

**School of Technology  
Eastern Illinois University**

Request for New Course

**1. Catalog Description**

- (a) Course number: TEC 5343
- (b) Title: Multimedia and Web Technology
- (c) Meeting times and Credit: 2-2-3
- (d) Term to be offered: S or F
- (e) Short title: Multimedia Tech
- (f) Course description: Multimedia and web technologies for applications in contemporary industry are introduced. Collaborative teamwork in the design and development of interactive technology-based projects is emphasized.
- (g) Prerequisite: Experience with and access to current computer technology.

**2. Objectives of the Course**

Students will:

- a. Demonstrate principles of design, development, and evaluation relevant to the creation of interactive technology programs.
- b. Formulate a working definition of interactive multimedia and hypermedia.
- c. Identify the advantages and disadvantage of multimedia and hypermedia applications for training, information dissemination and analysis, and communications.
- d. Research the characteristics of widely used types of hardware and software for developing multimedia and hypermedia applications.
- e. Use appropriate file formats for graphic imaging and video and audio production.
- f. Use streaming technologies, including hardware, software, and network systems for the development and distribution of media.
- g. Discuss issues related to copyright law, public domain, fair use, and multimedia copyright.
- h. Use an authoring program (this is negotiated by the student with the instructor and depends on the development project).
- i. Participate in team efforts to develop a final project.

- j. Participate in local (e.g., EIU listserv) and external (e.g., Web) electronic discussion groups on multimedia and hypermedia topics.
- k. Use the Internet and Web for the exchange and transfer of information in digital form.

### 3. Outline of the Course

### Weeks

1.	Introduction of topics: technology; design; defining multimedia and hypermedia systems and their advantages and disadvantages.	2
2.	Survey of associated technologies/hardware and software Lab I, II, III	3
3.	Principles of multimedia and hypermedia design; project design Lab IV, V	3
4.	Project development using an authoring system; media digitization; project management. Lab VI, VII, VIII, IX	4
5.	Product distribution Lab X	1
6.	Project evaluation Lab XI	2

### Evaluation

Hands-on experience will be emphasized throughout the entire course. The grades will be based upon the following proportions:

Class participation	15%
Computer lab exercises	25%
Mid-term research report	25%
Final project	35%

### 4. Implementation

- a. Faculty: Graduate faculty in School of Technology.
- b. Additional costs to students: None.
- c. Textbook: Roblyer, M. D. and Edwards, J. (2001). Integrating educational technology into teaching. Upper Saddle River, New Jersey: Prentice Hall.  
Textbook: Hillman, D. (1998). Multimedia technology and applications. New York: Delmar Publishers.
- d. Term to be first offered: Spring Semester 2002.

## 5. Rationale

- a. **Purpose and need:** The purpose of the course is to introduce graduate students to emerging multimedia and hypermedia technologies (including the World Wide Web) for training and information dissemination applications in contemporary industry. The course also provides students with experience in the design, development, and evaluation of training and/or informational technology-based projects. It is a goal of the course that students work with clients from the business and industry community to solve identified “real-world” needs.
- b. Rapid technological developments have fostered increased reliance on technology within industrial settings. In all sectors, it is increasingly necessary for employees to possess proficiency in utilizing technology, including multimedia and Web-based technologies, for delivering informational and training programs, collaborating, researching, communicating, and accessing and distributing information.
- c. **Justification of the course level:** A graduate level course is suitable for the students preparing to become managers in industry. The proposed course will provide graduate students with knowledge and skills to effectively develop multimedia or hypermedia applications suitable for use in an industrial or business setting. Working to create a “real-world” application, students obtain technical and analytical skills as well as experience with teamwork and client consultation.
- d. **Similarity to existing courses:** None.
- e. **Requirement or elective:** Elective for graduate students in Technology.

**6. Community College Transfer:** Not applicable.

**7. Date approved by the School of Technology Graduate Committee:** Nov.16, 2000

**8. Date approved by the School of Technology Curriculum Committee:** Dec. 5, 2000

**9. Date approved by Council of Graduate Studies:** Feb. 6, 2001

Revised 11/17/00