

# FDN 5420 Hypermedia in Instruction

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**Course description** - An exploration of the various forms of hypermedia available to educators and their role in the learning setting. Particular attention will be given to the development of learning activities that take advantage of the hypermedia environment.

**Objectives** - Upon completion of the course, students will:

1. Understand what hypermedia is and how it relates to business training, working and learning environments.
2. Become familiar with current issues and research related to the use of hypermedia in learning settings.
3. Become capable of designing effective hypermedia activities and courses for a variety of content areas and uses.
4. Become capable of supporting others in their development of effective hypermedia activities for their needs.
5. Become familiar with, and be able to use, hypermedia software packages effectively.

## Class Requirements:

1. **Attend class** - Policy outline on page 67 of the [Graduate Bulletin](#). Class cancellations due to inclement weather or other disasters will be announced through the cohort listserv. Generally, if your school district has closed schools we will not have a class in that district. If we do decide to have a class, please use your own discretion and come only if you are sure of your safety.
2. **Keep current** - Participate in class - demonstrations, discussions, and activities.
3. **Participate** in on-site field trips and conferences: as mutually agreed to by instructor and students.
4. Successfully **complete all projects and activities** - as outlined in the evaluation section of this class.
5. **Change any assignment** - in such a way that it is meaningful and useful to you and your students.

## Evaluation

Students will be evaluated on the successful completion of the following activities:

1. **Learning the Tools:** Using a variety of hypermedia tools, become familiar with the technologies presently available and ways they can be used to enhance instruction in learning environments. You (and at least one teammate) will be asked to explore at least

- 2 pieces of software that you are unfamiliar with and to share your experiences by responding to questions in the S-Mart and participating on the discussion board. (20%)
2. **Final Project:** Prepare and present a full scale, usable, learning activity that can be used for a learner population of your choice. Each project should include a series of learning activities that require students to engage in and use major hypermedia tools. These activities should include:
    - A. Problems to solve.
    - B. Knowledge to structure.
    - C. Assurance that each group member in class will achieve competence with many types of tool.
    - D. Requires collecting, analyzing , decisions about the information (content) and presentations of information learned.
    - E. Actively involves collaboration within and between groups.

These projects will be presented to the entire class at the end of the semester. (35%)

3. **Demonstrate Your Understanding of the Research** and Practice in Using Hypermedia in Learning Environments: Review research and activity reports on the uses of hypermedia in learning settings. Write a paper on what hypermedia is, how it can be used in a learning environment, and what the critical issues are when considering the use of hypermedia. Cite your sources. (10%)
  4. **Hypermedia Version of Your Position:** Using hypermedia software of your choice, present the position you established in the above paper on the use of hypermedia in learning settings in a hypermedia format. (10%)
  5. **Establish the Difference:** In a format of your choice, explain the difference between writing a paper and preparing the same information in a hypermedia format. (5%)
  6. **Participate:** Participate on the class Discussion Board and respond to questions in "Café Così che cosa?". (10%)
  7. **Map** (with one or more teammates) the hypermazes, noting key concepts and the organization of the mazes as they delineate key features of hypermedia. You may use whatever format, software or materials you deem suitable for the task. (10%)
- I. **Theory and Research**
- A. A Place to Start Your Research: Use the **AppEdTech Library** to seek articles on theory and research on hypermedia.
  - B. Linear and non-linear learning environments
    1. Hypermedia, Multimedia and Hypertext (Two brief histories of hypermedia: [A Short History of Hypertext](#).)
    2. Constructionist learning environments  
[Pedagogy for the 21st Century](#)
    3. A Complete MultiMedia Lab  
[The MIT Media Lab](#)
    4. A List of Resources (including "As We May Think" by Vannevar Bush)  
[Teaching with Electronic Technology](#)
    5. Another List of Resources at the  
[Texas Center for Education Technology](#) (You may also want to check out the TCET home page while you're here.)
  - C. What does the research say about hypermedia in relation to teaching and learning?
    1. Smith, Irene. *Hypermedia: A Review of the Literature and a Survey of Student Perceptions*. ISTE Publications, Eugene, OR 1993.

2. Kommers, Piet A. M. "Research on the Use of Hypermedia" in *Hypermedia Learning Environments*. Kommers, et. al., L. Erlbaum Associates, Publisher. Mahwah, NJ, 1996.
3. Anstendig, L. , Meyer, J. & Driver, M. (1998). [Web Research and Hypermedia: Tools for Engaged Learning](#). *Journal on Excellence in College Teaching*, 9(2), 69-91.
4. [The Hypermedia Research Centre](#), The University of Westminster.
5. [Using Hypermedia to Facilitate Problem-Based Learning](#), 1997. (This site has gone to a subscription plan...this article is no longer available for free. Sorry.)

## II. Developing Hypermedia Applications

### A. Articles on design

1. [HyperText Now](#)
2. [HyperText Edge](#)
3. [Theory Nuggets](#)
4. [Writing for the Web](#)

- B. Node Characteristics and Guidelines
- C. Link Characteristics and Guidelines
- D. Human-Computer Interface Design
- E. Screen Design
- F. User Support Strategies

## III. Hypermedia Development Tools (Shop S-Mart)

## IV. Models and Frameworks for Web Course Design

- A. [Sloan-C View: Perspectives on Quality Online Education](#)
- B. [Delivering Instruction on the WWW](#)
- C. [Web-Based Instruction Tools](#)
- D. Using the Internet as a Classroom Resource
- E. Education Subjects on the Net
- F. Using the Internet in Your Instruction
- G. [WebCT](#) and [Blackboard](#) are tools that facilitate the creation of sophisticated WWW-based educational environments. They can be used to create entire on-line courses, or to simply publish materials that supplement existing courses.
- H. This book will be indispensable when you start writing HTML. Elizabeth Castro, *HTML For the World Wide Web, 2nd Edition*, Peachpit Press, 1997.

## V. Effective Interaction with Web Courses

- A. Tools for Interaction
  - I. MUDs, MOOs, 2/3D MultiuserVirtual Worlds
  - II. [Education Technology: Educational VR](#)
- B. Strategies for interaction and collaboration
- C. Course Delivery Issues: Managing and Using Technology ([ILAS Open Source](#), a web course management system)
  - . Registration
    - A. Management of Assignments
    - B. Record Keeping
    - C. Evaluation
    - D. Motivation
    - E. Monitoring Along the Way

## VI. Business and Industrial Uses of Hypermedia Tools:

## VII. Current Issues in the Development and Use of Virtual Reality:

## Schedule

### January 20

- Introductions
- Introduction to the class
- Asking the right questions
- Introduction to FDN 5420 in AppEdTech

#### **Activity:**

**Get** acclimated to FDN 5420 in AppEdTech

**Introduce** yourself on the class [discussion board](#) (Who we are).

**Respond** to the "What is Hypermedia?" question in the "Café Così che cosa?". Read the answers others in class give and respond to their thoughts on this question and interact with others on these responses on the class [discussion board](#).

**Sign up** in the [class database](#).

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### January 27

- What is Hypermedia?
- What is Multimedia?
- What is the difference between hypermedia and multimedia?
- How does Hypermedia fit into the learning environment?

#### **Activity:**

**Go** through **HyperMaze A** in AppEdTech to explore the information found there. **Get together** with at least one other person to begin mapping the hypermaze ([see course requirements](#)).

**Begin** reading articles and web pages on Theory and Research associated with the use of hypermedia in learning settings (see [Course Outline](#) for possible sources).

**Respond** to the "What is Hypermedia?" (*After HyperMaze A*) question on the class [discussion board](#). Use information from the HyperMaze and your readings to support your position. Read the answers others in class give and respond to their thoughts on this question.

**Begin looking** at the other questions in "Café Così che cosa?" and begin responding to them, reading how others have responded, and sharing your thoughts on the class [discussion board](#).

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### February 3

- How does Hypermedia fit into a learning environment
- Linear vs. Non-linear Learning Environments.

#### **Activity:**

**Continue** reading articles and web pages on Theory and Research.

**Explore HyperMaze B** to explore the applications of Hypermedia to Learning settings. **Continue** mapping the hypermazes ([see course requirements](#)).

**Respond** to the "How can hypermedia be used to support learning?" question on the class

[discussion board](#). Use information from the HyperMaze and your readings to support your position. Read the answers others in class give and respond to their thoughts on this question. **Continue looking** at the other questions in "Café Così che cosa?", responding to them, reading how others have responded, and sharing your thoughts on the class [discussion board](#).

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### February 10

- Linear vs. Non-linear Learning Environments (cont.)
- Issues of Hypermedia and Non-linear experiences.

#### **Activity:**

**Begin** exploring Hypermedia development tools (Shop S-Mart) ([see course requirements](#)). **Continue** participating on the [discussion board](#).

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### February 17

- Hypermedia Tools

#### **Activity:**

**Continue** exploring Hypermedia development tools (share your thoughts about the tools you are learning on the forms in the S-Mart).

**Read** [Student Perceptions of Web-Enhanced Instruction](#).

**Share** your thoughts about this article on the [discussion board](#).

**Due: Position Paper** ([see course requirements](#)). Attach your position paper to an email to Steve Bronack ([bronacksc@appstate.edu](mailto:bronacksc@appstate.edu)).

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### February 24

- Hypermedia Tools.

#### **Activity:**

**Explore** AppEdTech as an environment in which to develop Hypermedia.

**Continue** exploring Hypermedia development tools (share your thoughts about the tools you are learning on the forms in the S-Mart).

**Continue** participating on the [discussion board](#).

**Due: Hypermaze map(s)** ([see course requirements](#)).

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### March 3

- Hypermedia Tools. (online)

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### March 10

- **Spring Break, No Class**

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### March 17

- Hypermedia Tools.
- Discussion of potential class projects.

**Activity:**

**Continue** to explore AppEdTech as an environment in which to develop Hypermedia.

**Continue** exploring Hypermedia development tools (share your thoughts about the tools you are learning on the forms in the S-Mart).

**Continue** participating on the [discussion board](#).

**Begin** developing a hypermedia version of your position paper on hypermedia ([see course requirements](#)).

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### March 24

- The Role of Hypermedia in learning settings
- Hypermedia Tools.

**Activity:**

**Share** Hypermedia version of position on the role of Hypermedia in learning settings.

**Continue** participating on the [discussion board](#).

**Work** on projects.

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### March 31

- The Role of Hypermedia in learning settings
- Hypermedia Tools.

**Activity:**

**Share** Hypermedia version of position on the role of Hypermedia in learning settings.

**Continue** participating on the [discussion board](#).

**Work** on projects.

**Due:** Hypermedia version of "Position Paper." ([see course requirements](#))

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**April 7**

- The difference between linear and non-linear formats.
- Hypermedia Tools.

**Activity:**

**Work** on projects.

**Respond** to the "*How are linear and non-linear environments different?*" question on the class [discussion board](#). Read the answers others in class give and respond to their thoughts on this question.

**Due: Establishing the Difference** ([see course requirements](#)). Email to Steve Bronack ([bronacksc@appstate.edu](mailto:bronacksc@appstate.edu)).

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**April 14**

- The difference between linear and non-linear formats (cont.).
- Hypermedia Tools.

**Activity:**

**Work** on projects.

**Continue** participating on the [discussion board](#).

**Due: Send** a summary of the your activity in **Learning the Tools** ([see course requirements](#)). Email to Steve Bronack ([bronacksc@appstate.edu](mailto:bronacksc@appstate.edu)).

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**April 21**

**Activity:**

**Share** Final Projects

**Due: Final Project**

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**April 28**

**Activity:**

**Share** Final Projects

**Due: Final Project**