

# CSE 4461 3.0 Hypermedia and Multimedia Technology (Winter 2007)

Computer Science and Engineering Department  
York University

## General Course Information

INSTRUCTOR	Theophanis (Fanis) Tsandilas, fanis @ cse.yorku.ca Office hours: TBA (or by appointment)
LECTURES	Tuesdays and Thursdays, 4-5:30pm, Health, Nursing Environmental Studies Building (HNE) 033
WEB SITE	<a href="http://www.cse.yorku.ca/course/4461">http://www.cse.yorku.ca/course/4461</a>

## Overview

This course provides a forum in which students will investigate the concepts and technologies relevant to hypertext and hypermedia applications. Students will familiarize with up-to-date literature on hypermedia systems and actively participate in classroom discussions.

The course will give a particular focus on new trends of hypermedia applications and research coming from the emergence of collaborative environments and technologies on online communities. Students will have a first-hand experience with such environments through their interaction with a *wiki*. They will use the wiki to contribute to the understanding of issues relevant to the course material, work on collaborative tasks, and participate in class discussions.

The course will begin with a review of the historical roots of hypertext and expand to various topics and applications including design methodologies, usability issues, empirical studies, digital libraries, information retrieval, adaptive hypermedia, the Semantic Web, collaborative authoring, blogging, ubiquitous hypermedia, hypermedia storytelling, and copyright issues. Course readings will focus on design and usability aspects of hypermedia. However, discussion in class will be adapted to the students' interests and expertise and will expand to technical issues as well as social implications of hypermedia applications.

Upon successful completion of this course, students will be able to:

1. Describe the issues concerning the meaning of the terms *hypertext* and *hypermedia*.
2. Identify the characteristics of hypertext and hypermedia applications and distinguish them from other software applications.
3. Access and understand the research literature on hypertext and hypermedia and describe the main research challenges and trends in this area.
4. Use hypermedia environments to participate in collaborative tasks.
5. Work on the design, implementation, and evaluation of hypermedia applications.

## Assessment

<b>Course Component</b>	<b>Weight</b>
Assignment 1	10%
Midterm Test	25%
Assignment 2	14%
Course Project	25%
Presentations	16%
Class Participation	10%
	100%

## Course Format

### Readings, Presentations and Class Discussion

There will be two 90-minute meetings per week (24 class meetings in total). Meetings will consist of one or two presentations, to be followed by class discussion. Presentations and discussion will be focused on topics/readings, usually research papers, chosen by the instructor. Students will sign up for presentation slots in the second week of class, with student-led presentations starting in the third week. The topics/readings schedule will be finalized and posted before the second week.

The role of presenter/discussion leader will rotate among students and the instructor. The presenter for a given topic must prepare a 20-minute oral presentation. The use of presentation slides (e.g., PowerPoint) and other aids (e.g., movie clips) is strongly recommended.

Readings are required for all the students and have to be done before class meetings according to the readings schedule. Class participation accounts for 10% of the final grade so students should be ready to contribute to the discussions following class presentations.

### Wiki

Course material will be organized through the course wiki. The use of the wiki will be guided by a set of goals and protocols concerning writing style and collaboration. Students will contribute to the wiki by posting the material of their presentations, writing comments, and bringing issues for class discussion. The class participation mark will be partially based on the contribution of students through the wiki. The wiki will be also used as a playground for exploring research questions and working on a collective task as part of Assignment 2.

### Course Project

The course project will focus on the design of a new hypermedia system, combining notions of collaborative writing, adaptive hypermedia, and Web communities. The instructor will provide the goals and design principles of the system and students will choose to work on a specific aspect of this system according to their interests and expertise. Students will be required to maintain a *Weblog* in order to report on the progress of their project and receive feedback from the instructor and their classmates.

## Course Calendar

The following is a tentative schedule. Topics may slightly change during the term.

		<b>Date</b>	<b>Description</b>	<b>Out</b>	<b>Due</b>
1	R	Jan 4	Course overview and definitions		
2	T	Jan 9	Historical roots of hypertext and hypermedia		
3	R	Jan 11	Introduction to the course wiki Sign-up for student presentations		
4	T	Jan 16	Models of hypermedia systems		
5	R	Jan 18	The usability of hypertext		
6	T	Jan 23	Empirical studies and navigation tools	A1	
7	R	Jan 25	Information retrieval and search engines		
8	T	Jan 30	Digital libraries		
9	R	Feb 1	Design practices		
10	T	Feb 6	The Semantic Web		A1
11	R	Feb 8	User modeling and adaptive hypermedia		

### Reading Week

12	T	Feb 20	RSS Feeds - Course material review		
13	R	Feb 22	<b>Midterm exam</b>		
14	T	Feb 27	Wikis and Wikipedia	A2	
15	R	Mar 1	Social networks		
16	T	Mar 6	Blogs		
17	R	Mar 8	Tag-based browsing		
18	T	Mar 13	Copyright issues	P	A2
19	R	Mar 15	Visualization of hypertext structures		
20	T	Mar 20	Multidimensionality and ZigZag		
21	R	Mar 22	Annotative systems		
22	T	Mar 27	Ubiquitous hypermedia		
23	R	Mar 29	Hyper-fiction		
24	T	Apr 3	Applications - Course review		
	F	Apr 13			P

A1: Assignment 1, A2: Assignment 2, P: Course project

## Course Material

**No textbook will be required** for this course. Course material is based on the scheduled readings and other material presented in the class meetings and the course wiki. Students will have access to electronic copies of the readings. Several readings will be assigned from the **ACM Digital Library**, which can be found as an “eResource” on the York Library Web site (<http://www.library.yorku.ca>). Relevant conferences with proceedings available in the ACM Digital Library are:

- Conference on Hypertext and Hypermedia (Hypertext)
- Joint Conference on Digital Libraries (JCDL)
- Conference on Human Factors in Computing Systems (CHI)
- Conference on Computer-Supported Collaborative Work (CSCW)
- Word Wide Web Conference (WWW)