RUTGERS
Graduate School of Education

Learning and Teaching
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Rutgers, The State University of New Jersey
05:300:350:04/Education and Computers
Spring 2016
Tuesday & Thursday/11:30 AM - 12:50 PM
ED-208

Instructor: Dr. James O'Kelly	Email: james.okelly@gse.rutgers.edu
Phone Number : 848-932-0789	Location: ED-208
Office Hours: By Arrangement	Prerequisites or other limitations: None
Mode of Instruction: _x__ Lecture ___ Seminar ___ Hybrid _x__ Online _x__ Other	Permission required: _x_ No __Yes

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.

Course Description

Learning goals: *Students will be able to:*
- Think critically about the advantages and limitations of computers and computer-based technologies in the classroom.
- Understand how teachers can integrate computer-based technologies into learning contexts.
- Use computers and computer-enhanced technologies to support professional growth.
- Develop a rich understanding of the roles of the NJCCCS for Technology, ISTE Standards-T, and ISTE Standards-S in teaching and learning.
- Develop students' 21st Century Learning Skills using computer-enhanced technology.
- Consider how computer-based learning activities can promote the use of complex cognition.
- Critique Internet and multimedia learning tools.

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- Develop skills in the use of several computer-based tools that can enhance students' learning (e.g., Prezi, Google Docs, Smart Notebook).
- Use computer-based tools to create *project-based learning* (PBL) activities.
- Apply principles of explicit instruction to create a computer-based tutorial.

New Jersey Professional Standards for Teachers (2014)[1]:

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

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[1] http://www.state.nj.us/education/code/current/title6a/chap9.pdf

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

Council for the Accreditation of Education Professionals (2013)[2]:

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.

Course catalog description

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.

Student/Instructor Communication

The best way to contact me is by email (james.okelly@gse.rutgers.edu). Most days I check my email account several times – unless, of course, I am away for the day or otherwise engaged. When you contact me, it is necessary for you to inform me of the section in which are enrolled. (That little bit of information saves me a lot of time.) If you do not let me know which section you are enrolled in, I will return the email to you, requesting that you add the information about your section.

In case you want to speak with face-to-face I am usually free each Tuesday and Thursday from approximately 1:00 PM to 2:30 PM. Also, I am usually free each morning at approximately 9:00 AM, but please notify me ahead of time that you want to speak with me so that we avoid any conflicts with other obligations I might have to take care of at that time of day.

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[2] http://caepnet.files.wordpress.com/2013/09/final_board_approved1.pdf

Course Apps, Readings, Multimedia Resources, Methods

Apps: There is no need to purchase any computer programs or apps for this course. The programs that will be used for projects (i.e., WQ, DS) in the course can be found on the Internet or on the computers in the GSE computer labs (i.e., IWB/Smart Notebook).

Students will need to have a Google account and a Prezi account in order to work on projects. Also, students should save their work on Google Drive.

Readings: The Doc Sharing folder in ecollege contains a set of documents that students need to read for class meetings. The readings need to be completed prior to a designated class meeting in order for students to perform well with class activities associated with those readings.

Multimedia Resources: Students will find an assortment of videos they need to view and comprehend for the course. These videos are available through the *Webliography* tab in ecollege. Some, but not all, of these videos will be presented in class. Students, however, must familiarize themselves with each of these videos by various dates in the semester. (A list of the videos and the dates by which they need to be viewed will be available in Doc Sharing. A set of viewing points will also be provided to students to alert them to key ideas presented in the videos.) Questions about information encountered through the videos could appear on exams.

Methods: The course will use a variety of instructional approaches, including lecture, videos and discussion, computer lab activities, frequent small in-class group activities, and occasional independent in-class activities.

Required Readings
Textbook
There is no textbook for this course. There are articles listed in the Readings folder that you can access via the Doc Sharing tab in ecollege. In that folder you will see a set of Word documents whose filenames correspond with the various topics that you will encounter this semester. When you open each document, you will see a set of article titles and links. These links allow you to access your assigned readings.

Information Book
You will need to use an elementary school level information book for the IWBT project. You can get this book from a public library, a bookstore, or an online source of books. You may even se an e-book. HOWEVER, I must approve the book before you use it for the project, so if you cannot return a book or cancel an order do not purchase it until I approve it. I will present several examples of the appropriate type of book prior to the start of the project.

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Assignments: Overview

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SAS Essay
This course fulfills a requirement for the University's core curriculum. As such, there is a common assignment for all sections of the course. *All instructors for this course must use a common grading rubric that they strictly must follow.*
   • Title: Utilizing Web-based Tools to Find and Research Classroom Resources

- 20 points of the final grade
- This assignment will be returned to students immediately after the final exam.

Projects
Students will create three instructional projects over the course of the semester. Each one will utilize a different program for its creation. It is important for students to understand that these projects are **exercises**. As exercises, they are designed to cause students to practice and apply a variety of skills and domains of knowledge pertinent to the use of technology in education. Each project will be worth twenty points. Each project will acquaint students with an instructional format that is in widespread use in contemporary classrooms. Specific directions and support documents for each project will be found in folders on ecollege as the projects are formally introduced.
- Project 1/Digital Storytelling (DS): This project will be created with Prezi.
- Project 2/WebQuests (WQ): This project will be created with Google Sites.
- Project 3/Interactive Whiteboard Tutorials (IWT): This project will be created with Smart Notebook.

NB: Prezi and Google Sites are available online for free. Smart Notebook is available on computers in the GSE computer lab.

Quality of Written Work
These criteria will be considered in the evaluation of written work:
- *Responsiveness to the task:* Am I clearly addressing the prompts or questions posed in the task?
- *Organization:* Am I writing in a logical and/or reasonable manner? Are my connections to ideas and thoughts clear to my reader?
- *Conciseness:* Am I writing in a manner that is straight to the point? Am I being wordy?
- *Depth:* Am I omitting information that needs to be included in the response? Do I provide the necessary amount of information to support my thoughts, conclusions, or assertions? (This criterion complements conciseness. It is important to avoid being wordy, but it is also important to provide a full response.)
- *Relevance:* Am I making clear connections to the content of *Education and Computers*. (Please note that all responses should be connected to documents and other resources provided through this course.)

Exams
Mid-term Exam (10 points)
- The mid-term exam will be based on readings, lectures, lab activities, and explorations.
- An exam blueprint will be provided to students at least a week prior to the exam.
- The exam will prompt the students to address a few problems of educational technology.

Final Exam (10 points)
- The final exam will include items from the entire semester.
- It will be in multiple-choice format.
- An exam blueprint will be provided to students near the end of the semester.

- The final exam will be administered according to the University schedule and policies. **Please note that there will be no exceptions to University policies.**

Please Note
- This course employs a point system for grading. Students may earn up to 100 points. Each course assignment has been allotted a certain number of the 100 points. At the end of the semester the instructor will tally the points a student has accumulated for all the assignments, and assign a grade. (Please refer to chart on page 10.)
- An assignment that is submitted late will receive a one-point penalty for each day that it is overdue.
- Be sure to save all returned grade/scoring sheets. These documents will be your records in case there is a discrepancy between what you believe is your grade and what is on my grading spreadsheet. If there is a dispute about the grade for an assignment, and a student fails to produce a grade sheet, the instructor's record will be the official grade.
- If, for any reason, a student fails to take an exam, the instructor, at his discretion, will assign a research paper or other assignment in lieu of the missed quiz. (If a student simply does not show up for an exam, and that student can not document that he or she had a legitimate reason for that absence, the student will receive a zero for the exam.)
- All course requirements must be fulfilled by the end of the semester, unless there is a reason that falls under University policies (e.g., documented illness, extreme family emergency).
- **Be advised that there will be NO extra credit tasks, assignments, or projects for this course. (At the end of the semester, it is not unusual for a few students to request that I allow them to earn points beyond what they earned over the course of the semester. I decline all such requests.)**

Academic Integrity Policy
Any violation of academic honesty is a serious offense and is therefore subject to an appropriate penalty. Refer to http://academicintegrity.rutgers.edu/integrity.shtml for a full explanation of policies.

Web site: https://onlinelearning.rutgers.edu/ecollege-student-login

Course Requirements

Attendance Policy
This course observes the University policy for attendance. Students are expected to attend class regularly, with the exception of certain circumstances (e.g., serious illness, death in a family, court appearances, religious observances). If such a circumstance does occur – particularly when an exam or quiz is scheduled – please contact the instructor, and the matter will be handled in a discreet manner. *Be advised: the instructor reserves the right to request documentation for a quiz or exam that has been missed.*

If you expect to miss a class, 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. *Be aware, however, that reporting an absence does not in any way obviate a student's course obligations.*

Upon entering the computer lab for a class meeting, students should initial an attendance sheet that will be at a table near the front of the lab. This record will be the official attendance record for the course. *If a student fails to initial the attendance sheet, he or she will be considered absent.* (Students will earn no points for good attendance; students will lose no points for poor attendance. HOWEVER, there is a STRONG correlation between good attendance and good grades.)

It is not uncommon for a student who misses a class to contact me to set up a time when I can teach him or her the things that were taught during such an absence. My policy is to do that only for students who miss class meetings because of absences permissible under the University attendance policy. (See above.) Otherwise, I respond to such a request by directing that student to confer with a member of his or her team. (See below.)

Teams
When the drop/add period is over, students will set up work teams. In most cases each team will be comprised of three members. Students will provide a list of teams and members to the instructor. There are several purposes for the teams:

- Absences: When a student misses a class, he or she should contact a member of the team for notes or other information pertinent to the course.
- Class work: There will be frequent use of small group activities or tasks over the course of the semester. Once the directions for an activity are explained, groups can quickly assemble to complete the work. This work may be part of one of the quizzes that are part of the course assessment procedures.
- Peer Review: Students often find it valuable to have peers review and critique work that they plan to submit for grading.

Course Schedule by Week			
Mtg	*Date*	*Main Topic*	*Readings*
1 (T)	1/19	Introduction to Course/Instructional Models	ecollege
3 (T)	1/26	21st Century Learning and Teaching	ecollege
5 (T)	2/2	NJCCCS/CCSS and Ed Tech	ecollege
7 (T)	2/9	ISTE Standards/NJ Ed Tech Standards	ecollege
9 (T)	12/16	*Learning Theories and Ed Tech**	ecollege
11 (T)	2/23	Supporting HOTS w/ Ed Tech I: Bloom's Taxonomy	ecollege
13 (T)	3/1	Supporting HOTS w/ Ed Tech II: Webb's DoK	ecollege
15 (T)	3/8	Assessment and Educational Technology	ecollege
17 (T)	3/22	*Evaluating the Quality of Internet Resources**	ecollege
19 (T)	3/29	*Research, Professional Development, and Ed Tech**	ecollege
21 (T)	4/5	Explicit Instruction w/ Ed Tech	ecollege
23 (T)	4/12	Visual Literacy/Graphic Organizers	ecollege
25 (T)	4/19	Reducing Barriers with Digital Technology	ecollege
27 (T)	4/26	Web 2.0 and Instructional Strategies	ecollege
* These topics play an important role in your SAS Essay.			
Projects			
Mtg	*Date*	*Activity*	*Resources/Readings*
2 (H)	1/21	Digital Storytelling	DS Folder
4 (H)	1/28	Digital Storytelling	DS Folder
6 (H)	2/4	Digital Storytelling	DS Folder
8 (H)	2/11	Digital Storytelling/SAS Essay	DS Folder
10 (H)	2/18	WebQuests	WQ Folder
12 (H)	2/25	WebQuests	WQ Folder
14 (H)	3/3	*Mid-term Exam*	NA
16 (H)	3/10	WebQuests	WQ Folder
18 (H)	3/24	WebQuests	WQ Folder
20 (H)	3/31	Interactive White Boards	IWT Folder
22 (H)	4/7	Interactive White Boards	IWT Folder
24 (H)	4/14	Interactive White Boards	IWT Folder
26 (H)	4/21	Interactive White Boards	IWT Folder
28 (H)	4/28	Interactive White Boards	IWT Folder

Schedule: Course Assessments			
Projects			
Activity	*Date Assigned*	*Due Date/Time*	*Points*
Project 1/DS	1/28	2/18 (11:30 AM)	20
Project 2/WQ	2/18	3/31 (11:30 AM)	20
Project 3/IWBT	3/21	4/29 (11:30 AM)	20
Assessments			
	Includes	*Administered*	*Points*
Mid-term Exam	Mtgs. 1 – 13	3/3	10
Final Exam	Mtgs. 1 – 28	TBD	10
Core Curriculum Assignment			
SAS Essay	Start: 2/11	Due: 4/21 (11:30 AM)*	20
* The digital copy must be in the dropbox basket by 11:30 AM; the hard copy may be submitted upon entering the lab for the class meeting. If you are absent that day, please ask someone to bring it to the lab.			
Grades/Points			
Grade	*Points*		
A	90 - 100		
B+	85 - 89		
B	80 - 84		
C+	75 - 79		
C	70 - 74		
D	60 - 69		
F	⬇ 60		