William Paterson University  
College of Education  
Department of Curriculum and Instruction

COURSE OF STUDY

Theme: Preparing Inquiring Educators: Knowledge, Understanding and Application

1. COURSE TITLE AND NUMBER OF CREDITS: Information Processing Technology in Library/Media Services (ELLM 513), Three Graduate Credits

2. COURSE DESCRIPTION: An Introduction to the fields of information technology with particular emphasis on the system approach to planning and evaluation. A variety of information storage and retrieval systems is examined, such as microcomputers and automated systems, telecommunications, electronic mail, multimedia, and networking, from the user’s view of input, process, and output functions. Attention is given the application of these systems in the library media center.

3. PREREQUISITES AND RESTRICTIONS: None

4. COURSE OBJECTIVES: This course is designed to introduce the fields of information technology and planning so that he or she will be able to effectively integrate technology in the library/media program. To that end, the student will be able to:
   A. Demonstrate an understanding of new technologies of information by developing a hypothesis on using technology in education and support or refute the topic by performing a literature review and report findings in a research paper. APA format is required.
   B. Identify major trends in media & information technology by researching relevant articles and producing at least five reaction papers.
   C. Evaluate and select appropriate media & apply them in teaching/learning situations on the basis of specified audience needs & objectives by working in cooperative groups as an in-class assignment.
   D. Employ the systems approach to planning for the use of information technology in the library media center by working in cooperative groups through on-line discussions and synthesizing findings to the rest of the class on the course web page.
   E. Integrate technology in library media services through visiting and observing library media centers in the local region on New Jersey. Two field visits are conducted, one at the elementary level and the other in the secondary level.
   F. Apply technology in both individual & group processes through cooperative projects, such as developing a HyperStudio stack incorporating graphics, audio, and text.
   G. Use Information Power as a reference in incorporating technology in the library/media center as evidenced in the preparation of technology plans.

5. STUDENT LEARNING OUTCOMES: At the end of the course, students will be able to
   A. Engage in reflective inquiry about professional knowledge, understanding, and application of technology in the library media program as demonstrated by developing a technology plan and through assessment of relevant articles. (COE, GSLO, A.1.)
   B. Demonstrate knowledge of developments and implications of technology as they apply in the library media center and K-12 educational program through conducting a literature review and assessing published research. (COE, GSLO, B.4.)
C. Integrate information and theories into the professional decision-making process of planning for educational technology in the library media program as evidenced by developing a technology plan for a hypothetical situation. (COE, GSLO, C.1.)

D. Use methods of planning that are consistent with exemplary educational professional practices for the K-12 educational programs as proved in the development of a technology plan. (COE, GSLO, D.4.)

E. Apply research in the pursuit of effective, reflective, innovative pedagogical and clinical practice in integrating technology in the K-12 educational programs as evidenced in the research paper based on a hypothesis and literature review. (COE, GSLO, D.5.)

F. Integrate technology into curriculum and practice through the development of a multimedia program and evaluation of software programs. (COE, GSLO, D.6.)

G. Collaborate with others toward continuing professional development as evidenced in the on-line discussion assignments and experience using the Internet and distance learning in order to complete the assignments. (COE, GSLO, D.8.)

6. COURSE CONTENT
   A. Information technology
      1. Definitions
      2. Functions
      3. Symbols, codes languages, & modes
      4. Devices & systems
      5. Makers & sellers
      6. Buyers & users
   B. Communication Theory
   C. Systems Approach
      1. Learner characteristics: individual & groups processes
      2. Planning
      3. Curriculum: instructional strategies including selection & evaluation of media
      4. Implementation
      5. Financing
      6. Evaluation
      7. Research & Development
   D. Applications
      1. CD-ROM technology
         a. Educational Applications & integration ideas
            (1) Reference sources
            (2) Interactive storybooks
            (3) Curriculum support software
      2. Multimedia applications
         a. Computers
            (1) On-line catalogs and circulation systems
            (2) Library/media skills
            b. Website development
            c. Hypermedia (such as Kid Pix, HyperStudio)
      3. Digital audio, video & imaging
         a. Educational applications
         b. Creating sound
         c. Scanning images
         d. QuickTime, Windows Media Player
      4. Networking
         a. LAN basics
b. File servers

c. Software

5. Telecommunications

a. E-mail
b. Bulletin board systems
c. On-line services
d. Modems
e. Facsimile machines
f. Video conferencing
g. ITV classroom

6. Strategies for the future

a. Preparing for the integration of emerging technologies

7. TEACHING/LEARNING METHODS:

A. Lecture/Discussion (both in-class and on-line using the class web site)
B. Hands-on lab experiences
C. Guest speakers
D. Demonstrations
E. Field trips: elementary media center and secondary media centers.

8. EVALUATION METHODS:

Students are expected to attend all lecture and laboratory experiences. The grade (assuming mastery requirements are met) will be based on the following. IT SHOULD BE NOTED THAT ALL PLAGIARISM (WHETHER INTENTIONAL OR NOT) IS NOT ACCEPTABLE.

1. Working in a cooperative group setting both in-class and on the course web page through discussion groups, develop a systems model for introducing technology. Each group will take the role of a particular group: administrators, teachers, parents, and students. Identify the major concerns and issues for the group you represent by surveying the literature, searching the web, and using professional standards. Summarize these findings in your group using the web discussion page. Follow the systems model by assessing opportunities and obstacles, developing goals and objectives, budget, personnel, types of programs and facilities needed. For more information on Technology Plans, refer to Technology Plans or to Hoffman and Rossett's School Technology Planner, a CD-ROM that guides one through the process of preparing and writing technology plans. (20% of grade)

2. Write a short research paper (10-20 pages in APA format). Develop a statement supported by empirical research (literature review) that defends or refutes your hypothesis. (30% of grade)

3. Create a HyperStudio and Kid Pix stack and a website. This will be done as an in-class cooperative group assignment. (10% of grade)

4. Create a portfolio containing articles on technology with a short summary and reaction paper for each one (maximum 1 page in length). Minimum of 5 articles. (20% of grade)

5. Select and evaluate 2 software programs. Use the evaluation instrument handed out in class. Evaluation should include grade levels and complete integration ideas. (10% of grade)

6. Each student will be expected to participate weekly on the course web page found at http://bb.wpunj.edu by contributing to group and class discussions. Class attendance on campus and for the field visits are expected. (10% of grade)
A = 93-100  Excellent
B = 85-92  Very Good
C = 77-84  Average
D = 69-76  Weak

9. RECOMMENDED TEXTS/READINGS:


XIII. Style Format:

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11. Department approval date:

12. Reviser(s) Names(s) and date:

13. Department revision approval date:

14. Bibliography:


Lane, E. S. (1993). *Internet primer for information professionals: A basic guide to Internet networking technology*. Westport, CT: Meckler.


Related Websites are found in the Blackboard course website.