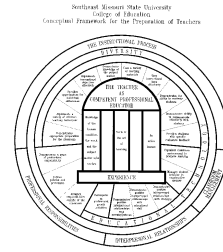


# COURSE SYLLABUS

## SOUTHEAST MISSOURI STATE UNIVERSITY

Department of Elementary, Early & Special Education  
Course: Multimedia in the Classroom

Course No. EL312  
New: Sp 99



### “The Teacher As Competent Professional Educator”

#### I. Catalog Description and Credit Hours of Course:

This class will provide an in-depth look at the use of existing multimedia technology and software as they relate to teaching and learning. Hardware includes CD-ROM, DVD, laserdisc, and multimedia computers. (3)

#### II. Prerequisite(s):

EL210 Integrating Technology into the Classroom

#### III. Purposes or Objectives of the Course:

By the end of the course, the student will have demonstrated acquisition of the knowledge base and skills necessary to:

- A. Identify various multimedia technologies and how they can enhance the teaching and learning process.
- B. Demonstrate ability to operate a multimedia technologies successfully to support the instructional process.
- C. Identify and apply good instructional design principles involved in developing multimedia projects.
- D. Explore integration of multimedia into the various content areas.

#### IV. Expectations of Students:

- A. Students will complete all assigned readings in textbook, handouts and relevant professional journal articles.
- B. Students will participate in classroom discussions and activities.
- C. Students will demonstrate achievement of course objectives through exams and projects.
- D. Students will use instructional technology to develop class-assigned projects.

#### V. Content or Outline:

- |  | <b>Hours</b> |
|--|--------------|
| A. Using multimedia for effective teaching | 3            |
| B. Role of existing multimedia software    | 6            |
| 1. CD-ROMs                                 |              |
| 2. Laserdisc                               |              |
| 3. DVD                                     |              |

C.	Multimedia hardware and software	6
1.	CD-ROM	
2.	Laserdisc	
3.	Video capture	
4.	Scanner	
5.	Digital camera	
D.	Instructional design techniques for developing effective instruction	6
1.	Planning	
2.	Gathering resources	
3.	Storyboarding	
4.	Developing the software	
5.	Testing the software	
E.	Developing multimedia projects for content areas	12
1.	Math	
2.	Communication arts	
3.	Social studies	
4.	Science	
5.	Dance, music, theater, and visual arts	
6.	Health/P.E.	
7.	Vocational education	
F.	Using multimedia in presentations	6
G.	Using multimedia in constructivist teaching activities	6

**VI. Textbook(s) and/or Other Required Materials or Equipment:**

Agnew, P., Kellerman, A., & Meyer, J. (1996). *Multimedia in the classroom*. Needham Heights: Allyn and Bacon.

**VII. Basis for Student Evaluation:**

- A. Basic competency demonstration in laserdisc, CD-ROM, and multimedia authoring systems
- B. Tests
- C. Interactive multimedia lesson

**VIII. Knowledge Base:**

Abrams, A. (1996). *Multimedia magic*. Boston: Allyn & Bacon.

Alessi, S.M. & Trolliop, S.R. (1991). *Computer-based instruction, methods, and development*. Englewood Cliffs, NJ: Prentice-Hall.

Anderson, C. (1998). *The impact of conceptual models and cooperative learning on the development of mental models for proportions*. An unpublished doctoral dissertation, University of Iowa, Iowa City.

Bagley, C. & Hunter, B. (1992). Restructuring, constructivism, and the future of classroom learning. *Education and the Urban Society*, 24(4), 66-76.

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- Barron, A.E. & Atkins, D. (1994). Audio instruction in multimedia education: Is textual redundancy important? *Journal of Educational Multimedia and Hypermedia*, 3(3/4), 295-306.
- Baxter, T. & Heller, S. (1992). Getting closer to science: Experiences using Hypercard to interest young minority women in science. *Journal of Hypermedia and Multimedia Studies*, 3(1), 31.
- Beekman, G. (1992). Recreating Native American legends with Hypercard. *The Computing Teacher*, 19(5), p. 31.
- Brownell, G. (1992). *Computers and teaching*. St. Paul, MN: West Publishing Co.
- Burger, J. (1993). *The desktop multimedia bible*. Reading, MA: Addison-Wesley Publishing Co.
- Bouras, C., Fotakis, D. Kapoulas, V. Knotogiannis, S. Lampsas, P., Spriakis, P., Takakis, A. (1997). Using multimedia/hypermedia tools over networks for distance education and training. *Educational Technology Review, Summer(7)*, 20-27
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- ChanLin, AA, Okey, AA, & Reinking, AA. (1992). *Computer graphics: implications for instructional design. ADCIS 34th Conference*. University of Georgia.
- Clark, C., Kurshan, B., & Yoder, S. (1989). *Telecommunications in the classroom*. Eugene, OR: International Society for Technology in Education.
- Cognition and Technology Group at Vanderbilt (1990). Anchored instruction and its relationship to situated cognition. *Educational Researcher*, 19(6), 2-10.
- Cognition and Technology Group at Vanderbilt (1995). Looking at technology in context: A framework for understanding technology and education research. In D.C. Berliner (Ed.). *The handbook of educational psychology*. New York: Macmillan.
- Craig, D.V. & Stewart, J. (1997). Mission to Mars - a collaborative project infusing technology and telecommunications into the curriculum. *Learning and Leading with Technology*, 25(2), 22-28.
- DeVillar, R. & Fallis, C. (1991). *Computers and cultural diversity: restructuring for student success*. Albany, NY: State University of New York Press.
- Docterman, D. (1991). *Great teaching in the one computer classroom*. Cambridge, MA: Tom Snyder Productions.
- Enderson, M. (1997). Old problems, new questions - using technology to enhance math education. *Learning and Leading with Technology*, 25(2), 28-34.
- Epstein, R. (1993). Generativity theory and education. *Educational Technology*, 33(10), 40-45.
- Estes, C. (1994). The real-world connection. *Simulation and Gaming*, 25(4), 456-463.
- Falk, D.R. & Carlson, H.L. (1992). Learning to teach with multimedia. *T.H.E. Journal*, 20(2), 96-100.

Finkel, L. (1993). Planning for obsolescence: Upgrading and replacing old computers. *Electronic Learning*, 12(7), 18-19.

Funkhouser, C. & Dennis, J. (1992). The effects of problem-solving ability. *Journal of Research in Computing in Education*, 24(9), 17-26.

Funkhouser, C. (1993). The influence of problem solving software on student attitudes about mathematics. *Journal of Research on Computing in Education*, 25(3), 339-346.

Gagne, R, Wager, W., Rohas, A. (1981). Planning and authoring computer-assisted instruction lessons. *Educational Technology*, 21(9), 17-26.

Hall, Tom. (1995). *Utilizing ToolBook to develop multimedia presentations*. Greenville, NC: TCC Publishing.

Haykin, R. (1993). *Demystifying multimedia - a guide for multimedia developers*. San Francisco: Vivid Publishing.

Heinrich, R., Molenda, M., Russell, J. & Smaldino, S. (1996). *Instructional media and technologies for learning*. Englewood Cliffs, NJ: Merrill.

Herman, J., Aschbacher, P., & Winters, L. (1993). *Practical guide to alternative assessment*. ASCD Association for Supervision and Curriculum Development, Los Angeles: Regents of the University of California.

Hodges, B. (1997). Task computing. *Learning and Leading with Technology*, 25(2), 6-12.

Hoffman, J. & Lyons, D. (1997). Evaluating instructional software. *Learning and Leading with Technology*, 25(2), 52-56.

*Hyperstudio Journal*. (1998) Available: <http://www.hyperstudio.com> [accessed March 29, 1998]

*International Society for Technology in Education recommended foundations in technology for all teachers*. [online] 2. Available: <http://www.iste.org/specproj/standard/found.html> [Accessed October 28, 1997].

Jankowskil, L (1993-1994). Getting started with databases. *The Computing Teacher*, 21(4), 8-9.

Kahn, Jessica (1997). Scaffolding in the classroom; using CD-ROM storybooks at a computer reading center. *Learning and Leading with Technology*, 25(2), 17-19.

Kozma, R. (1994). Will media influence learning? Reframing the debate. *Educational Technology Research and Development*, 42(2), 5-17.

Lee, AA & Lehman. (1993). Instructional cueing in hypermedia: a study with active and passive learners. *Journal of Educational Multimedia and Hypermedia*, 2(1), pp. 25-38.

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McDevitt, M. (1995). Two-way television: Linking preservice teachers to real world schools. *Journal of Technology and Teacher Education*, 3(1), 81-92.

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- Murie, M. (1993). *Macintosh Multimedia Workshop*. Indianapolis, Indiana: Hayden, 1993.
- Nelson, AA & Palumbo. (1992). Learning, instruction, & hypermedia. *Journal of Educational Multimedia and Hypermedia*, 1(3), pp. 287-300.
- Papert, S. (1980). *Mindstorms-children, computers and powerful ideas*. New York: Basic Books.
- Price, R. (1991). *Computer-aided instruction, a guide for authors*. Belmont, CA: Wadsworth.
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- Roblyer, M. (1994). *Creating technology-using teachers: A model for preservice technology integration project*. Tallahassee, FL: Florida A & M University.
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