Classroom Technologies:
Technology to Enhance 21st Century Learning

A Graduate Course

Course Description
In the ever-changing world of education, technology fits perfectly with forward thinking educational beliefs of student-centered learning and higher order thinking. Developed for educators and administrators at both the introductory and intermediate levels, Classroom Technologies is designed to offer ideas for technology integration, as well as resources to successfully prepare students for 21st Century learning. Through a blend of theory and practice, participants will be able to create lessons that incorporate technology and Web 2.0 tools to prepare their students for college and career.

Curriculum Design
This course has participants interacting with technologies that can be used to enhance classroom instruction. Participants will learn about using Google Classroom, Office products, online teaching tools, classroom resources, alternative assessment, and best practices for a student-centered classroom using technology as the foundation. This is a 45 hour, three credit graduate level course completed face to face over two weekends or five consecutive days.

Hardware & Computer Skills Requirement
Students are encouraged to bring a device to class, but may opt to use their device at home and must have computer skills to successfully complete this course. This is a course directed at all levels of technology knowledge, from beginner to advanced.

Objectives:

1. Understand why National Technology Standards for Students (NETS-S) is important to effective technology planning and how it aligns with standards.
2. Analyze ways technology and computers can enhance classroom instruction and student learning.
3. Learn how to integrate web resources into the curriculum.
4. Learn how technology and Common Core work together.
5. Use the Internet as a tool to communicate with parents, students and colleagues.
6. Create a web page hotlist resource for a unit of study.
7. Create a project-based lesson with technology integration.
8. Understand how cooperative learning enhances lesson and student learning.
9. Incorporate cross-curricular lessons in the classroom.
10. Analyze how using Google Classroom and Microsoft Office products can enhance student collaboration and productivity.
11. Evaluate alternative assessments.
12. Create a multimedia presentation.

13. Analyze best practices in the classroom using technology.
14. Analyze inquiry-based lessons.
15. Evaluate Web 2.0 tools like blogs, wikis, apps and educational games.
16. Develop a technology-rich unit plan.

Course Materials:

The required textbook for this course is *Ed-Tech for the K-12 Classroom: ISTE Readings on How, When and Why to Use Technology*. (ISTE, 2018) International Society for Technology in Education. Portland, Oregon and Arlington, Virginia.

This text is a companion to Classroom Technologies, and provides teachers with digital tools and ideas to help enhance classroom learning. The textbook includes readings, digital resources, examples specific to technology integration for educators, and is in correlation to the widely adopted ISTE standards.

A textbook and student guide will be provided for all students. Case studies, rubrics, and lesson plans are included.

Session Outline

Session One: Technology Integration Basics, and How Technology works with Common Core Standards

Objectives:

1. Understand why National Technology Standards for Students (NETS-S) is important to effective technology planning and how it aligns with standards.
2. Analyze ways technology and computers can enhance classroom instruction and student learning.
3. Learn how to integrate web resources into the curriculum.
4. Learn how technology and Common Core work together.

Content:

1. Why technology integration?
2. How do we determine what to do with technology?
3. Finding valid resources.
4. Common Core and technology.

Textbook Readings: Chapter 1, pages 1 – 18.

Session Two: Google Classroom and Microsoft Office

Objectives:

1. Explain the advantages of using software suites like Google Classroom or Microsoft Office in the classroom.
2. Develop a plan for using Excel or Sheets in the curriculum.

3. Produce a slideshow for a lesson in your content area.

Content:

1. Google Classroom
2. Microsoft Office
3. Benefits for students
4. Benefits for teachers

Textbook Readings: Chapter 2, pages 19 – 34.

Session Three: Project-Based Learning, and Alternative Assessments

Objectives:

1. Evaluate why project-based learning is important.
2. Compile project-based learning resources.
3. Investigate rubrics and learn how they can help you stay objective with grading.

Content:

1. Rubrics
2. Project-based learning advantages for students
3. PBL resources online for educators

Textbook Readings: Chapter 3, pages 35 – 48 (first part of chapter).

Session Four: Cooperative Learning

Objectives:

1. Research cooperative learning and theory behind the benefits.
2. Discover apps that can be used to enhance learning.
3. Modify an existing lesson plan to include cooperative learning.

Content:

1. Benefits to the student
2. Teacher's role for success
3. ELL strategies
4. Revise existing lesson plan

Textbook Readings: Chapter 3, pages 49 – 57 (end of chapter 3).

Session Five: Educational Games, and Web 2.0 Tools

Objectives:

1. Modify an existing lesson plan to include educational games.
2. Research current Web 2.0 tools for education.
3. Create a plan for using three to five Web 2.0 tools in the classroom.

Content:

1. Gamification
2. Apps for education
3. Web 2.0 tools

Textbook Readings: Chapter 4, pages 59 - 70.

Session Six: Digital Instruction, Digital Media, and Digital Citizenship
Objectives:

1. Explain the difference between digital instruction and digital media.
2. Discover how BYOD (Bring Your Own Device) can help meet technology goals
3. Understand how blended learning integrates technology and still meets standards.

Content:

1. Digital Instruction
2. Teaching digital citizenship
3. Keeping students safe online
4. Allowing students to bring devices to the classroom

Textbook Readings: Chapter 5, pages 71 – 80.

Session Seven: Blended Learning & Digital Equity
Objectives:

1. Understand the concept of blended learning.
2. Research ways that blended learning can work in the classroom.
3. Analyze Blooms Taxonomy and ways technology can promote higher level thinking skills with students.
4. Understand the term digital equity and what it involves.

Content:

1. How does blended learning work?
2. Blooms Taxonomy

Textbook Readings: Chapter 6, pages 81 – 96.

Session Eight: Using Multimedia Effectively, Gathering Online Tools, and How Technology Plays a Role in Higher Thinking Skills

Objectives:

1. Research how Google Slides and Microsoft PowerPoint can enhance learning and teaching.
2. Explore the ASSURE instructional design model for incorporating technology in your lesson plans.
3. Analyze how multimedia specifically incorporates higher level thinking skills.

4. Evaluate online tools and web sites for classroom use.

Content:

1. Multimedia projects
2. Web site resources for teachers
3. Web sites that help students
4. Bloom's Taxonomy continued
5. ASSURE lesson plan model

Textbook Readings: Chapter 7, pages 97 – 106.

Session Nine: Integrating Technology and Creating a Working Unit of Study

Objectives:

1. Create a unit of study that integrates technology and best practices from this course in a K-12 classroom.
2. Create a hotlist of web resources for a specific curriculum/subject area.
3. Create four components to this unit: lesson plan, rubric, hotlist, and multimedia presentation.

Content:

1. Lesson plan
2. Hotlist
3. Multimedia Slideshow
4. Rubric

Textbook Readings: Chapter 7, pages 107 – 114.

Session Ten: Creating a Technology Rich Working Unit of Study - Presentations

Objectives:

1. Present your project to peers taking this course to learn from others and collaborate.
2. Give feedback to others after they present their unit of study.
3. Collect new idea for other lessons you can build from the presentations.

Content:

1. Present Project to the class
2. Give feedback to other presentations
3. Collect new ideas for more technology rich lessons

Textbook Readings: Chapter 7, pages 115 - 122

Student Requirements

1. Attend all class sessions for the requisite number of hours and actively participate in all class activities.
2. Reading assignments: Complete all readings and reflection assignments.
3. Students are required to put the technology integration strategies and concepts into action and will be required to construct a portfolio during the course that will serve as a toolkit of specific ideas and protocols for their classrooms.
4. Students are required to create a final project for the last session, share their projects, and give feedback to other students' projects as a collaborative activity. This will allow students to walk away from the course with not only their own unit of study, but also with many new ideas from peers in class to create more technology rich lessons.

Grading Criteria

Assignment	**Points**	**Grading Scale**	
Activity Participation	15	95-88	A
In class Assignments	40	87-81	B
Homework Assignment	05	80-73	C
Reading Assignments	10		
Final Project	25		
Total Points	95		

Student Academic Integrity:
Participants guarantee that all academic work is original. Any academic dishonesty or plagiarism (to take ideas, writings, etc. from another an offer them as one's own), is a violation of student academic behavior standards as outlined by our partnering colleges and universities and is subject to academic disciplinary actions.

Suggested Books

I.S.T.E. (2018). *Edtech for the K-12 Classroom: ISTE Readings on How, When, and Why to Use Technology*. Portland, OR. International Society for Technology in Education.

Merrill, J. & Merrill, K. (2019). *The Interactive Class: Using Technology to Make Learning More Relevant and Engaging in the Elementary Classroom.* Elevate Books Edu.

Marzano, R. (2019). *The Handbook for the New Art and Science of Teaching*. Bloomington, IN. Solution Tree Press.

Marzano, R., Pickering, D. (2011). *The Highly Engaged Classroom: The Classroom Strategies Series*. Bloomington, IN. Marzano Research Laboratory.

McLeod, S. & Grabber, J. (2019). *Harnessing Technology for Deeper Learning*. Bloomington, IN. Solution Tree Press.

Websites

International Society for Technology in Education
www.iste.org

Kathy Schrock's Guide to Everything
https://www.schrockguide.net/

Education World
https://www.educationworld.com/

T.H.E. Journal
https://thejournal.com/Home.aspx

Achieve the Core
https://achievethecore.org/

Edutopia
https://www.edutopia.org/

Common Sense
https://www.commonsense.org/

Microsoft Templates
https://templates.office.com/?legRedir=true&qu=education+templates&ex=1&CorrelationId=7ece1289-484b-486e-9fd8-5c3258069623

Google for Education
https://edu.google.com/?modal_active=none

Manage Teaching and Learning with Google Classroom
https://edu.google.com/products/classroom/?modal_active=none

Lesson Planet – Project Based Lessons
https://www.lessonplanet.com/search?keywords=Project%20Based%20Learning&type_ids%5B%5D=357917&type_ids%5B%5D=357918&type_ids%5B%5D=357922&type_ids%5B%5D=357927&reviewed_in=4&rating=4?utm_medium=CPC&utm_source=yahoo

Edutopia – Project Based Lessons
https://www.edutopia.org/project-based-learning

Britannica Online Encyclopedia
https://www.britannica.com/

Microsoft PowerPoint Templates for Educators
https://www.microsoft.com/en-us/education

Khan Academy
https://www.khanacademy.org/

Smart Exchange
https://exchange.smarttech-prod.com/