

Education & Computers
Fall 2013
05:300:350:02 - 3 Credits
Index #: 27885
Instructor: Brent Horbatt

Class Meetings: Tuesdays: Sept. 3, 2013 – Dec. 10, 2013 4:30-7:30 P.M.

Classroom: GSE building, room 208

Office: GSE building, room 207a

Office Hours: By appointment, after class

Office Phone: (732)932-7496 x8227

E-mail Address (Preferred): brent.horbatt@gse.rutgers.edu

Course Website: <https://ecollege.rutgers.edu>

Required Reading:

Richardson, Will: *Blogs, Wikis, Podcasts, and Other Powerful Web Tools for Classrooms*. Third Edition. Thousand Oaks, California. 2010. ISBN # 978-1-4129-7747-0

Various linked scholarly articles (linked in each day's homework assignments)

Course Description: (as notated in the GSE Catalog)

Education and Computers establishes a foundation for using the computer and technology in a variety of educational settings across all subject areas. The course is hands-on in nature, with focus on current trends. Additionally, learners can expect to discuss theory, practice, and social/philosophical issues related to the use of computers in education. Some familiarity with computers is recommended; no prior computer skills are required.

Organization:

This is a hands-on course in which the topics are covered in the book/reading assignments, in short lectures, and on the computer. Readings and lectures are critical and will be discussed both in class and online. Computer skills are not a pre-requisite to this course; all computer-based assignments will be graded on content rather than technical skill. Ample class time will be given for working on computer-based assignments to ensure that learners have access to computer-based, peer-based, and instructor-based technical help where necessary.

By the end of the course, you should be able to:

- Demonstrate a foundation for using computers and technology effectively in the classroom.
- Improve understanding of computers and technology (both hardware and software) as necessary to support the first goal.
- Discuss advantages and limitations of computers and computer-based technologies in the classroom.
- Understand how teachers plan effective learning activities with computers and computer-enhanced technologies.
- Use computers and computer-enhanced technologies to support professional growth.
- Demonstrate an understanding of the roles of teaching standards such as the NJCCCS for Technology, NETS-T, and NETS-S in teaching and learning.
- Develop students' 21st century learning skills using computer-enhanced technology.
- Employ basic principles of multimedia design for educational activities.
- Establish familiarity with trending topics in technology and provide assessment (both highlights and pitfalls) of those trends as they relate to learning and teaching.
- Provide discourse on the social, ethical, and legal issues surrounding the use of technology in learning and teaching.
- Examine and reconsider knowledge and beliefs about the role of technology in the classroom.

Grading:

Grading will be on a 100 point scale:

A	90 - 100 points
B+	87 - 89 points
B	80 - 86 points
C+	77 - 79 points
C	70 - 76 points
D	60 - 69 points
F	0 - 59 points

Grading Policies:

Care, respect and integrity are expected in written and classroom exchanges. All written work, including postings on E-companion, should be proofread for clarity, spelling, and grammatical errors. Please use language that is appropriate for the classroom setting and maintain a professional tone in both your E-college postings and classroom discussions. Outside sources, in **any assignment**, must be referenced appropriately. (APA or Chicago style is acceptable)

Graded assignments cannot be missed except in case of a serious issue. If you miss an assignment for another reason, it is at my discretion whether or not to allow a make-up. If there are questions or an assignment cannot be completed, contact me as soon as possible. Illness will require a doctor's note. Missing any assignment without a sufficient reason will result in a grade of 0 for that portion of the course. Certain late assignments may be accepted for partial credit as outlined in the assignment itself.

Online Portfolio Project: (15 points) This project will demonstrate the use of the web and web tools to create a teaching portfolio online. It is designed to not only learn about web publishing, but provide the benefit of creating an online resource that can be used in a future job search. Ample class time will be assigned to work on this project. **The Online Portfolio link is due in the course dropbox by November 4th.** Specific details will follow in class.

School Board Group Project (15 points): You are to present to a hypothetical school board about some aspect of technology that makes use of your principles and techniques. Your job is to convince the board to consider something new. Class time will be assigned to work on this project. **The presentations will be held on December 10th.** Specific details will follow in class.

Current Events (15 points): This is an individual presentation activity. Current events are critically important in technology. New ideas and innovations are introduced on a daily basis. You are to find an article and share your findings with the class. **Current events are assigned on a weekly basis beginning 9/17.** Specific details will follow in class.

Online discussion will be used on the E-Companion website to discuss the reading and lectures. **(10 points + 3 points extra credit)**

- You will be credited for participating if you have posted **TWO** comments to each week's reading thread by the due date.
- You may post to any or all of the topics under that reading thread as long as you post at least twice for each assigned due date.
- There are a total of 13 threaded discussions, and you may miss up to three weeks' worth to allow for technical issues, illness, etc. If you complete all 13, you will receive 3 points extra credit. Do not use missed posts for anything but a serious issue - You may need them later!
- Posts should be proofread for clarity, spelling, and grammar. Please use language that is appropriate for the classroom setting and maintain a professional tone.
- You must provide support for your posts for full credit. In other words, you cannot say simply, "I agree", you must say why you agree to receive credit.
- **Responses are due on the dates (Monday evenings) assigned by 9 P.M.** Earlier responses are encouraged to facilitate discussion amongst your classmates and to avoid technical issues that can crop up at the last minute.

In-Class Assignments (5 points + 2 points extra credit)

Occasionally, there will be short activities assigned to go along with a week's topic. There are a total of 4 days where in-class assignments are assigned, and you may miss one with no penalty. If you complete all 4 of the in-class assignments, you will receive 2 points extra credit. **In-class assignments will be held on 9/3, 9/17, 9/24 and 10/1.** Specific details will follow in class.

Quizzes (20 points): There will be three short quizzes with multiple choice, fill in the blank and open-ended questions during the semester. The quizzes will cover material covered in class, readings, and current events. **Quizzes will be held on 10/8, 11/5, and 12/3.** Specific details will follow in class.

Final Essay (20 points): There is a culminating paper assignment that fulfills the SAS Core standard ITR y. This assignment is designed to help learners understand the use of web-based tools that assist a teacher in completing research necessary for their work. **The final essay is due in the e-Companion dropbox by 11:59 P.M. on 12/10.** Specific details will follow in class.

	<p>SAS Core Curriculum Learning Goals Met by this Course: ITR y</p> <p>For list of Core Curriculum learning goals, see: http://sas.rutgers.edu/component/docman/doc_download/413-summary-of-new-core-curriculum-learning-goals</p> <p>For a list of Core Certified courses by learning goal, see http://sasundergrad.rutgers.edu/core :http://sasundergrad.rutgers.edu/academics/requirements/core?layout=blog</p>
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I am here to listen if you have any questions and concerns. You can reach me via e-mail at brent.horbatt@gse.rutgers.edu, office phone, or through the E-Companion website. The course requires effort on your part and your grade will reflect that effort. This course is primarily about learning and teaching. I want you to see and understand the technological tools available to educators. More importantly, I want you to leave the class with new instructional strategies that promote higher order thinking skills. Most of all, I want this to be an enjoyable and enriching experience for you.

Academic Integrity:

All issues of academic integrity are referred to the Rutgers University policy on academic integrity. This policy can be found in detail on the University website at: <http://teachx.rutgers.edu/integrity/policy.html>.

I expect that you will comply with standards of academic integrity in this course. Assignments should be your own work, except in the case of a required group product. The consequence for violating policies of academic integrity and other elements of the student code of conduct are serious and can have a tremendous negative impact on your academic progress and future career.

Absence Policy:

Students are expected to attend all classes; if you expect to miss one or two classes, please use the University absence reporting website <https://sims.rutgers.edu/ssra/> to indicate the date and reason for your absence. An email is automatically sent to me.

Disability Policy:

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation:

<https://ods.rutgers.edu/students/documentation-guidelines>

If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at:

<https://ods.rutgers.edu/students/registration-form>

Teaching Standards:

This course will be based heavily upon ISTE NETS standards located here:

<http://www.iste.org/standards.aspx>

In addition, the course addresses the following New Jersey Professional Teaching Standards as they relate **specifically to the area of computers and technology**. You can find the complete listing of NJPTS here:

<http://www.state.nj.us/education/profdev/profstand/standards.pdf>

Subject Matter Knowledge

Teachers know and understand:

1.4: Concepts inherent in numeracy to enable students to represent physical events, work with data, reason, communicate mathematically, and make connections within their respective content areas in order to solve problems.

Teachers value and are committed to:

1.6: Enthusiasm for the discipline(s) they teach and in making connections to everyday life.

Teachers engage in activities to:

1.8: Make effective use of multiple representations and explanations of disciplinary concepts that capture key ideas and link them to students' prior understanding.

1.9: Evaluate teaching resources and curriculum materials for their completeness, accuracy and usefulness for representing particular ideas and concepts.

Human Growth and Development

Teachers know and understand:

2.1: How students construct knowledge, acquire skills and develop habits of mind and how to use instructional strategies that promote student learning.

Teachers value and are committed to:

2.5: The belief that all children and adolescents bring talents and strengths to learning.

2.6: Appreciation for multiple ways of knowing.

Teachers apply:

2.9: Learning theory to accommodate differences in student intelligence, perception, cognitive style and achievement levels.

Diverse Learners

Teachers know and understand:

3.4: The negative impact of bias, prejudice, and discrimination on students and society.

Instructional Planning and Strategies

Teachers know and understand:

4.1: How to plan instruction based on students' needs, developmental progress and prior knowledge.

4.2: Available and appropriate resources and materials for instructional planning.

4.3: Techniques for modifying instructional methods, materials and the environment to help all students learn.

4.4: A variety of instructional approaches and the use of **various technologies**, to promote thinking and understanding.

Teachers value and are committed to:

4.5: The development of students' critical thinking, independent problem-solving and performance capabilities.

Teachers engage in activities to:

4.6: Identify and design instruction appropriate to students' stage of development, learning styles, strengths and needs.

4.10: Plan and develop effective lessons by organizing instructional activities and materials, incorporating a wide range of community and **technology resources**, to promote achievement of lesson objectives.

Assessment

Teachers engage in activities to:

5.7: Enhance their knowledge of learners and evaluate students' progress and performance using a variety of formal and informal assessment techniques to modify teaching and learning strategies.

Learning Environment

Teachers know and understand:

6.2: How the classroom environment influences learning and promotes positive behavior for all students.

Teachers value and are committed to:

6.4: The role of students in promoting each other's learning and recognize the importance of peer relationships in creating a climate of learning.

6.6: The expression and use of democratic values in the classroom.

Teachers engage in activities to:

6.7: Maintain a learning community in which students assume responsibility for themselves and one another, participate in decision-making and work collaboratively and independently.

6.12: Prepare students for and monitor independent and group work that allows for full and varied participation of all individuals.

Special Needs

Teachers engage in activities to:

7.7: Meet the needs of all learners by using a wide range of teaching techniques to accommodate and modify strategies, services and resources, **including technology**.

Communication

Teachers know and understand:

8.1: The power of communication in the teaching and learning process.

Teachers engage in activities to:

8.7: Model effective communication strategies and questioning techniques in conveying ideas and stimulating critical thinking.

Collaboration and Partnerships

Teachers know and understand:

9.9: Institute parent/family involvement practices that support meaningful communication, parenting skills, enriched student learning, volunteer and decision-making opportunities at school and collaboration to strengthen the teaching and learning environment of the school.

Professional Development

Teachers know and understand:

10.1: How education research and **other methods of inquiry** can be used as a means for continuous learning, self assessment and development.

Teachers value and are committed to:

10.3: Professional reflection, assessment and learning as an ongoing process.

10.4: Collaboration with colleagues to give and receive help.

Sep 3, 2013	Class 1
Class Agenda	<ul style="list-style-type: none"> • Introductions • Syllabus • Discuss “Poor Scholar’s Soliloquy”. • Introduction to web evolution as it pertains to teaching • Definition of educational technology • NJCCCS and ISTE standards <p>In-class assignment: Intro to VoiceThread. Create a brief introduction and include a picture on the VoiceThread site. (2 points)</p>
Homework Due: 9/09/2013	Richardson, Chapter 1: The Read/Write Web Read the New Jersey Core Content Curriculum Standards for Technology (2009). Skim over the standards to familiarize yourself with the main ideas. http://www.state.nj.us/education/cccs/standards/8/index.html Read the ISTE NETS-T standards for teachers: http://www.iste.org/standards/nets-for-teachers In-class activity: Complete VoiceThread introduction activity by 9 P.M. on 9/09/2013. (2 points) Use the discussion tool on the E-college site to discuss the reading. Two posts must be submitted by 9 P.M. on 9/09/2013. (1 point)
Sep. 10, 2013	Class 2
Class Agenda	<ul style="list-style-type: none"> • Theoretical foundations • Presentations with Google Docs • Discussion of the Current Events project (15 points)
Homework Due: 9/16/2013	Ayas, C: An Examination of the Relationship between the Integration of Technology into Social Studies and Constructivist Pedagogies. Turkish Online Journal of Educational Technology. Jan 2006. 12 pp. (Available in the “doc sharing” section of eCollege) Hung, D: <i>Theories of Learning and Computer-Mediated Instructional Technologies</i> . Educational Media International, v38 p281-87 Dec 2001. (Click on link above, login to ERIC, and click on “PDF Full Text”.) Use the discussion tool on the E-Companion site to discuss the readings. Two posts must be submitted by 9 P.M. on 9/16/2013. (1 point)

Sep. 17, 2013	Class 3
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Introduction to computer hardware • Hardware functions in the classroom • Demonstration of interactive whiteboard • In-class activity: Build a computer! (2 points)
Homework Due: 9/23/2013	Strickland, J: What's inside my computer? How Stuff Works: A Discovery Company. (Click on link above to read article) Wetschler, E: Going Out of Print District Administration: Solutions for School District Management. Feb. 2011 Use the discussion tool on the E-Companion site to discuss the readings. Two posts must be submitted by 9 P.M. on 9/23/2013. (1 point)
Sep. 24, 2013	Class 4
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Introduction to computer software • In-Class Activity: Scratch (2 points extra credit)
Homework Due: 9/30/2013	DeKanter, N: Gaming Redefines Interactivity for Learning TechTrends: Linking Research & Practice to Improve Learning, p26-32 May-Jun 2005. (Click on link above, login to ERIC, and click on "PDF Full Text".) Use the discussion tool on the E-Companion site to discuss the reading. Two posts must be submitted by 9 P.M. on 9/30/2013. (1 point)
Oct. 1, 2013	Class 5
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Introduction to computer networking • Begin discussion of Online Portfolio Project (15 points) • In-Class activity: OnGuard! Games (1 point)
Homework Due: 10/07/2013	Tyson, J: How Internet Infrastructure Works How Stuff Works: A Discovery Company. (Click on link above to read article) Study for quiz (Covers classes 1-5) Use the discussion tool on the E-Companion site to discuss the reading. Two posts must be submitted by 9 P.M. on 10/07/2013. (1 point)

Oct. 8, 2013	Class 6
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Weblogs in the classroom • Quiz (Covers classes 1-5; 7 points) • Continue Introduction to the Online Portfolio Project (15 points)
Homework Due: 10/14/2013	<p>Richardson, Chapter 2: Weblogs: Pedagogy and Practice</p> <p>Richardson, Chapter 3: Weblogs: Get Started!</p> <p>Use the discussion tool on the E-Companion site to discuss the reading. Two posts must be submitted by 9 P.M. on 10/14/2013. (1 point)</p>

Oct. 15, 2013	Class 7
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Wikis in the classroom • Discussion of RSS • Online Portfolio Project cont'd (Widgets, Embedded tools, RSS)
Homework Due: 10/21/2013	<p>Richardson, Chapter 4: Wikis: Easy Collaboration for all</p> <p>Richardson, Chapter 5: RSS: The new killer app for Educators</p> <p>Continue work on your online portfolio.</p> <p>Use the discussion tool on the E-Companion site to discuss the reading. Two posts must be submitted by 9 P.M. on 10/21/2013. (1 point)</p>

Oct. 22, 2013	Class 8
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Audio/visual technology & effective classroom use • Online photo galleries • Online Portfolio Project cont'd (Image editing, slideshows, YouTube)
Homework Due: 10/28/2013	Richardson, Chapter 7: Fun with Flickr: Creating, Publishing and Using Images online Peters, D: Mayer's Principles for the design of Multimedia Learning . Sep. 2005. (Click on link above to read article) Continue work on your online portfolio. Use the discussion tool on the E-Companion site to discuss the reading. Two posts must be submitted by 9 P.M. on 10/28/2013. (1 point)

Oct. 29, 2013	Class 9
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Discussion of Web 2.0 multimedia (Podcasting, screencasting, live streaming and more) • Online Portfolio Project cont'd (Podcasting, Soundcloud, phone-based recordings)
Homework Due: 11/4/2013	Richardson, Chapter 8: Podcasting, Video and Screencasting and Live streaming: Multimedia Publishing for the Masses. Online portfolio hyperlink due via course dropbox by 11/4/13 at 9 P.M. (15 points) Study for quiz (Covers classes 6-9) Use the discussion tool on the E-Companion site to discuss the reading. Two posts must be submitted by 9 P.M. on 11/4/2013. (1 point)

Nov. 5, 2013	Class 10
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Uses of social media in the classroom; social bookmarking • Using technology to meet the needs of diverse students • Quiz (Covers classes 6-9; 7 points) • Introduction to the School Board Group Project (15 points)
Homework	Richardson, Chapter 6: The Social Web: Learning Together.
Due: 11/11/2013	<p>Richardson, Chapter 9: Social networks: Facebook, Ning, Connections and Communities</p> <p>Shah, N: Special Education Pupils Find Learning Tool in iPad Applications Education Week, v30 n22 p1, 16-17 Mar 2013. 3 pp. (Click on link above, login to ERIC, and click on "PDF Full Text".)</p> <p>Begin work on the group project.</p> <p>Use the discussion tool on the E-Companion site to discuss the reading. Two posts must be submitted by 9 P.M. on 11/11/2013. (1 point)</p>

Nov. 12, 2013	Class 11
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Discuss final paper assignment (20 points) • Distance learning • Continue work on School Board project
Homework	McKee, T: Thirty Years of Distance Education: Personal Reflections . Int'l Review of Research in Open and Distance Learning, v11 n2 p100-109 May 2010. 10 pp. (Click on link above, login to ERIC, and click on "Full Text From ERIC".)
Due: 11/25/2013	<p>Pape, L: Blended Teaching and Learning. Education Digest: Essential Readings Condensed for Quick Review, v76 n2 p22-Oct 2010. 6 pp. (Click on link above, login to ERIC, and click on "PDF Full Text".)</p> <p>Continue work on the group project.</p> <p>Begin work on final paper assignment.</p> <p>Use the discussion tool on the E-Companion site to discuss the reading. Two posts must be submitted by 9 P.M. on 11/25/2013. (1 point)</p>

Nov. 19, 2013	No class! (Rutgers observes a "Thursday" schedule on 11/19)
Class Agenda	Happy Thanksgiving!

Nov. 26, 2013	Class 12
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Legal, social, and ethical issues associated with implementing technology in schools • Continue work on School Board project
Homework Due: 12/2/2013	<p>Read article: Lawrence, S. <i>Teachers Should Know Copyright from Wrong</i> 2008.</p> <p>Tarman, B: <i>The Digital Divide in Education</i>. Paper presented at the Annual International Standing Conference for the History of Education. (Sao Palo, Brazil, Jul 2003). Read pp. 1-12, then 18-24.</p> <p>Continue work on the group project.</p> <p>Continue work on final paper assignment.</p> <p>Study for quiz (Covers classes 10-12)</p> <p>Use the discussion tool on the E-Companion site to discuss the reading. Two posts must be submitted by 9 P.M. on 12/2/2013. (1 point)</p>

Dec. 3, 2013	Class 13
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Wrap-up of the Richardson text • Emerging technology • Quiz (Covers classes 10-12; 6 points) • Wrap-up work on the School Board Project
Homework Due: 12/09/2013	Richardson, Chapter 10: What it All Means Jenkins, H: Confronting the Challenges of Participatory Culture . MacArthur Foundation. 2009. Read the Partnership for 21 st Century Skills whitepaper: http://www.p21.org/documents/aacte_p21_whitepaper2010.pdf Read P21's New Jersey's assessment: http://www.p21.org/documents/NJ_2_pager_01_10.pdf Complete work on the group project. Continue work on final paper assignment. Use the discussion tool on the E-Companion site to discuss the reading. Two posts must be submitted by 9 P.M. on 12/09/2013. (1 point)

Dec. 10, 2013	Class 14
Class Agenda	School Board Project presentations (15 points)
Homework	Final paper assignment due in eCollege dropbox 12/10/2013 by midnight (20 points)