University of Massachusetts at Boston
College of Advancing and Professional Studies
Critical & Creative Thinking Program

Syllabus

CRCRTH 670: Thinking, Learning, and Computers

Fall 2013, online section (Class # 9434)

Instructor: Jeremy Szteiter
email: Jeremy.Szteiter@umb.edu
Phone: (617) 942-3580, or Skype: jeremyszteiter
Office: Wheatley Hall 2nd Floor, room W02-157
Office/phone call hours: contact the instructor for an appointment

Course Format

Instructor-led, online course using Blackboard Learn 9.1. In your Blackboard course list, our course is called "CRCRTH 670 OL CE1 01 Thinking Learning and Computers Fall 2013".

Catalog Description

This course considers the consequences of using computers to aid our thinking, learning, communication, and action in classrooms, organizations, and social interactions. Class activities acquaint students with specific computer-based tools, the ideas and research behind them, and themes for critical thinking about these ideas and tools.

Additional Course Information

This course provides a framework for considering the implications of computers and digital technology as we use them in our thinking, learning, communication, and action in classrooms, organizations, and social interactions. Class activities engage students to understand and experience the relationships among these concepts, reflect upon their meaning, and then develop their own framework toward applying the concepts to practice in desired areas of work or life. The course will acquaint students with some specific computer-based tools, the ideas and research behind them, and themes for critical thinking about these ideas and tools. Having said so, the focus of this course is on the interdisciplinary connection between computers and thinking and learning, rather than on mastering and applying specific educational technologies or Web 2.0 tools, for example, such developing blogs to support classroom learning.

We will focus on the idea of information literacy in particular, as we seek to understand the growing complexity that is taking place in the way that computers and digital technology influence, and are influenced by, thinking and learning. This includes the need to use critical thinking skills to make sense of the enormous amount of information (and views into the wider world) that becomes accessible through computers, as well as the way that various formats of information and computer-based resources might support thinking and learning. We consider computers in contexts such as collaborative thinking,

developing personal and cultural identity in the digital age, and observing ways that digital interactions complement and influence interpersonal interactions.

Notes about Preparation Assumed for this Course

Students do not need expert technical skill with computers to engage in this course, however, they should be willing to explore and experiment with a variety of new tools and processes that may be unfamiliar. The purpose of this course is not to gain mastery of technical tools, but rather to discover if and how such tools may uncover new ways of viewing the world through computers and how that may influence our thinking. Also, use of computer-based technologies within personal or professional settings will provide a foundation to engage in critical thinking and reflection; such reflection may involve contexts such as collaborative thinking, application to education and other fields, and understanding of selves in a digital culture.

Key Links

Blackboard login: https://umb.umassonline.net/
(course will be accessible to students upon the course start date)

Reference and Tutorials for Blackboard Learn:
http://www.umb.edu/it/getting_services/support_for_online_courses_blackboard/blackboard_learn_9_student_support
(includes links to additional tutorials and reference guides as well as tech. support contact information)

Online Support:
http://umb.echelp.org/
1-855-789-7053

Course Goals

- Develop an understanding of how computers may influence critical and creative thinking and learning within professional and personal life, including both the benefits and possible limitations of this influence
- Establish a framework for defining information literacy within your area of educational, professional, and/or personal life and define the role of computers and digital technology within that framework
- Experience and explore a number of specific personal and collaborative computer-based resources that create new possibilities for thinking and exploring relationships between ideas, and determine how and when it is appropriate to use them in your own work
- Develop strategies for assessing how new advancements in computers influence thinking and learning and develop plans to apply these strategies in your ongoing work, life, and learning

Texts and Materials

There are no books to be purchased for this course. All readings will be available in digital formats within the course.

Our live meetings through Wimba/Skype/Google+ Hangout will require the use of speakers and a microphone. It is recommended that you use high-quality headset earphones with a built-in microphone, which eliminates feedback and noise that tend to be present when using desktop speakers and microphones. Many laptops have built-in speakers and microphones and are designed to eliminate this problem.

Course Communication

All course communications will occur through the Messages feature of Blackboard. If you would like to send a message to an individual in the course, including the instructor, please use the Messages link in the course menu. Please use direct email only as a backup if you cannot access the course for some reason.

Schedule of Course Sessions

Generally, we will move through four themes related to thinking, learning, and computers. The broad topics are included below. Because of the nature of this course and the frequent changes in computers and digital technology in society, we may adjust how we approach some topics throughout the semester and in response to any current events that are relevant to key issues of the course.

Theme 1: Thinking Through Information Literacy

We explore the idea of information literacy with respect to the way that abundant information becomes accessible through computer-based resources, and how the access to information allowed by computers has the potential to influence thinking and learning. In particular, we seek to relate critical thinking to information literacy by extending the idea of simply finding and evaluating information to understanding how computers, digital consumption, and the span of digital media, allow us to experience different ways of knowing. Additionally, we will consider how the connections between information and thinking can introduce us to the possibilities of new practices in working, learning, and living. An issue at the core of our inquiry is how to develop a strategy and practices for handling information made available to us through digital resources, especially with the likelihood that information access and availability will continue to evolve quickly in ways that we may not yet anticipate.

Week 1: Thinking Through Information Literacy, Part 1 (Sept. 9-15)
Week 2: Thinking Through Information Literacy, Part 2 (Sept. 16-22)
Week 3: Thinking Through Information Literacy, Part 3 (Sept. 23-29)

Theme 2: Computers, Collaboration, and Connectivism

Particularly due to the expansion of the Internet and World Wide Web, computers become powerful resources for connecting with others on a number of levels. Building upon themes of information literacy, we will consider how our thinking and learning are influenced when we can access not only the basic information of the world but also the minds of others across wide regions and communities aided by computers. In doing so, we will examine the nature of collaboration involving tools and systems that bring us in contact with others in ways that can lead to changes in how we think and learn, when

compared to traditional ways of connecting with people. An issue at the core of our inquiry is the way that the computer enables new social connections, and the implications to thinking and learning.

Week 4: Computers, Collaboration, and Connectivism, Part 1 (Sept. 30-Oct. 6)
Week 5: Computers, Collaboration, and Connectivism, Part 2 (Oct. 7-13)
Week 6: Computers, Collaboration, and Connectivism, Part 3 (Oct. 14-20)
Week 7: Computers, Collaboration, and Connectivism, Part 4 (Oct. 21-27)

Theme 3: Computers in Learning, Teaching, and Beyond

In addition to the way that computers can support collaborative thinking, they can also be used as specific tools that can shape information in ways that allow us to view it differently and find unique understanding. Computers present information not only in the form of the written word but also through a number of visual representations. Also, many computer applications and resources claim to directly support learning and even enhance critical and creative thinking. We will explore this idea and examine if, why, and how computers try to accomplish this in ways that are not possible in non-computer approaches. Rather than addressing matters of educational technology, where we might focus on the mechanics of how to implement educational curricula through computer-based learning and teaching tools, we instead focus on developing an ethic for the "why" and "when" of using computers in learning, teaching, and other fields when consequences on thinking and learning are at stake. An issue at the core of our inquiry is the potential of maximizing improvements to thinking and learning by making appropriate choices around computer use in educational and professional endeavors, and with the idea that we are all learners and teachers.

Week 8: Computers in Learning, Teaching, and Beyond, Part 1 (Oct. 28-Nov. 3)
Week 9: Computers in Learning, Teaching, and Beyond, Part 2 (Nov. 4-10)
Week 10: Computers in Learning, Teaching, and Beyond, Part 3 (Nov. 11-17)

Theme 4: Computers, Minds, and Brains

Trends and advancements in thinking, learning, and computers often raise questions of "intelligence", where computers are designed to mimic the problem-solving and decision-making ability of people, and then go beyond it. We will examine what happens as computers are designed to represent human thinking and then may even offer insights into what is not yet understood about human thinking. We'll also imagine how the culture of thinking and learning might change as computer technology becomes more integrated into life. An issue at the core of our inquiry is the opportunity for individuals and communities to take ownership of the degree to which we do our own thinking or employ computers to do it for us.

Week 11: Computers, Minds, and Brains, Part 1 (Nov. 18-24)
Week 12: Computers, Minds, and Brains, Part 2 (Nov. 25-Dec. 1)
Week 13: Computers, Minds, and Brains, Part 3 (Dec. 2-6; note that the last week of the course is a shortened one on the university's academic calendar)

Course Meetings

As required by UMass Boston for fully online courses, our course will have occasional live-voice ("synchronous") meetings (probably no more than about 5 sessions throughout the semester, including online presentations related to the Expert Project assignment). These will be scheduled after the semester begins, based on feedback from students about availability. Attendance is required, but it will be possible to complete an alternative make-up assignment if you are not able to attend a given meeting. Connecting by voice with others in the course is a helpful approach to developing our class community, so everyone is strongly encouraged to try to attend. These sessions will take place through either Wimba (in Blackboard), Skype (requires free account), or Google+ Hangout (requires account in Google/Gmail).

Weekly Class Structure

Our course is organized into weekly modules, which begin on Monday morning at 9:00am Eastern time, and the materials for each module will only become available to students at that time. Each week, we will participate in some activities that support the topics and themes described above. Each weekly module has 3 main segments:

Prereading Activities: These activities serve as an introduction to the week's topic, often involving you directly in using computer-based tools, giving you space to reflect on what you already know and believe, and providing a warm-up to the topic. These activities vary based on the topic. The Prereading Activities will always total 25 points each week.

Readings: These are a set of articles and/or book chapters that provide research, news on current events, and commentary on the weekly topic. Typically, around 1-4 required articles will be assigned each week, and there may be times when you are asked to choose a few out of several options as they match your particular interest.

Postreading Activities: These activities serve to help you process the readings and engage with others to develop your understanding of thinking, learning, and computers. These will typically include some kind of written response to the readings and/or discussion board assignment and other activities that encourage you to build further upon what you have learned. The Postreading Activities will total 40 points each week.

Assignments and Grading

Assignments are submitted by either directly typing your work into Blackboard or by submitting files as attachments within Blackboard. For written work, Microsoft Word documents (.doc or .docx) are preferred, but some other common or open formats are acceptable, such as .odf or .rtf files. If you use Apple iWork software, please export/save your work in .doc format before submitting.

Assignments for a given weekly module will typically be due on the following Monday at 9:00am ET, which is when the next module opens (although some assignments will have extended due dates more than one week ahead). Generally, any prereading or postreading assignments that are completed by the due date and meet the given standards are given full credit. If there are parts of assignments that are not given full credit, you may always revise and resubmit the work to gain additional points. Assignments will be returned in Blackboard, sometimes including instructor comments as feedback.

Please read these comments, as they will indicate what else is needed if you have not received full credit.

For assignments involving discussion board responses, use the idea of "value-added" as a rule of thumb. It is not enough to write on a discussion post that you agree or disagree with someone else – explain why and include an example if possible. Anything that you post must add value to the discussion.

Late Assignment Policy

Assignments turned in on time: eligible for full credit
Assignments turned in within two days beyond the due date (that is, after Monday at 9:00am but before Wednesday at 9:00am ET): eligible for half credit
Assignments turned in after two days beyond the due date: no credit

Exception: parts of assignments that involve discussion boards (writing your own posts, reading and responding to others). Such assignments are time sensitive because they become much less meaningful if completed after the due date when others are no longer likely to have a chance to read them. In these cases, points awarded are full credit for on-time completion, and no credit if any amount of time late.

If you turn in a completed assignment on time but do not receive full credit, you may resubmit at any point throughout the semester. There is no fixed due date for resubmissions as long as you turned it in on time initially.

The nature of some of the assignments may shift during the semester, based on student interest and any emerging innovations that may become apparent in the computer/digital world, but amount of work will stay within the quantity suggested by the point system below. Everyone has lives and responsibilities outside of the course, so we acknowledge that online learning can require both time and patience. Please inform the instructor about any concerns or questions that you may have about completing the work.

Course Points and Grading

weekly: 25 points (prereading) + 40 points (postreading) = 65 points/week x 13 weeks = 845 points
Mid-term reflection paper = 55 points (see Special Projects below)
Final project = 100 points (see Special Projects below)
= 1000 TOTAL POINTS

Grading: minimum points for A = 928, A- = 902, B+ = 876, B = 848, B- = 822, C+ = 796, C = 768

Special Projects

Two special projects will be assigned in addition to the weekly activities and will be described in full later in the semester:

Mid-term Reflection Paper (1200 words): This assignment will be due around the middle of the semester and involve a written reflection (an essay that raises some issues about your experience in the course and developing ideas). You will submit a written paper that reflects upon the first half of the course,

including your perspective on the course material and the course itself, questions or challenges that you have faced, and/or further explorations of concepts that you have found particularly meaningful.

Expert Project (1000-1200 word essay + portfolio of exhibits + brief presentation) Throughout the course, you will work toward an expertise of a specific concept related to thinking, learning, and computers and build a portfolio that represents your growing understanding, with the intent that the portfolio would be useful as a learning resource to be used by someone who wished to teach or learn about your concept. The components of the project will include an essay to be submitted at the end of the semester, a brief presentation on your work during a Wimba session to be held during the second half of the semester, and a portfolio of exhibits that you will develop throughout the semester, which might include some (but not necessarily all) of the following exhibits: an annotated bibliography of references, a lesson plan to be used in a workshop, an instructional video that gives a demonstration of the resource, a digital story that conveys something about the concept, a web site or wiki page that builds a collection of knowledge about the resource, a creative product that teaches someone about the concept, and many others. You will create the portfolio and share this with others in the course.

Several of the Prereading and Postreading activities directly help you to take steps toward the Expert Project, so you will have space to explore your topic in flexible ways while also completing some assignments to serve as guideposts to your progress.

Reflective Practice Portfolio

Either the Mid-term Reflection Paper, or the Expert Project essay component may be appropriate for students in the Critical and Creative Thinking program to be used for that program's required Reflective Practice Portfolio. Other options might also be acceptable based on directions taken toward the Expert Project.

Course Evaluation

At the end of the course, you will be asked to complete an anonymous, online course evaluation (http://bit.ly/CCTEval) as required by the Critical and Creative Thinking program. This evaluation is in addition to any other general evaluations requested of you by the university or College of Advancing and Professional Studies.

Accommodation Statement

Sections 504 and the Americans with Disabilities Act of 1990 offer guidelines for curriculum modifications and adaptations for students with documented disabilities. If applicable, students may obtain adaptation recommendations from the Ross Center (617-287-7430). The student must present these recommendations to each professor within a reasonable period, preferably by the end of the Drop/Add period.

Instructor Background and Experience

Jeremy Szteiter is a graduate of Carnegie Mellon University (Cognitive Science) and University of Massachusetts Boston (Critical and Creative Thinking) and now serves as the Assistant Director of the graduate program in Critical and Creative Thinking at UMass Boston. His work has centered on teaching

and program development, particularly in adult education settings within community-based human services organizations; this work has involved managing, developing, and teaching programs to lifelong learners and performing research around teaching practices, non-profit organizational development, and technology. Jeremy's work draws upon principles and practices of social change pedagogy, technology-enhanced collaboration, instructional design, and participatory theater.

Syllabus Version

August 2013; This syllabus is subject to change and updated versions may be distributed after the course begins, but the workload expectations will not be increased after the semester starts.