Course Syllabus
Education and Computers
05:300:350:02 - 3 Credits
Index #: **43674**
Instructor: Brent Horbatt

Class Meetings: Thursdays: Jan. 24, 2013 –May 2, 2013   4:30-7:30 P.M.
Final Exam: May 15th, 2013 – 4:00 P.M. to 7:00 P.M.

Classroom: GSE building, room 208
Office: GSE building, room 207a

Office Hours: By appointment, after class

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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, 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.
- 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.
- 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.

Online Portfolio Project: This project will demonstrate the use of the web and web tools to create a teaching portfolio online. It is designed to teach learners how to publish to the web for learning and teaching with the added benefit of creating an online resource that can be used in a future job search. Ample time class time will be given to work on this project. **The Online Portfolio link is due in the course dropbox by April 10th.** Details to follow in class.

School Board Group Project: Presentation that should be 20 minutes in length. You are to present to a hypothetical school board about some aspect of technology with a developed lesson plan that makes use of your principles and techniques. Your job is to convince the board to consider something new. Class time will be given to work on this project. **The presentations will be May 2nd.** Details to follow in class.

Current Events: 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. Details to follow in class.

In-Class assignments: Four of the class periods in the beginning of the course will have arranged activities to supplement the week's topic. Specifics for each week's activity will come in class.

Online discussion will be used on the E-Companion website to discuss the reading and lectures. 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. Reponses are due on the dates assigned by 9 P.M. Earlier responses are encouraged to facilitate discussion amongst your classmates.

Final Exam: The final exam will cover the lectures, supplemental readings, and the Richardson text. In addition, it will cover some of the current events presented in class. Questions will be posed in multiple choice and fill in the blank format. Essay test questions will come directly from online discussions. **The final exam will be May 15th 4:00 - 7:00 P.M.**

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.

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

Online Portfolio Project: **20 Points**

School Board Group Project: **20 Points**

Current Events: **15 points**

Online Discussion/E-Companion: **12 Points (10 + 2 points extra credit)**

In-Class Assignments: **7 points (5 + 2 points extra credit)**

Mid-Term Exam: **15 points**

Final Exam: **15 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)

Exams: The exams cannot be missed except in case of a serious issue. If you must miss the exam for another reason, it is at my discretion whether or not to allow a make-up. If for any reason you cannot attend the exam, contact me as soon as possible. Illness will require a doctor's note. If a make-up exam is required, it must be taken as soon as possible. Missing an exam without a sufficient reason will result in a grade of 0 for that portion of the course.

Online Portfolio: The Online Portfolio project must be completed by the due date. Plenty of class time will be given for this project. In the case of a serious issue, the same rules apply as do with the exams. The project must be completed as soon as possible. 1 point will be lost for each day the portfolio is late.

School Board Project: This is a group assignment and it too cannot be missed by any members of the group. If a group member must miss, the same rules apply as do the exams. Rather than a make-up, the group member must write a short paper showing his or her understanding of what the group did (Full guidelines will be provided if needed). Group members may not miss more than one class period during the project. Group members may not miss the presentation day. If there is an issue in your group, let me know as soon as the issue arises. Missing the presentation without a sufficient reason will result in a grade of 0 for that portion of the course.

Current Events: You will be scheduled to present your current event project in advance, and it cannot be missed except in the case of a serious issue. Because the current events project is scheduled ahead of time, rescheduling or forgetting is not an option. If you must miss the presentation for another reason, it is at my discretion whether or not to allow a makeup. If for any reason you cannot attend class on your scheduled day, contact me as soon as possible. Illness will require a doctor's note. If a makeup current event is required, it must be presented on the date of my choosing.

Online Discussion Thread: Online discussion is due at 9 PM on the due dates indicated on the course site. Discussion will include questions based upon the reading that was assigned for the previous classes. 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 post **TWICE** in each unit for full credit. 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. There are a total of 12 threaded discussions, and you may miss two weeks' worth of posts. If you complete all 12, you will receive 2 points extra credit. Do not use missed posts for anything but a serious issue - You may need them later!

In-Class Assignments: Occasionally, there will be short activities assigned to go along with a week's topic. These are essentially attendance/participation grades. 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.

Disability Policy:
Rutgers, the State University of New Jersey abides by the Americans with Disabilities Act of 1990, the Americans with Disabilities Act Amendments (ADAA) of 2008, and Sections 504 and 508 which mandate that reasonable accommodations be provided for qualified students with disabilities and accessibility of online information. If you have a disability and may require some type of instructional and/or examination accommodation, please contact me early in the semester so that I can provide or facilitate in providing accommodations you may need. If you have not already done so, you will need to register with the Office of Disability Services, the designated office on campus to provide services and administer exams with accommodations for students with disabilities. The Office of Disability Services is located in Lucy Stone Hall, Livingston Campus, 54 Joyce Kilmer Ave., Suite A145, phone number 848-445-6800. I look forward to talking with you soon to learn how I may be helpful in enhancing your academic success in this course. http://disabilityservices.rutgers.edu/docs/faculty-handbook.pdf

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.

Teaching Standards:
This course will is 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.

Jan. 24, 2013	Class 1
Class Agenda	- Introductions - Syllabus - Discuss "Poor Scholar's Soliloquy". - Introduction to web evolution as it pertains to teaching - Definition of educational technology - NJCCCS and ISTE standards **In-class assignment:** Intro to VoiceThread. Create a brief introduction and include a picture on the VoiceThread site. **(2 points)**
Homework Due: 1/30/2013	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 **1/30/2013**. **(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 1/30/2013. (1 point)**

Jan. 31, 2013	Class 2
Class Agenda	- Theoretical foundations - Introduction to Google Docs - Discussion of the Current Events project **(15 points)**
Homework Due: 2/06/2013	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: *Theories of Learning and Computer-Mediated Instructional Technologies.* 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 2/06/2013. (1 point)**

Feb. 07, 2013	Class 3
Class Agenda	- Current events presentations - Introduction to computer hardware - Hardware functions in the classroom - Demonstration of interactive whiteboard (tentative) - In-class activity: Build a computer! (**2 points**)
Homework Due: 2/13/2013	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 2/13/2013. (1 point)**

Feb. 14, 2013	Class 4
Class Agenda	- Current events presentations - Introduction to computer software - Guest speaker: Assistive technology (tentative) - In-Class Activity: Scratch (**2 points extra credit**)
Homework Due: 2/20/2013	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 2/20/2013. (1 point)**

Feb 21, 2013	Class 5
Class Agenda	- Current events presentations - Introduction to computer networking - In-Class activity: OnGuard! Games (**1 point**)
Homework Due: 2/27/2013	Tyson, J: *How Internet Infrastructure Works* How Stuff Works: A Discovery Company. (Click on link above to read article) **Use the discussion tool on the E-Companion site to discuss the reading. Two posts must be submitted by 9 P.M. on 2/27/2013. (1 point)**

Feb. 28, 2013	Class 6
Class Agenda	• Current events presentations • Weblogs in the classroom • Introduction to the Online Portfolio Project (**20 points**)
Homework Due: 3/13/2013	Study for exam Richardson, Chapter 2: Weblogs: Pedagogy and Practice Richardson, Chapter 3: Weblogs: Get Started! There will be discussion questions which you are responsible for on the exam; they are due **3/13** for this week (**1 point**)

Mar. 07, 2013	Class 7
Class Agenda	• Current Event Presentations • **Mid-term Exam (15 points)** • Continue work on the Online Portfolio
Homework Due: 3/13/2013	**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 3/13/2013. (1 point)**

Mar. 14, 2013	Class 8
Class Agenda	• Current events presentations • Wikis in the classroom • Discussion of RSS • Online Portfolio Project cont'd (Widgets, Embedded tools, RSS)
Homework Due: 3/27/2013	Richardson, Chapter 4: Wikis: Easy Collaboration for all Richardson, Chapter 5: RSS: The new killer app for Educators **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 3/27/2013. (1 point)**

Mar. 21, 2013	
Class Agenda	**No Class: Have a great spring break!**
Homework Due: 03/27/2013	Richardson, Chapter 4: Wikis: Easy Collaboration for all Richardson, Chapter 5: RSS: The new killer app for Educators **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 3/27/2013. (1 point)**

Mar. 28, 2013	Class 9
Class Agenda	- Current events presentations - Audio/Visual technology and effective classroom use - Online photo galleries - Online Portfolio Project continued (Images: editing, slideshows, YouTube)
Homework Due: 4/3/2013	Richardson, Chapter 7: Fun with Flickr: Creating, Publishing and Using Images online Mayer, R; R. Moreno: *A Cognitive Theory of Multimedia Learning: Implications for Design Principles*. Pp: 1-5. UNM.edu. 1998. (Click on link above to read article) 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 4/3/2013. (1 point)**

Apr. 4, 2013	Class 10
Class Agenda	- 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: 4/10/2013	Richardson, Chapter 8: Podcasting, Video and Screencasting and Live streaming: Multimedia Publishing for the Masses. **Online portfolio due via course dropbox by 04/10/13 at 9 P.M. (20 points)** **Use the discussion tool on the E-Companion site to discuss the reading. Two posts must be submitted by 9 P.M. on 04/10/2013. (1 point)**

Apr. 11, 2013	Class 11
Class Agenda	- Current events presentations - Uses of social media in the classroom; social bookmarking - Introduction to the School Board Group Project (**20 points**)
Homework Due: 04/17/2013	Richardson, Chapter 6: The Social Web: Learning Together. Richardson, Chapter 9: Social networks: Facebook, Ning, Connections and Communities **Begin work on the group project.** **Use the discussion tool on the E-Companion site to discuss the reading. Two posts must be submitted by 9 P.M. on 04/17/2013. (1 point)**

Apr. 18, 2013	Class 12
Class Agenda	- Current events presentations - Using technology to meet the needs of diverse students - Distance learning - Additional class time for School Board Group Project
Homework Due: 04/24/2013	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".) 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".) 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".) **Continue work on the group project.** **Use the discussion tool on the E-Companion site to discuss the reading. Two posts must be submitted by 9 P.M. on 04/24/2013. (1 point)**

Apr. 25, 2013	Class 13
Class Agenda	- Current events presentations - Wrap-up of the Richardson text - Legal, social, and ethical issues associated with implementing technology in schools - Emerging technology - Additional class time for School Board Group Project
Homework Due: 05/01/2013	Richardson, Chapter 10: What it All Means Tarman, B: *The Digital Divide in Education*. 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. Jenkins, H: *Confronting the Challenges of Participatory Culture*. MacArthur Foundation. 2009. Read the Partnership for 21st 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 Read article: Lawrence, S. *Teachers Should Know Copyright from Wrong* 2008. **Continue work on the group project.** **Use the discussion tool on the E-Companion site to discuss the reading. Two posts must be submitted by 9 P.M. on 05/01/2013. (1 point)**

May. 02, 2013	Class 14
Class Agenda	**School Board Project presentations – (20 points)**

May 15, 2013	Class 15 (4:00 – 7:00 P.M.)
Class Agenda	**Final Exam - (15 points)**