

Course Syllabus

Education and Computers

05:300:350:02 - 3 Credits

Index #: **29030**

Instructor: Brent Horbatt

Class Meetings: September 8, 2011 – December 12, 2011 4:30-7:30 P.M.

Office: GSE building, room 207a

Office Hours: By appointment, after class

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Course Pages: <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 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.

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 is due at the end of class on October 24th.** Details and rubric to follow in class.

School Board Group Project: Presentation that should be 20-30 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. Ample class time will be given to work on this project. **The presentations will be December 5th.** Details and rubric 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 seemingly daily basis. You are to find an article and share your thoughts. Details and rubric to follow 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 day'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. Responses are due on the dates assigned by 9 P.M. Earlier responses are encouraged to facilitate discussion amongst your classmates.

Exams: The exams will cover the lectures and the Richardson text. In addition, they will cover terms introduced and some of the current events presented in class. Questions will be posed in multiple choice and fill in the blank format. Written test questions will come directly from online discussions. **The mid-term exam will be October 17th. The final exam will be December 12th.**

I am here to listen if you have any questions and concerns. You can reach me via e-mail at brent.horbatt@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+	86 - 89 points
B	80 - 85 points
C+	76 - 79 points
C	70 - 75 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: **15 Points**

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 (either APA or Chicago style is acceptable)

Exams: The exam 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. Group members may not miss more than one class period during the project. 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. **I will be dropping two posts from your final grade, so if you must miss one unit's questions, you can still get 100% for this assignment.** Do not use your missed posts for anything but a serious issue - You may need it later!

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 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.

Schedule:

Sept. 8, 2011	Class 1
Class Agenda	<ul style="list-style-type: none">• Introductions• Lab Rules• Syllabus• Discuss “Poor Scholar’s Soliloquy”.• Brief introduction to Web evolution as it pertains to teaching• Definition of Educational Technology• Discussion of 21st century skills• NJCCCS and ISTE standards <p>In-class assignment: Intro to E-College site. Create a brief introduction and include a picture on the E-Companion site.</p>
Homework Due: 9/11/2011	<p>Richardson, Chapter 1: The Read/Write Web.</p> <p>Read the New Jersey Core Content Curriculum Standards for Technology (2009). Skim over the standards to familiarize yourself with the main ideas. https://www13.state.nj.us/NJCCCS/ContentAreaView_Technology.aspx</p> <p>Read the ISTE NETS-T standards for teachers: http://www.iste.org/Libraries/PDFs/NETS_for_Teachers_2008_EN.sflb.ashx</p> <p>Read the Partnership for 21st Century Skills whitepaper: http://www.p21.org/documents/aacte_p21_whitepaper2010.pdf</p> <p>Read P21’s New Jersey’s assessment: http://www.p21.org/documents/NJ_2_page_01_10.pdf</p> <p>Use the discussion tool on the E-college site to discuss the reading. Post must be submitted by 9 P.M. on 9/11/2011.</p>

Sept. 12, 2011	Class 2
Class Agenda	<ul style="list-style-type: none"> • Theoretical foundations • How to use ERIC • Weblogs in the curriculum? • Introduction to Google Docs • Discussion of the Current Events project
Homework Due: 9/18/2011	Richardson, Chapter 2: Weblogs: Pedagogy and Practice. Richardson, Chapter 3: Weblogs: Get Started! Ayas, C: <u><i>An Examination of the Relationship between the Integration of Technology into Social Studies and Constructivist Pedagogies</i></u> . Turkish Online Journal of Educational Technology. Jan 2006. 12 pp. (Click on link above, login to ERIC, and click on "Full Text from ERIC".) Hung, D: <u><i>Theories of Learning and Computer-Mediated Instructional Technologies</i></u> . 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. Post must be submitted by 9 P.M. on 9/18/2011.
Sept. 19, 2011	Class 3
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Introduction to Wikis in the classroom • Introduction to the Online Portfolio Project
Homework Due: 9/25/2011	Richardson, Chapter 4: Wikis - Easy Collaboration for All. Use the discussion tool on the E-Companion site to discuss the readings. Post must be submitted by 9 P.M. on 9/25/2011.

Sept. 26, 2011	Class 4
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Introduction to RSS • Online Portfolio Project continued (Widgets, Embedded tools, RSS)
Homework Due: 10/02/2011	Richardson, Chapter 5: RSS - The new killer app for Educators. Use the discussion tool on the E-Companion site to discuss the reading. Post must be submitted by 9 P.M. on 10/02/2011.

Oct. 3, 2011	Class 5
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Online photo galleries • Online Portfolio Project continued (Images: Photoshop, slideshows, Video: Windows media, YouTube, Ustream Live video)
Homework Due: 10/09/2011	Richardson, Chapter 7: Fun with Flickr: Creating, Publishing and Using Images online. Use the discussion tool on the E-Companion site to discuss the reading. Post must be submitted by 9 P.M. on 10/09/2011.

Oct. 10, 2011	Class 6
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Audio/Visual technology and effective classroom use • Discussion of Web 2.0 multimedia (Podcasting, Screencasting, Live streaming and more) • Online Portfolio Project cont'd (Audacity, Podcasting, Soundcloud)
Homework	Study for Exam

Oct. 17, 2011	Class 7
Class Agenda	<ul style="list-style-type: none"> • Mid-Term Exam • Online Portfolio Project cont'd
Homework Due: 10/23/2011	<p>Richardson, Chapter 8: Podcasting, Video and Screencasting and Live streaming: Multimedia Publishing for the Masses.</p> <p>Mayer, R: <i>Cognitive Theory of Multimedia Learning</i>. Learning-Theories.com. 2001. (Click on link above to read article)</p> <p>Peters, D: <i>Mayer's Principles for the design of Multimedia Learning</i>. Sep. 2005. (Click on link above to read article)</p> <p>Use the discussion tool on the E-Companion site to discuss the reading. Post must be submitted by 9 P.M. on 10/23/2011.</p>

Oct. 24, 2011	Class 8
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Uses of social media in the classroom; social bookmarking • Introduction to computer hardware • Hardware functions in the classroom • Online Portfolio Project due by end of class
Homework Due: 10/30/2011	Richardson, Chapter 6: The Social Web: Learning Together. 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 reading. Post must be submitted by 9 P.M. on 10/30/2011.

Oct. 31, 2011	Class 9
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Wrap-up of the Richardson text • Software in the classroom • Introduction to the School Board Group Project
Homework Due: 11/06/2011	Richardson, Chapter 9: Social networks: Facebook, Ning, Connections and Communities Richardson, Chapter 10: What it all Means 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. Post must be submitted by 9 P.M. on 11/06/2011.

Nov. 07, 2011	Class 10
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Using technology to meet the needs of diverse students • Introduction to networking and how the Internet works • Demonstration of interactive whiteboard • Additional class time for School Board Group Project
Homework Due: 11/13/2011	Shah, N: Special Education Pupils Find Learning Tool in iPad Applications Education Week, v30 n22 p1, 16-17 Mar 2011. 3 pp. (Click on link above, login to ERIC, and click on "PDF Full Text".) 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. Post must be submitted by 9 P.M. on 11/13/2011.

Nov. 14, 2011	Class 11
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Thinkfinity • Distance learning • Additional class time for School Board Group Project
Homework Due: 11/27/2011	McKee, T: Thirty Years of Distance Education: Personal Reflections . International 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".) What Characterizes a Successful Online Learner? Concordia University Tips for Being a Successful Online Learner . University of Wisconsin at Stevens Point Use the discussion tool on the E-Companion site to discuss the reading. Post must be submitted by 9 P.M. on 11/27/2011.

Nov. 21, 2011	NO CLASS: UNIVERSITY OBSERVES WEDNESDAY SCHEDULE
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Nov. 28, 2011	Class 12
Class Agenda	<ul style="list-style-type: none"> • Current events presentations • Legal, social, and ethical issues associated with implementing technology in schools • Emerging technology • Additional class time for School Board Group Project
Homework Due: 12/04/2011	<p>Jenkins, H: <u>Confronting the Challenges of Participatory Culture</u>. MacArthur Foundation. 2009.</p> <p>Tarman, B: <u>The Digital Divide in Education</u>. 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>Use the discussion tool on the E-Companion site to discuss the reading. Post must be submitted by 9 P.M. on 12/04/2011.</p>

Dec. 5, 2011	Class 13
Class Agenda	School Board Project presentations

Dec. 12, 2011	Class 14
Class Agenda	Final Exam