

Course Syllabus
Education & Computers
Summer 2014
05:300:350:H1 - 3 Credits
Index #: 03168
Instructor: Brent Horbatt

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

Class Schedule: July 7, 2014 – August 13, 2014

Class meeting times: There are no in-person class meetings, nor are there any required synchronous activities. All work is to be completed by assigned due dates.

Office: Graduate School of Education building, room 207a

Office Hours: By appointment, in-person, and virtually on GoToMeeting. I will e-mail you to let you know when I will be holding virtual chat/office hours.

Contact information:

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

Office Phone: (not checked daily) (848)932-7496 x20771

Prerequisites: None

Mode of Instruction: Online, asynchronous

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 (found in the course schedule on eCollege)

You will also need access to a microphone that can hook to your computer and a digital camera to participate in some of the multimedia portions of the class. Inexpensive microphones can be purchased for fewer than 10 dollars that will do the trick. If there are any problems obtaining a digital camera please let me know. Cell phone cameras & microphones are usually fine. If you live locally you may be able to borrow one; if you wish to purchase one I can provide a recommendation.

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.

Overall Course Goals

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

- Provide 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 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.
- Apply technology to develop students' 21st Century literacy skills, higher order skills, and creativity.

Organization: The course is broken up into six modules so that you can focus on identified topics as we move through the course. The first three modules are designed to help you acquire knowledge of theory, background, and the various technology used. The second three modules of the course put theory into practice and allow you to apply technology. There will be an overarching web site project that runs the length of the course. It will parallel the modules we are studying and you'll fold the information you've learned in each module into that final project. There is a culminating paper assignment that fulfills the SAS Core standard ITR y

Please check in often! Each module will have several activities and I anticipate you working on something most days. I've included a course checklist in the schedule so you'll know what is due when. Each module includes its own page that shows due dates and helps you stay organized. I may make updates to the modules as the course moves forward. These changes will be for clarity's sake. Assignments are set in stone, so if you work ahead you will not be penalized.

You'll need to start thinking about the project & the final essay as soon as you start the course. Take a look at the project page, located on the left-hand navigation bar on the eCollege site. You'll need to create a web site by the end of the course and I'd like that site to reflect your interests so that it is meaningful to you and is something you can use after the course ends.

Please read the "[The Traits of a Successful Online Learner](#)" before you get started. This will help you to understand what is expected of a student taking this course.

Ground Rules: Summer courses are intense! We have a lot of material to cover; (15 weeks' worth in only 5 weeks' time). If you are finding the work to be overwhelming, let me know sooner rather than later. Remember, this course will require a total of 45 hours "meeting" time along with additional reading/study time.

The great thing about the course is that it is online, so you can choose when you can get the work done. This makes your learning very independent. To help you budget your time and understand my expectations, let me explain what this course is replacing. I have taught the summer/winter section face-to-face for many years now. In the past, we met 3 nights a week, 3 hours a day. Reading was assigned outside of classroom hours. I have designed the course in such a way that you'll need to be checking in often (almost daily).

My advice is to get things done earlier rather than later. The reason for this is simple. Things happen. Your computer can crash. The power might go out. We have to get a lot of material covered in a short amount of time. It's best not to wait to the last minute. As Murphy's Law states: Anything that can go wrong WILL! If something does go wrong, contact me right away. ALWAYS back-up all data. That means having at least 2 copies of work on different storage media. **It is your responsibility to make sure you have working equipment and a plan of action if you have problems.**

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 [course 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.

Assignments, Activities, and Projects:

There are three primary ways in which I will assess your learning in this course:

- 1) Each course module will have assignments and activities. These will count for 40% of the final grade.
- 2) There will be an overarching web site project that will run during the length of the course. This web site will count for 40% of your final grade.
- 3) The SAS core standard assignment/final paper will run over several modules. This assignment will count for 20% of your final grade.



SAS Core Curriculum Learning Goals Met by this Course: **ITR y**

For list of Core Curriculum learning goals, see:

http://sas.rutgers.edu/component/docman/doc_download/413-summary-of-new-core-curriculum-learning-goals

For a list of Core Certified courses by learning goal, see:

<http://sasundergrad.rutgers.edu/core>

Module	Objective	Dates Assigned
Module 1	Why should we use technology in our classrooms?	7/07 – 7/13
Module 2	Overview of the tools: Hardware and software as they apply to the classroom	7/14 – 7/20
Module 3	Networking and the Internet	7/21 – 7/27
Module 4	Using Technology for Communication & Collaboration	7/28 – 8/3
Module 5	Multimedia for Learning	8/4 – 8/10
Module 6	Integrating Technology into the Classroom	8/4 – 8/13

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

Grades for each assignment will be posted in the "gradebook" tool on the eCollege web site as soon as they are complete.

Grading Policies: Care, respect, and integrity are expected in written and classroom exchanges. All written work, including postings on eCollege 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 discussion postings and assignments. 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.

Late Policy: Any assignment in this course will be accepted late with a penalty of 1 point per day the assignment is late.

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://academicintegrity.rutgers.edu>. 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.

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.

<p>Jul. 7th to Jul. 13th</p>	<p>Module 1: Why should we use technology in our classrooms? The purpose of this module is to examine learning theory and apply that theory to support the use of technology in the classroom.</p>
<p>Agenda</p>	<ul style="list-style-type: none"> • Introductions • Syllabus • FAQ Questions • Learning for the 21st Century • Technology Standards • Theoretical Foundations • Project Proposal
<p>Assignments</p>	<ul style="list-style-type: none"> • Read the syllabus. If you have any questions about the course, you can e-mail me, ask on the FAQ Questions or ask in the Virtual Office Hour (I will e-mail you to let you know when I will be holding chat/office hours) • Read: The Traits of a Successful Online Learner • Watch my presentation on theoretical foundations. • Read the Partnership for 21st Century Skills whitepaper: http://www.p21.org/storage/documents/aacte_p21_whitepaper2010.pdf • Read the New Jersey Core Content Curriculum Standards for Technology (2009). (pp 1-4). Skim over the standards (pp. 5-20) to familiarize yourself with the main ideas. http://www.state.nj.us/education/cccs/standards/8/index.html • Read/Browse ISTE's NET standards: http://www.iste.org/standards • Read the following: 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. • Read the following: 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".) • Introductions (due 11:59 PM, July 13th; 3 points participation grade) • Participate in a threaded discussion (due 11:59 PM, July 13th; 2 points – 1 point for each posting) • Web site project proposal (due 11:59 PM, July 13th; 6 points)

Jul. 14th to Jul. 20th	Module 2: Overview of the tools: Hardware and software as they apply to the classroom: The purpose of this module is to learn about both hardware and software and how they contribute to the classroom.
Agenda	<ul style="list-style-type: none"> • Hardware overview • Software overview • Project rubric
Assignments	<ul style="list-style-type: none"> • Read article: Strickland, J: What's inside my computer? How Stuff Works: A Discovery Company. (Click on link above to read article) • Read article: 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".) • Read article: Wetschler, E: Going Out of Print District Administration: Solutions for School District Management. Feb. 2011. • Watch the hardware presentation and software presentation. • Watch SMARTboard device demonstration . • Participate in a question & answer threaded discussion (Question and answer discussion due July 20th at 11:59 PM; 2 points participation grade - 1 point for each posting) • Software Evaluation (due July 20th at 11:59 PM; 4 points) • Web site project rubric (due July 20th at 11:59 PM; 7 points) • Begin work on the final essay assignment: Utilize web-based tools to find and research classroom resources (due August 13th at 11:59 P.M.; 20 points)

<p>Jul. 21st to Jul. 27th</p>	<p>Module 3: Networking and the Internet: The purpose of this module is to look at the fundamentals of networking. The module will examine ways in which networking and the Internet have changed learning & teaching. In addition, the module will look at site safety and validity.</p>
<p>Agenda</p>	<ul style="list-style-type: none"> • Introduction to basic networking • Web evolution as it pertains to teaching • Safety and validity online
<p>Assignments</p>	<ul style="list-style-type: none"> • Read article: Tyson, J: How Internet Infrastructure Works How Stuff Works: A Discovery Company. • Read Richardson Ch. 1: The Read/Write Web • Read over "Information Literacy Resources" provided by Alan November. Take a look at some of the sites and identify what might be false or misleading. • OnGuard Online! is a site by the Federal Trade Commission that breaks down complex security issues into simple explanations, games and videos. Take a look around! • GetNetWise is a site that has a lot of information for children regarding their privacy and security. There are plenty of things that are applicable to everyone and anything for kids. Must read for teachers using the web in their classrooms. • Chose and play three games on the "OnGuard" site. When you complete a game, take a screen shot and send it to me. Further directions are available by clicking here. (due 11:59 PM July 27th; 3 points participation grade) • Complete the "critical navigation skills" activity (blog portion due July 24th by 11:59 PM. Following response component due July 27th by 11:59 PM; 4 points) • Participate in a threaded discussion (due 11:59 PM July 27th; 2 points participation grade - 1 point for each posting) • Basic web site project (due 11:59 PM on July 27th; 8 points) • Continue work on the final essay assignment: Utilize web-based tools to find and research classroom resources (Due 11:59 PM on August 13th; 20 points)

<p>Jul. 28th to Aug. 3rd</p>	<p>Module 4: Using Technology for Communication & Collaboration: Lev Vygotsky said that learning is the result of collaboration to construct common cores of knowledge. This module discusses ways in which technology can support Vygotsky's ideas.</p>
<p>Agenda</p>	<ul style="list-style-type: none"> • Appreciate the changes and challenges presented by “Participatory Culture” in today’s digital society. • Learn about blogs, wikis, and other social media and how such tools might be used in the classroom • Discuss issues in implementation of such tools in the classroom.
<p>Assignments</p>	<ul style="list-style-type: none"> • Read article: Jenkins, H. <i>Confronting the Challenges of Participatory Culture</i>. MacArthur Foundation. 2009. • Read Richardson Ch. 2: Weblogs in Pedagogy and Practice • Read Richardson, Ch. 3: Weblogs: Getting Started • Read Richardson, Ch. 4: Wikis: Easy Collaboration for All • Read Richardson, Ch. 6: The Social Web: Learning Together • Participate in a threaded discussion (due 11:59 PM August 3rd; 2 points participation grade - 1 point for each posting) • Complete wiki letter to parents group assignment (due 11:59 PM August 3rd; 7 points) (Other intermediate interactions REQUIRED BEFORE THE DUE DATE with your group. See the project link for more detail.) • Interactive component of the web site project & give partner feedback (due 11:59 PM on August 3rd; 5 points) • Continue work on the final essay assignment : Utilize web-based tools to find and research classroom resources (Due 11:59 PM on August 13th; 20 points)

<p>Aug. 4th to Aug. 10th</p>	<p>Module 5: Multimedia for Learning: The purpose of this module is to examine and discuss the role multimedia can play in the classroom.</p>
<p>Agenda</p>	<ul style="list-style-type: none"> • Audio/visual technology: Theory and effective classroom use. • Discussion of Web 2.0 multimedia (Podcasting, Screencasting, Live streaming, and more) • Fair use for copyrighted materials • Create multimedia!
<p>Assignments</p>	<ul style="list-style-type: none"> • Read article: Multimodal Literacies NCTE (National Council of Teachers of English) 2008. • Read blog: Peters, D. Mayer's Principles for the design of Multimedia Learning. Sep. 2005. • Read Richardson, Ch. 7: Fun with Flickr: Creating, Publishing and Using Images Online • Read Richardson, Ch. 8: Podcasting, Video and Screencasting and Live streaming: Multimedia Publishing for the Masses. • Read article: Lawrence, S. Teachers Should Know Copyright from Wrong 2008. • Participate in a threaded discussion (due 11:59 PM August 10th; 2 points participation grade - 1 point for each posting) • Complete "Current Event" project. (due 11:59 PM August 10th; 6 points) • Add a multimedia component to your web site & give partner feedback. (due 11:59 PM on August 10th; 7 points) • Continue work on the final essay assignment: Utilize web-based tools to find and research classroom resources (Due 11:59 PM on August 13th; 20 points)

<p>Aug. 4th to Aug. 13th</p>	<p>Module 6: Integrating Technology into the Classroom: The purpose of this module is to bring together the various concepts we have discussed thus far and summarize the various challenges and solutions inherent with technology implementation. Additionally, the module looks at distance learning and the future of technology in learning and teaching.</p>
<p>Agenda</p>	<ul style="list-style-type: none"> • Legal, social and ethical issues associated with implementing technology in schools • RSS • Distance learning • What it all means & where do we go from here?
<p>Assignments</p>	<ul style="list-style-type: none"> • Richardson, Ch. 5: RSS • Richardson, Chapter 10: What it all Means • Watch my presentation on issues implementing technologies in schools and emerging technology. • Read article: McKee, T: <i>Thirty Years of Distance Education: Personal Reflections</i>. 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”.) • Read article: Pape, L: <i>Blended Teaching and Learning</i>. 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”.) • OPTIONAL: Complete a course evaluation (due 11:59 PM August 13th; 3 points extra credit) • Complete partnership responsibility on the Current Event Project (due 11:59 PM August 13th; 1 point) • Participate in a threaded discussion posts (due 11:59 pm August 13th; 2 points - 1 point for each posting) • Complete web site reflection & give partner feedback (due 11:59 pm August 13th; 7 points) • Complete the final essay assignment: Utilize web-based tools to find and research classroom resources (Due 11:59 PM on August 13th; 20 points)