

Course Syllabus
Education & Computers
Summer 2018
05:300:350:H1 - 3 Credits
Index #: 01730
Instructor: Brent Horbatt

Course website: <https://canvas.rutgers.edu>

Class schedule: July 9, 2018 – August 15, 2018

Class meeting times: There are no in-person class meetings, or required synchronous activities. Assignments are required by assigned due dates.

Office: Graduate School of Education building, room 207a

Office hours:

- By appointment via video chat or face to face if you live locally.
- Occasionally, I will host “Virtual Office Hour” video chats. Attendance is optional. I will post the times and links to the V.O.H. on the course site.

Contact information:

Email 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 Canvas)

You will 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. Cell phone cameras & microphones are usually fine.

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

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 since the course is online.

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, ISTE NETS standards 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 primary “modules” so that you can focus on identified topics as we move through the course. **You can access the modules by clicking on the “Modules” link on the left-hand side of the Canvas site.** 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 website project that runs the length of the course. It will parallel the modules we are studying and you'll fold what you've learned in each module into the website you create. There is a culminating essay 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 on the course website so you'll know what is due when. Each module includes its own page that shows due dates and helps you stay organized.

You'll need to start thinking about the website project and the final essay as soon as you start the course. Take a look at the project modules, located in the “modules” link on the left-hand side of the Canvas site. You'll need to create a website 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. Here are some additional tips from Concordia University: [Tips for Success in Online Learning](#)

Ground rules: Summer courses are intense! We have a lot of material to cover (15 weeks' worth in only 6 weeks' time). 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 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. 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 backup all data. That means having at least two 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.**

Email policy: Course updates and other important communication will occasionally be emailed to you using the Canvas "inbox". **You are responsible for all course-related email**, so please check your mail regularly, and be sure you are not losing messages to a spam box. The course website on Canvas is populated with your email address as it stands in the University's directory at the time when you enroll in the course. If you wish to change the way Canvas notifies you, instructions can be found here: <https://rutgersonline.desk.com/customer/en/portal/articles/2504302-notifications-in-canvas>

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.

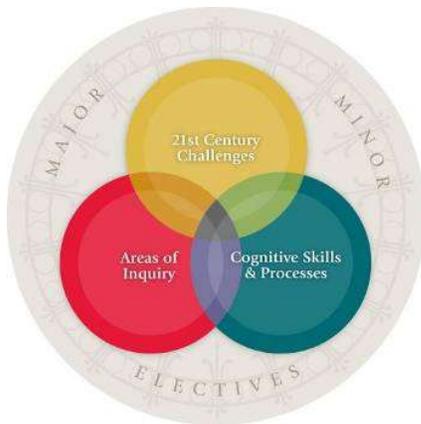
I am here to listen if you have any questions and concerns. You can reach me via email at brent.horbatt@gse.rutgers.edu or through the course website. You can also visit "office hours" by appointment via video chat or even face to face if you live locally. The course requires effort on your part and 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 various assignments and activities. These will count for 40% of the final grade.
- 2) There will be an overarching website project that will run during the length of the course. This website will count for 40% of your final grade.
- 3) The *Web-based Research for Educators* essay will run over several modules. This assignment will count for 20% of your final grade.

This essay fulfills ITR y of the SAS Core Curriculum Learning Goals:



**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?	7/9 – 7/15
Module 2	Overview of the tools: Hardware and software as they apply to the classroom	7/16 – 7/22
Module 3	Networking and the Internet	7/23 – 7/29
Module 4	Using Technology for Communication & Collaboration in the Classroom	7/30 – 8/5
Module 5	Multimedia for Learning	8/6 – 8/12
Module 6	Integrating Technology into the Classroom	8/11 – 8/15

Grading: grades are based upon 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 Canvas, 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 late assessment.

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 (2014)**. 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://caepnet.org/~media/Files/caep/knowledge-center/caep-evidence-guide.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.

<p>July 9th to July 15th</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> <p>Note: Some links may work only when logged in to the Canvas course shell.</p>	<ul style="list-style-type: none"> • Read the syllabus. If you have any questions about the course, you can email me, ask on the FAQ questions or ask in the Virtual Office Hour (I will announce/email when I will be holding chat/office hours) • Read: The Traits of a Successful Online Learner • Read: Concordia University: Tips for Success in Online Learning • Watch my presentation on theoretical foundations. • Read the Partnership for 21st Century Skills whitepaper • Look at the N.J. Core Curriculum Standards for Technology. (8.1, 8.2) • Look over ISTE's standards • Read the following (from University College Dublin) <ol style="list-style-type: none"> 1) Theoretical overview 2) Behaviorism 3) Cognitivism 4) Constructivism 5) Learning styles • 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".) • VoiceThread Introductions (due July 15th by 11:59 P.M.; 3 points) • Participate in a threaded discussion (due July 15th by 11:59 P.M.; 2 points) • Website project proposal (due July 15th by 11:59 P.M.; 6 points)

<p>July 16th to July 22nd</p>	<p>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.</p>
<p>Agenda</p>	<ul style="list-style-type: none"> • Hardware overview • Software overview • Project rubric
<p>Assignments</p> <p>Note: Some links may work only when logged in to the Canvas course shell.</p>	<ul style="list-style-type: none"> • Read: Strickland, J: What's inside my computer? How Stuff Works: A Discovery Company.] • Read: DeKanter, N: Gaming Redefines Interactivity for Learning TechTrends: Linking Research & Practice to Improve Learning, p26-32 May-Jun 2005. • Read: Wetschler, E: Going Out of Print District Administration: Solutions for School District Management. Feb. 2011. • Watch my hardware presentation and software presentation. • Watch my SMARTboard demonstration. • Participate in a threaded discussion (Discussion due July 22nd by 11:59 P.M.; 2 points) • Software evaluation (due July 22nd by 11:59 P.M.; 4 points) • Website project rubric (due July 22nd by 11:59 P.M.; 7 points) • Begin looking at the final essay: <i>Web-based Research for Educators</i> (due August 15th by 11:59 P.M.; 20 points)

<p>July 23rd to July 29th</p>	<p>Module 3: Networking and the Internet: This module will examine how networking and the Internet work and how they have impacted learning & teaching.</p>
<p>Agenda</p>	<ul style="list-style-type: none"> • Introduction to networking • Web evolution as it pertains to teaching and learning • Safety and validity online
<p>Assignments</p> <p>Note: Some links may work only when logged in to the Canvas course shell.</p>	<ul style="list-style-type: none"> • Read: Tyson, J: How Internet Infrastructure Works How Stuff Works: A Discovery Company. • Read: Richardson Ch. 1: <i>The Read/Write Web</i> • Browse/skim: November, A: Education Resources for Web Literacy: updated 2015 • Browse/skim: OnGuard Online! a FTC that breaks down security issues into explanations, games, and videos. • Browse/skim: Magid, L: Connect Safely • Chose and play 3 games on the "OnGuard" site. Further instructions are available by clicking here. (due July 29th by 11:59 P.M.; 3 points) • Complete "critical navigation skills" activity (blog due July 26th by 11:59 PM. Response due July 29th by 11:59 PM; 3 points) • Participate in a threaded discussion (due July 29th by 11:59 P.M.; 2 points) • Basic website project (due July 29th by 11:59 P.M.; 8 points) • Continue working on the final essay: <i>Web-based Research for Educators</i> (due August 15th by 11:59 P.M.; 20 points)

<p>July 30th to August 5th</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 social constructivist 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> <p>Note: Some links may work only when logged in to the Canvas course shell.</p>	<ul style="list-style-type: none"> • Read article: Jenkins, H. Confronting the Challenges of Participatory Culture. MacArthur Foundation. 2009. • Read Richardson Ch. 2: <i>Weblogs in Pedagogy and Practice</i> • Read Richardson, Ch. 3: <i>Weblogs: Getting Started</i> • Read Richardson, Ch. 4: <i>Wikis: Easy Collaboration for All</i> • Read Richardson, Ch. 6: <i>The Social Web: Learning Together</i> • Participate in a threaded discussion (due August 5th by 11:59 P.M.; 2 points) • Complete wiki letter to parents group assignment (due August 5th by 11:59 P.M.; 7 points) (Other intermediate interactions REQUIRED BEFORE THE DUE DATE with your group. See the project link for more detail.) • Interactive component of the website project & give partner feedback (due August 5th by 11:59 P.M.; 5 points) • Continue working on the final essay: <i>Web-based Research for Educators</i> (due August 15th by 11:59 P.M.; 20 points)

<p>August 6th to August 12th</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 multimedia (Podcasting, screencasting, live streaming, and more) • Fair use for copyrighted materials • Create multimedia!
<p>Assignments</p>	<ul style="list-style-type: none"> • Read: Multimodal Literacies NCTE (National Council of Teachers of English) 2008. • Read: University of Hartford Faculty Center for Learning Development. Mayer's 12 Principles for the design of Multimedia Learning. • Read Richardson, Ch. 7: <i>Fun with Flickr: Creating, Publishing and Using Images Online</i> • Read Richardson, Ch. 8: <i>Podcasting, Video and Screencasting and Live streaming: Multimedia Publishing for the Masses.</i> • Read: Lawrence, S. Teachers Should Know Copyright from Wrong 2008. • Read over/skim: Leeman, Dan. The Ultimate Directory of Free Image Sources 2014. • Participate in a threaded discussion (due August 12th by 11:59 P.M.; 2 points) • Create a "current event" presentation. (due July 1st by 11:59 P.M.; 6 points) • Add a multimedia component to your website & give partner feedback. (due July 1st by 11:59 P.M.; 7 points) • Continue working on the final essay: <i>Web-based Research for Educators</i> (due August 15th by 11:59 P.M.; 20 points)

<p>August 11th to August 15th</p>	<p>Module 6: Integrating Technology into the Classroom: The purpose of this module is to summarize the challenges that result from classroom technology implementation. The module will also look at distance learning and the future of technology in the classroom.</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> <p>Note: Some links may work only when logged in to the Canvas course shell.</p>	<ul style="list-style-type: none"> • Richardson, Chapter 5: <i>RSS</i> • Richardson, Chapter 10: <i>What it all Means</i> • Watch my presentation on issues implementing technologies in schools and emerging technology. • Read article: 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”.) • Read article: 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”.) • 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. • Complete partnership responsibility on the current event presentation (due August 15th by 11:59 P.M.; 1 point) • Participate in module six threaded discussion posts (due July 6th by 11:59 P.M.; 2 points - 1 point for each posting) • Complete website reflection/course evaluation & give partner feedback (due July 6th by 11:59 P.M.; 7 points) • Complete the final essay: <i>Web-based Research for Educators</i> (due August 15th by 11:59 P.M.; 20 points)