)
 - E. Distance Learning Applications (Streaming Video, Conferencing, etc.) (2I)

Sample of Acceptable Course Assignments/Assessments/Artifacts:

- Write a **Computer Purchase Proposal**, including a rationale of technology use in education; ethics, health, safety issues; and future trends. (1C, 1F, 2F, 2G, 3B, 3E, 4B, 6B, 6D)
- Find and critique an **Acceptable Use Policy**. (1C, 1F, 2F, 2G, 2H, 2I, 4B, 6B, 6C, 6D)
- Build a collection of grade level appropriate resources for a **thematic unit** on a specific topic (e.g. Lewis and Clark, solar system, farm animals, Egypt, mummies, dinosaurs), including the following exercises: location of the Illinois Learning Standards; identification of standards that apply to the proposed unit; selection of Web resources and educational software appropriate for students and teachers; Web research for grade level appropriate lesson plans that support the learning standards. (2C, 2D, 2E, 3B, 3E, 6B, 6C, 6D, 7D, 7J)
- Develop a **hypermedia (PowerPoint or Web page) presentation**, including such hypermedia components as images and video clips, of the thematic resources unit. (1E, 2C, 2D, 2H, 3E, 6B, 7H)
- Present the hypermedia thematic unit resources. (1B, 1D, 2C, 2D, 6B, 7G)
- Collect artifacts, such as a student resume, a parent newsletter about the thematic resources unit, a bibliography of articles on assistive technology, a library resources assignment, and a grade book spreadsheet, in the student's electronic portfolio. (1E, 2C, 2D, 2F, 6B, 6D, 7H)