

GRAD 970: Special Topics: Teaching and Learning with Multimedia

J-term session 2018: December 27, 2017 – January 19, 2018

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OFFICE HOURS: By appointment by phone

COURSE DESCRIPTION

Designing multimedia presentations that are consistent with the cognitive principles of multimedia learning has been empirically demonstrated to benefit student learning. Through the lens of cognitive load theory (CLT), we will examine Richard Mayer's cognitive theory of multimedia learning (CTML) (including, for example, coherence, signaling, segmenting, modality principles) that can be used to design any face-to-face or online presentation of to-be-learned material. Additional readings will include empirical literature demonstrating the learning benefits of multimedia presentations using several multimedia principles. The final project will be to develop an annotated multimedia lesson presentation, applying cognitive principles of multimedia learning, for a specific course that you might teach.

COURSE MATERIALS

REQUIRED TEXT:

Mayer, R. E. (2009). *Multimedia learning (2nd ed)*. New York: Cambridge University Press.

(A copy of this text may be purchased, accessed through UNH's Dimond Library Reserve desk for a hardcopy, or e-book by following this link:

<http://libproxy.unh.edu/login?url=http://unh.ebib.com/patron/FullRecord.aspx?p=424624> .)

Additional Readings will be provided through the course Canvas site.

EXPECTED STUDENT OUTCOMES

By the end of the course, students who successfully complete the course should be able to:

- *summarize* and *describe* cognitive load theory;
- *identify* and *describe* Multimedia Principles of Learning within the context of cognitive load;
- *evaluate* and *integrate* empirical research on the application of multimedia principles;
- *apply* multimedia principles to a presentation for a specific course to be taught.

COURSE WORK

ONLINE DISCUSSIONS (20 POINTS)

You will post responses to two discussion prompts on “Discussion” assignments, and respond to at least two of your colleagues’ posts for each assignment. Please carefully follow the instruction for each discussion. Thoughtful postings will be helpful to you, your classmates, and to me. In responding to posts, avoid stand-alone responses such as “well done,” “I disagree,” “bravo,” etc. Your colleagues and I are looking for what comes next—e.g., “I agree/disagree with your comment because . . .” Please take the time to prepare thoughtful and well-written postings. All of your colleagues in the course will be appreciative and the overall value of the course will be enhanced. All discussion/response prompts will be posted on our *Canvas myCourses* “Modules” tab. (You can earn up to 10 points for each of the two post/response assignments)

SLIDESHOW EXERCISE (10 POINTS)

You will modify a set of poorly designed slides (that I will provide) so that they are consistent with the CLT and the CTML. Your task will be to identify potential sources of cognitive load and provide rationale for each of the multimedia principles you used in the notes section of the slide.

GROUP SLIDESHOW PRESENTATION (15 POINTS)

You and your team members will prepare and present a brief slide presentation (7-10 slides) for a topic of your choice. In the notes section for each slide, you will describe how the elements are consistent with the CLT and the CTML, and identify and provide citations from our readings to support your use of each multimedia principle.

BRIEF WRITING ASSIGNMENTS (20 POINTS)

You will complete two brief writing assignments (2-3 double-spaced pages) related to your readings on teaching and learning with multimedia. Writing assignment details are posted on our course *Canvas myCourses* “Modules” tab. (You can earn up to 10 points for each writing assignment)

SLIDESHOW PRESENTATION FINAL PROJECT (35 POINTS)

For your final course project, you will prepare a full set of slides for a course chapter/unit you have taught or plan to teach. In the “notes” section below each slide, you will describe how the elements are consistent with the CLT and the CTML, and identify and provide citations from our readings to support your use of each multimedia principle.

GRADING YOUR BRIEF WRITING ASSIGNMENTS

I will assign a letter grade based on the following rubric:

Letter Grade	Performance
A, A-	Exceptional. Original. Excellent content and analysis.
B+	Remarkable. Excellent content and analysis. Elements of originality, synthesis—but not quite there.
B	Strong paper. Excellent content and analysis. Hints of originality and synthesis.
B-	Satisfactory. Arguments and facts present, but originality, analysis, and synthesis lacking.
C+ & Lower	Unsatisfactory

GRADING YOUR SLIDESHOW ASSIGNMENTS

I will assign a letter grade based on the following rubric:

Letter Grade	Performance
A, A-	Exceptional consideration of CLT and application of CTML.
B+	Remarkable consideration of CLT and application of CTML.
B	Very Good consideration of CLT and application of CTML.
B-	Satisfactory consideration of CLT and application of CTML.
C+ & Lower	Unsatisfactory

COURSE GRADING

Grades in the course will be based on performance on the following criteria:

Online Discussion Responses	20 possible points
Slideshow Exercise	10 possible points
Group Slideshow Presentation	15 possible points
Brief Writing Assignments	20 possible points
Final Slideshow Presentation	35 possible points
Total Points	100 possible points

Final Course Grade

A	93 – 100	B	83 - 86
A-	90 - 92	B-	80 - 82
B+	87 - 89	Not Passing	Below 80

GRAD 970 J-Term 2018 Course Schedule & Assignments

Module 1: Introduction to Cognitive Load Theory and Cognitive Theory of Multimedia Learning	
Due Dates	Assignment
1/27/17	Introduce yourself in Discussion Forum
1/2/18	Cognitive Load Theory (<i>First Writing Assignment</i>)
Module 2: Cognitive Theory of Multimedia Learning	
Due Dates	Assignment
1/4/18 (1/8/18)	First Discussion Forum: <i>Educational Implications of Cognitive Load</i> (and response)
Module 3: Multimedia Principles to Reduce Extraneous Processing	
Due Date	Assignment
1/10/18	Reducing Extraneous Processing: An Illustrated Example (<i>Second Writing Assignment</i>)
Module 4: Multimedia Principles for Managing Essential Processing	
Due Date	Assignment
1/12/18	Slideshow Exercise Assignment
Module 5: Multimedia Principles for Fostering Generative Processing	
Due Date	Assignment
1/15/18	Group Slideshow Assignment
Module 6: Individual Differences and Boundary Conditions	
Due Dates	Assignment
1/16/18 (1/17/18)	Second Discussion Forum: <i>Individual Differences and Boundary Conditions in Multimedia Presentations</i> (and response)
Final Project:	
Due Date	Assignment
1/19/2018	Slideshow Presentation Final Project

PROFESSIONAL STANDARDS/ACADEMIC HONESTY

This course is part of a professional preparation program in college teaching; therefore, students are expected to adhere to the highest ethical and professional standards. Students are expected to cooperate with one another and with the instructors, to contribute to group discussions and projects, and to represent their own work fairly and honestly. You must provide appropriate credit and citations for any ideas and/or materials that you use in your work.

The University of New Hampshire Student Rights, Rules and Responsibility defines plagiarism as the unattributed use of the ideas, evidence, or words of another person, or the conveying of the false impression that the arguments and writing in a paper are the student's own. Plagiarism includes, but is not limited to the following:

19. The term “plagiarism” includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgement. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.
(p. 4)

09.3 Plagiarism

The unattributed use of the ideas, evidence, or words of another person, or the conveying of the false impression that the arguments and writing in a paper are the student's own. Plagiarism includes, but is not limited to the following:

1. The acquisition by purchase or otherwise of a part or the whole of a piece of work which is represented as the student's own;
 2. The representation of the ideas, data, or writing of another person as the student's own work, even though some wording, methods of citation, or arrangement of evidence, ideas, or arguments have been altered;
 3. Concealment of the true sources of information, ideas, or argument in any piece of work.
- (pp. 22-23)

The University policy on academic honesty describes standards for conduct, examples of cheating and penalties, which can include failure of the course, suspension, or dismissal from the University. To avoid plagiarism, be sure to acknowledge the source, using the conventions of an appropriate academic documentation style (such as MLA and APA).

DISABILITY SERVICES FOR STUDENTS

A graduate student with a documented disability is eligible for services provided by the Disability Services for Students office. For information, visit <http://www.unh.edu/disabilityservices/>