

Revised 2007

Ashland University  
Dwight Schar College of Education  
Department of Curriculum and Instruction  
Course Syllabus

Graduate: Undergrad: X  
Credit Hours: 3  
Field/Clinical Hours: 20

**Course Number:** EDCI 232

**Course title for the catalog:** Introduction to the Principles of Instructional Technology

**Catalog description:**

This course offers students an introduction to the theories and principles of instructional technology. There are five main areas of focus in this course: (1) Research, theory, and history of instructional technology; (2) Visual Literacy; (3) Evaluation of instructional technology (including information on design criteria); (4) The relationship of instructional technology to learning styles; and (5) Instructional computing experiences. To assist in developing a link between theory and practice, students will have hands-on experience with various forms of instructional technology and with problem solving techniques appropriate to the media.

**The prerequisite (s) for this course is (are):**

EDCI 131 Instructional Media Lab

**The enrollment restriction (s) for this course is (are):**

Dependent on the number of computers available

**Course and field/clinical experience objectives (including knowledge, skills, and dispositions):**

**KNOWLEDGE**

The undergraduate student will have knowledge of:

- TF-I technology operations and concepts.:
- TF-II planning and designing learning environments and experiences.
- TF-III curriculum plans that include methods and strategies for applying technology to maximize student learning.
- TF-IV technology to facilitate a variety of effective assessment and evaluation strategies.
- TF-V technology to enhance productivity and professional practice.
- TF-VI social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

## **SKILLS**

The undergraduate student will have skills to:

- TF-I demonstrate a sound understanding of technology operations and concepts.
- TF-I.A. demonstrate an understanding of concepts related to technology (as described in the ISTE National Education Technology Standards for Students).
- TF-I.B. demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging technologies.
- TF-II plan and design effective learning environments and experiences supported by technology.
- TF-II.A. design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.
- TF-II.B. apply current research on teaching and learning with technology when planning learning environments and experiences.
- TF-II.C. identify and locate technology resources and evaluate them for accuracy and suitability.
- TF-II.D. plan for the management of technology resources within the context of learning activities.
- TF-II.E. plan strategies to manage student learning in a technology-enhanced environment.
- TF-II.F. identify and apply instructional design principles associated with the development of technology resources.
- TF-III implement curriculum plans that include methods and strategies for applying technology to maximize student learning.
- TF-III.A. plan and implement technology-enhanced experiences that address best practices research and support content standards and student technology standards.
- TF-III.B. use technology to support learner-centered strategies that address the diverse needs of students.
- TF-III.C. apply technology to develop students' higher order skills and creativity.
- TF-III.D. manage student-learning activities in a technology-enhanced environment.
- TF-III.E. use current research and district/region/state/national content and technology standards to build lessons and units of instruction.
- TF-IV apply technology to facilitate a variety of effective assessment and evaluation strategies.
- TF-IV.A. apply technology in assessing student learning of subject matter using a variety of assessment techniques.
- TF-IV.B. use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning.
- TF-IV.C. apply multiple methods of evaluation to determine students' appropriate use of technology resources for learning, communication, and productivity.
- TF-V use technology to enhance their productivity and professional practice.
- TF-V.A. use technology resources to engage in ongoing professional development and lifelong learning.
- TF-V.B. continually evaluate and reflect on professional practice to make informed decisions regarding the use of technology in support of student learning.
- TF-V.C. apply technology to increase productivity.

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|-----------------|---|
| TF-V.D.         | use technology to communicate and collaborate with peers, parents, and the larger community in order to nurture student learning.   |
| TF-VI           | understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools and apply that understanding in practice.  |
| TF-VI.A.        | model and teach legal and ethical practice related to technology use.   |
| TF-VI.B.        | apply technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities.   |
| TF-VI.C.        | identify and use technology resources that affirm diversity   |
| TF-VI.D.        | promote safe and healthy use of technology resources.   |
| TF-VI.E.        | facilitate equitable access to technology resources for all students.   |
| Tenet<br>1      | conduct research with stakeholders of their local school districts to identify resources available through the schools, district, & community agencies while performing on-line searches of other local and global organizations.   |
| Tenets<br>2 & 7 | create and present projects using educational technologies which include productivity tools, hypermedia, and telecommunication applications, including listservs.   |
| Tenet<br>3      | participate in class discussions and interactive listserv communications dealing with issues related towards assistive technology, cultural diversity, individual and socioeconomic differences and how instructional technology can influence and effect the potential for learning. |
| Tenet<br>8      | compose reflective summaries of projects and presentations which identify individual strengths, needs, and goals for improving performance growth and potential.  |
| Tenet<br>11     | relate and incorporate technology standards into class discussions and individual and group projects.   |

### **DISPOSITIONS:**

The undergraduate student will:

1. value various forms of instructional technology as professional tools for use in education.
2. feel comfortable in using instructional technology and related technology
3. appreciate the instructional variety of instructional technology in meeting the various learning needs and learning styles of students.
4. appreciate the instructional and management capabilities, as well as the limitations, of media and technology in instructional settings.
5. appreciate the ethical standards in relation to using instructional technology.
6. value high standards when evaluating instructional technology.
7. appreciate the ever-changing possibilities of instructional technology.
8. value the theory which provides a basis for the practical applications of instructional technology.
9. begin to appreciate the value of identifying the appropriate type of instructional technology for each instructional goal.
10. appreciate and follow the relevant Ashland University software and information technology policies.

### **Suggested instructional strategies:**

Lecture, discussion, demonstrations, hands-on activities

**Description of field/clinical experiences:**

Evaluation of students:

Students are expected to:

- use the appropriate terminology related to instructional technology.
- describe the historical development of instructional technology.
- evaluate various forms of instructional technology.
- create material for classroom instruction and/or management using instructional technology, including computer-based presentations.
- identify ways to integrate instructional technology into the classroom to meet the diverse needs of students.
- identify and describe the various theories that support the use of instructional technology.

**Faculty who frequently teach the course:**

Romano, D

**Licensure programs in which course is required:**

All

**If the course is offered for either undergraduate or graduate credit, identify the respective difference in expectations:**

**Bibliography:**

Ashburn, E., & Floden, R. (2006). Meaningful learning using technology: what educators need to know and do. New York: Teachers College Press.

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Coppola, Eileen M. (2004). Powering up: learning to teach well with technology. New York: Teachers College Press.

Forcier, R. C. (2005). The Computer as an Educational Tool: Productivity and Problem Solving, 4<sup>th</sup> Ed. Columbus, OH: Merrill.

Heinich, R. (2004). Instructional media and technologies for learning, 8<sup>th</sup> Ed. Upper Saddle River, NJ: Merrill.

Lever-Duffy, J., McDonald, J., & Mizell, A. (2005). Teaching and learning with technology. Boston: Pearson.

McKenzie, W. (2005). Multiple intelligences and instructional technology. Eugene, OR.: International Society for Technology in Education.

Rabinowitz, M., Blumberg, F., & Everson, H. (2004). The design of instruction and evaluation: affordances of using media and technology. Mahwah, N.J.: Lawrence Erlbaum Associates, Publishers.

Wenglinsky, H. (2005). Using technology wisely: the keys to success in schools. New York: Teachers College Press.

THE INTERNATIONAL SOCIETY FOR TECHNOLOGY IN EDUCATION (ISTE)  
TECHNOLOGY FACILITATION (TF) STANDARDS

- TF-I Technology Operations and Concepts. Teachers demonstrate a sound understanding of technology operations and concepts. Teachers:
- TF-I A Demonstrate introductory knowledge, skills, and understanding of concepts related to technology (as described in the ISTE National Education Technology Standards for Students).
- TF-I B Demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging technologies.
- TF-II Planning and Designing Learning Environments and Experiences. Teachers plan and design effective learning environments and experiences supported by technology. Teachers:
- TF-II A Design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.
- TF-II B Apply current research on teaching and learning with technology when planning learning environments and experiences.
- TF-II C Identify and locate technology resources and evaluate them for accuracy and suitability.
- TF-II D Plan for the management of technology resources within the context of learning activities.
- TF-II E Plan strategies to manage student learning in a technology-enhanced environment.
- TF-II F Identify and apply instructional design principles associated with the development of technology resources.
- TF-III Teaching, Learning, and the Curriculum. Teachers implement curriculum plans that include methods and strategies for applying technology to maximize student learning. Teachers:
- TF-III A Plan and implement technology-enhanced experiences that address best practices research and support content standards and student technology standards.
- TF-III B Use technology to support learner-centered strategies that address the diverse needs of students.
- TF-III C Apply technology to develop students' higher order skills and creativity.
- TF-III D Manage student-learning activities in a technology-enhanced environment.
- TF-III E Use current research and district/region/state/national content and technology standards to build lessons and units of instruction.
- TF-IV Assessment and Evaluation. Teachers apply technology to facilitate a variety of effective assessment and evaluation strategies. Teachers:
- TF-IV A Apply technology in assessing student learning of subject matter using a variety of assessment techniques.
- TF-IV B Use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning.
- TF-IV C Apply multiple methods of evaluation to determine students' appropriate use of technology resources for learning, communication, and productivity.
- TF-V Productivity and Professional Practice. Teachers use technology to enhance their productivity and professional practice. Teachers:

- TF-V A Use technology resources to engage in ongoing professional development and lifelong learning.
- TF-V B Continually evaluate and reflect on professional practice to make informed decisions regarding the use of technology in support of student learning.
- TF-V C Apply technology to increase productivity.
- TF-V D Use technology to communicate and collaborate with peers, parents, and the larger community in order to nurture student learning.
- TF-VI Social, Ethical, Legal, and Human Issues. Teachers understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools and apply that understanding in practice. Teachers:
  - TF-VI A Model and teach legal and ethical practice related to technology use.
  - TF-VI B Apply technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities.
  - TF-VI C Identify and use technology resources that affirm diversity
  - TF-VI D Promote safe and healthy use of technology resources.
  - TF-VI E Facilitate equitable access to technology resources for all students.
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  - TF-II A Design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.
  - TF-II B Apply current research on teaching and learning with technology when planning learning environments and experiences.

## **TENETS**

- Tenet 1 Promotes collegiality and works cooperatively and collaboratively with all stakeholders of our learning community (faculty members, students, school personnel, human service professionals, and members of the global community) to improve the condition of the local and larger community.
- Tenet 2 Listen, interprets, and communicates effectively.
- Tenet 3 Demonstrates global understandings of how individual development, cultural diversity, socioeconomic conditions and individual differences influence the opportunities of all individuals to learn and contribute to their full potential.
- Tenet 7 Integrates educational technology in teaching and learning processes.
- Tenet 8 Demonstrates reflection on professional strengths and needs and plans for professional development to improve future performance.
- Tenet 11 Identifies and justifies standards of professional behavior.