

Course Syllabus

Education & Computers

Fall 2014

05:300:350:02 - 3 Credits

Index #: **07378**

Instructor: Brent Horbatt

Class Meetings: Mondays: Sep. 8, 2014 – Dec. 8, 2014 4:30-7:30 P.M.

Classroom: GSE building, room 208

Office: GSE building, room 207a

Office Hours: By appointment, after class

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

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

Prerequisites: None

Mode of Instruction: Lecture (with online supplements)

Permission required: No

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 articles (linked in each day's homework assignments below)

Course Description: (as it appears 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.

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>

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.
- Demonstrate an understanding of the roles of teaching standards such as the NJCCCS for Technology, NETS-T, and NETS-S in teaching and learning.
- Apply technology to develop students' 21st Century literacy skills, higher order skills, and creativity.
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.
- Use computers and computer-enhanced technologies to support professional growth.

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 (either 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.

E-mail policy: Course updates and other important communication will occasionally be e-mailed to you. **You are responsible for all course-related e-mail**, so please check your mail regularly, and be sure you are not losing messages to a spam box. The course website on eCollege is populated with your e-mail address as it stands in the University directory at the time when you enroll in the course. If you change your address or you prefer a different address than the one the University has on record, you can change it by reading the instructions here: <https://onlinelearning.rutgers.edu/updating-email-in-ecollege>

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 9th.** 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 8th.** 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 9/22/2014.** 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 (Sunday 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 9/8, 9/22, 9/29, and 10/6.** 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 10/13, 11/10, and 12/1.** 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 12/12.** 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. 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. Refer to <http://academicintegrity.rutgers.edu/integrity.shtml> for a full explanation of policies.

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>

The course addresses the following **New Jersey Professional Teaching Standards**. You can find the complete listing of NJPTS here:

<http://www.state.nj.us/education/code/current/title6a/chap9.pdf>

Standard One: Learner Development. The teacher understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.

i. Performances:

2) The teacher creates developmentally appropriate instruction that takes into account individual learners' strengths, interests, and needs and that enables each learner to advance and accelerate his or her learning

iii. Critical Dispositions:

2) The teacher is committed to using learners' strengths as a basis for growth, and their misconceptions as opportunities for learning

Standard Two: Learning Differences. The teacher uses understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.

i. Performances:

3) The teacher designs instruction to build on learners' prior knowledge and experiences, allowing learners to accelerate as they demonstrate their understandings

ii. Essential Knowledge:

6) The teacher knows how to access information about the values of diverse cultures and communities and how to incorporate learners' experiences, cultures, and community resources into instruction.

iii. Critical Dispositions:

1) The teacher believes that all learners can achieve at high levels and persists in helping each learner reach his or her full potential

Standard Three: Learning Environments. The teacher works with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self-motivation.

i. Performances:

2) The teacher develops learning experiences that engage learners in collaborative and self-directed learning and that extend learner interaction with ideas and people locally and globally

ii. Essential Knowledge:

1) The teacher understands the relationship between motivation and engagement and knows how to design learning experiences using strategies that build learner self-direction and ownership of learning;

2) The teacher knows how to help learners work productively and cooperatively with each other to achieve learning goals

iii. Critical Dispositions:

3) The teacher is committed to supporting learners as they participate in decision-making, engage in exploration and invention, work collaboratively and independently, and engage in purposeful learning; and

4) The teacher seeks to foster respectful communication among all members of the learning community.

Standard Four: Content Knowledge. The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches, particularly as they relate to the Common Core Standards and the New Jersey Core Curriculum Content Standards and creates learning experiences that make these aspects of the discipline accessible and meaningful for learners to assure mastery of the content.

i. Performances:

1) The teacher effectively uses multiple representations and explanations that capture key ideas in the discipline, guide learners through learning progressions, and promote each learner's achievement of content standards

7) The teacher uses supplementary resources and technologies effectively to ensure accessibility and relevance for all learners

iii. Critical Dispositions:

1) The teacher realizes that content knowledge is not a fixed body of facts but is complex, culturally situated, and ever evolving. He or she keeps abreast of new ideas and understandings in the field

Standard Five: Application of Content. The teacher understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.

i. Performances:

1) The teacher develops and implements projects that guide learners in analyzing the complexities of an issue or question using perspectives from varied disciplines and cross-disciplinary skills

ii. Essential Knowledge:

4) The teacher understands how to use digital and interactive technologies for efficiently and effectively achieving specific learning goals

iii. Critical Dispositions:

3) The teacher values flexible learning environments that encourage learner exploration, discovery, and expression across content areas

Standard Six: Assessment. The teacher understands and uses multiple methods of assessment to engage learners in examining their own growth, to monitor learner progress, and to guide the teacher's and learner's decision-making.

i. Performances:

4) The teacher engages learners in understanding and identifying quality work and provides them with effective descriptive feedback to guide their progress toward that work;

5) The teacher engages learners in multiple ways of demonstrating knowledge and skill as part of the assessment process

Standard Eight: Instructional Strategies. The teacher understands and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways

i. Performances:

7) The teacher engages learners in using a range of learning skills and technology tools to access, interpret, evaluate, and apply information

ii. Essential Knowledge:

3) The teacher knows when and how to use appropriate strategies to differentiate instruction and engage all learners in complex thinking and meaningful tasks;

4) The teacher understands how multiple forms of communication (oral, written, nonverbal, digital, and visual) convey ideas, foster self-expression, and build relationships;

5) The teacher knows how to use a wide variety of resources, including human and technological, to engage students in learning

iii. Critical Dispositions:

3) The teacher is committed to exploring how the use of new and emerging technologies can support and promote student learning

The course addresses the following Council for the Accreditation of Education Professionals (2013). You can find the complete listing of CAEP standards here: <http://www.state.nj.us/education/code/current/title6a/chap9.pdf>

Standard #2: Learning Differences. The teacher uses understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.

Standard #3: Learning Environments. The teacher works with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self-motivation.

Standard #5: Application of Content. The teacher understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.

Standard #8: Instructional Strategies. The teacher understands and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways.

Standard #9: Professional Learning and Ethical Practice. The teacher engages in ongoing professional learning and uses evidence to continually evaluate his/her practice, particularly the effects of his/her choices and actions on others (learners, families, other professionals, and the community), and adapts practice to meet the needs of each learner.

Sep. 8, 2014	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>
<p>Homework</p> <p>Due: 9/14/2014</p>	<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. http://www.state.nj.us/education/cccs/standards/8/index.html</p> <p>Read the ISTE NETS-T standards for teachers: http://www.iste.org/standards/nets-for-teachers</p> <p>In-class activity: Complete VoiceThread introduction activity by 9 P.M. on 9/14/2014. (2 points)</p> <p>Use the discussion tool on the E-college site to discuss the reading. Two posts must be submitted by 9 P.M. on 9/14/2014. (1 point)</p>
Sep. 15, 2014	Class 2
Class Agenda	<ul style="list-style-type: none"> • Theoretical foundations • Presentations with Google Docs • Discussion of the Current Events project (15 points)
<p>Homework</p> <p>Due: 9/21/2014</p>	<p>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)</p> <p>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”.)</p> <p>Use the discussion tool on the E-Companion site to discuss the readings. Two posts must be submitted by 9 P.M. on 9/21/2014. (1 point)</p>

Sep. 22, 2014	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: 9/28/2014	<p>Strickland, J: What's inside my computer? How Stuff Works: A Discovery Company. (Click on link above to read article)</p> <p>Wetschler, E: Going Out of Print District Administration: Solutions for School District Management. Feb. 2011</p> <p>Use the discussion tool on the E-Companion site to discuss the readings. Two posts must be submitted by 9 P.M. on 9/28/2014. (1 point)</p>
Sep. 29, 2014	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: 10/5/2014	<p>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".)</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 10/5/2014. (1 point)</p>
Oct. 6, 2014	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: 10/12/2014	<p>Tyson, J: How Internet Infrastructure Works How Stuff Works: A Discovery Company. (Click on link above to read article)</p> <p>Study for quiz (Covers classes 1-5)</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 10/12/2014. (1 point)</p>

Oct. 13, 2014	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: 10/19/2014	Richardson, Chapter 2: Weblogs: Pedagogy and Practice Richardson, Chapter 3: Weblogs: Get Started! Use the discussion tool on the E-Companion site to discuss the reading. Two posts must be submitted by 9 P.M. on 10/19/2014. (1 point)

Oct. 20, 2014	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: 10/26/2014	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 10/26/2014. (1 point)

Oct. 27, 2014	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: 11/2/2014	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 11/2/2014. (1 point)

Nov. 3, 2014	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: 11/9/2014	<p>Richardson, Chapter 8: Podcasting, Video and Screencasting and Live streaming: Multimedia Publishing for the Masses.</p> <p>Online portfolio hyperlink due via course dropbox by 11/9/2014 at 9 P.M. (15 points)</p> <p>Study for quiz (Covers classes 6-9)</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 11/9/2014. (1 point)</p>
Nov. 10, 2014	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 Due: 11/16/2014	<p>Richardson, Chapter 6: The Social Web: Learning Together.</p> <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 11/16/2014. (1 point)</p>

Nov. 17, 2014	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 Due: 11/23/2014	<p>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".)</p> <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 11/23/2014. (1 point)</p>

Nov. 24, 2014	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: 11/30/2014	<p>Read article: Lawrence, S. Teachers Should Know Copyright from Wrong 2008.</p> <p>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.</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 11/30/2014. (1 point)</p>

Dec. 1, 2014	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: 12/7/2014	Richardson, Chapter 10: What it All Means Jenkins, H: <i>Confronting the Challenges of Participatory Culture</i> . 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_page_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 12/7/2014. (1 point)

Dec. 8, 2014	Class 14
Class Agenda	School Board Project presentations (15 points)
Homework	Final paper assignment due in eCollege dropbox 12/12/2014 by midnight (20 points)