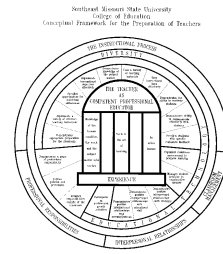


COURSE SYLLABUS

SOUTHEAST MISSOURI STATE UNIVERSITY

Department of Elementary, Early & Special Education
Course: Technology Planning and Hardware

Course No. EL585
New: Sp 99



“The Teacher As Competent Professional Educator”

I. Catalog Description and Credit Hours of Course:

This class will explore technology hardware and networking, care and maintenance. Students will also design a technology plan and the carry through on the technology plan. (3)

II. Prerequisite(s):

Permission of instructor.

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. Describe the characteristics of instructional media and its use in the classroom.
- B. Evaluate and select media according to appropriate criteria guidelines.
- C. Describe instructional uses and necessary equipment needed for instructional television, instructional audio, projection systems and computer-based presentations.
- D. Describe and define instructional uses of tool software, such as word processing, spreadsheet, art programs and databases.
- E. Describe and demonstrate ability to set up a network system.
- F. Prepare a school technology plan, including statements on the ethical use of technology.

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 develop class-assigned projects.

V. Content or Outline:	Hours
A. Characteristics and classroom use of technology in the classroom.	3
1. Research and theory	
2. Media utilization procedures	
B. Media selection and evaluation guidelines for effective instruction	3
C. Video systems, audio systems, and instructional television	9
1. Instructional uses of television	
2. Types of video technology and audio technology	
3. Production of video and audio	
4. Care of equipment	
D. Projection systems	6
1. Instructional use of LCD, overhead, slide, filmstrip, and opaque projection systems	
2. Care and maintenance of equipment	
E. Microcomputers	6
1. Computer Assisted Instruction	
2. Care and maintenance	
3. Integrated Learning Systems	
4. Tool software	
F. Networking and telecommunications	9
1. Establishing a network	
2. Types of networks	
3. Telecommunications	
G. Writing a technology plan	9
1. Selecting software	
2. Selecting hardware	
3. Ethical use of technology	

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

Teague, F.A., Rogers, D.W., & Tipling, R.N. (1994). *Technology and media: Instructional applications*. Dubuque, IA: Kendall/Hunt Publishing Co.

VII. Basis for Student Evaluation:

- A. Basic competency demonstration in use of a variety of technologies.
- B. Tests.
- C. Technology plan.

VIII. Knowledge Base:

Anderson, R. (ed.) (1993). *Computers in American schools 1992: An overview*. Minneapolis: University of Minnesota.

Becker, H. (1991a). How computers are used in United States schools: Basic data from the 1989 IEA computers in education survey. *Journal of Educational Computing Research*, 7(4), 385-406.

- Becker, H. (1991b). When powerful tools meet conventional beliefs and institutional constraints. *The Computing Teacher*, 18(8), 6-9.
- Becker, H. (1993). How exemplary computer-using teachers differ from other teachers: Implications for realizing the potential of computers in schools. *Journal of Research on Computing in Education*, 26(3), 291-321.
- Bitter, G., Camuse, R. & Durbin, V. (1993). *Using a microcomputer in the classroom (3rd ed.)*. Boston: Houghton-Mifflin.
- Bozeman, W.C. & Baumbach, D.J. (1995). *Educational technology: Best practices from America's schools*. Princeton Junction, NJ: Eye on Education, Inc.
- Brady, H. (1991). New survey realizes what top technology teachers have learned. *Technology and Learning*, 11(4), 38-39, 42-43.
- Carter, K. (1996). After the plan's approved: Keeping the technology planning process alive and moving. *Technology and Learning*, (16)6, 28-37.
- Claris Corporation. (1993a). *Clarisworks 2.0 for teachers: Managing classroom teaching on your Macintosh*. Santa Clara, CA: Claris Corp.
- Claris Corporation (1993b). *Clarisworks 2.0 in the classroom: Extending your curriculum with ClarisWorks projects*. Santa Clara, CA: Claris Corp.
- Cosden, M. (1988). Microcomputer instruction and perceptions of effectiveness by special and regular elementary school teachers. *Journal of Special Education*, 22(2), 242-253.
- D'Ignazio, F. (1990). Restructuring knowledge: Opportunities for classroom learning in the 1990s. *The Computing Teacher* 18(1), 22-25.
- DeLoughry, T. (1994). Copyright issues said to stall many multimedia projects. *Chronicle of Higher Education*, A18.
- Desberb, P. & Fisher, F. (1998). *Teaching with technology, (2nd ed.)*. Boston: Allyn and Bacon.
- Dvorak, J.C. & Anis, N. (1990). *Dvorak's guide to PC telecommunications*. Berkeley, CA: Osborne McGraw-Hill.
- Dyrli, O.E. (1996). Technology planning with online resources. *Technology and Learning*, 16(6), 16.
- Education Council for Technology in Learning. (1998). Donated computers in K-12 education: How to find them and how to use them. *Learning and Leading with Technology*, 25(5), 52-57.
- Ely, D. (1992). *Trends and issues in educational technology*, ERIC document ED346850. Syracuse, NY: ERIC Clearinghouse for Information Resources.
- Garcia, R.L. (1991). *Teaching in a pluralistic society: Concepts, models, and strategies*. New York: HarperCollins.
- Geisert, P. & Futrell, M. (1995). *Teachers, computers, and curriculum (2nd ed.)*. Boston: Allyn and Bacon.
- Harrington-Lueker, D. (1997). The powered library. *Technology and Learning*, 16(6), 44-49.

Heinrich, R., Molenda, M., Russell, J., & Smaldino, S. (1996). *Instructional media and technologies for learning (5th ed.)*. Englewood Cliffs, NJ: Prentice-Hall.

Kafaipour, S.F. (1995). ISDN picks up the pace. *PC Magazine*, (Sept), NE1-NE19.

Kearns, D.T. & Anderson, J.L. (1997). Sharing the vision: Creating New American Schools. In Stringfield, S.C., Ross, S.M. & Smith, L.J. (Eds.) *Bold new plans for school restructuring: The New American Schools Development Corporation design*. Mahwah, NH: Erlbaum.

Kinnaman, D.E. (1996). Buying hardware: How to avoid mistakes. *Technology and Learning*, 13(6), 59-60.

Lowe, D. (1994). *Networking for dummies*. IDG Books.

Moursand, D. (1992). *The technology coordinator*. Eugene, OR: ISRE.

Moursand, D. (1996). Grant writing for technology in education: Part 2 - The dollars and cents of grant writing. *Learning and Leading with Technology*, 23(5), pp. 34-37.

National School Board Association. (1995). *Plans and policies for technology in education: A compendium*. Alexandria, VA: NSBA.

Norton, P. & Wiburg, K. (1998). *Teaching with technology*. Orlando, FL: Harcourt, Brace, & Co.

Salpeter, J. (1998). News extra: Snapshot of educational technology today. *Technology and Learning*, 18(6), 68-71.

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