Technology

in the Elementary Classroom

EDUC 305

Salish Kootenai College

Education Department

Fall 2014 ~ 2015

Doug Ruhman

EDUC 305 Course Syllabus

Course Information:

a. Number: EDUC 305 **Title:** Technology in the Elementary Classroom
b. Credits: 4
c. Prerequisite: EDUC 115 or equivalent
d. Corequisite: none
e. Availability: This course is offered Fall quarter
f. Location: Adeline Mathias Room 121
g. Meeting Time: Tuesdays & Thursdays 11:00 a.m. – 12:50 p.m.

Instructor Information:

a. Instructor: Doug Ruhman, M.Ed.
b. Office: Education Building Room 124
c. Office Hours: Tues. and Thurs. 8:00 – 11:00 a.m.
d. Phone: office: (406) 275-4763
e. eMail: doug_ruhman@skc.edu

Required Materials:

Text:

1. Shelly, Gunter (2012) **Teachers Discovering Computers: Integrating Technology in a Connected World (7th Edition)**
   ISBN-13: 978-1-133-52655-1 Available through SKC Bookstore/MBS online or Amazon/other online sources

Other required resources:

- USB Jump/Flash drive (2 gb or higher, 4 gb preferred)
- 3-ring binder w/ dividers and tabs

Course Description:

Technology in the Elementary Classroom is a methods course which guides students towards a larger awareness of the role of technology in schooling. The course covers such issues as technology integration across the curricula, multimedia and learning, technology to enhance teaching, adaptive/assistive technologies, and much more. The course focuses on gaining a deeper understanding of how technology affects the teaching and learning experiences, instead of simply "teaching computers". In the process of learning, students in this course design materials they can use, while demonstrating key tech skills that are essential for today's teachers.

Course Overview:

Technology in the Elementary Classroom is designed to orient teacher candidates in the current uses of technology in elementary education. Included are strategies for the use and evaluation of internet, productivity, and multimedia design tools, as well as topics like hardware issues, integration with curriculum, technology leadership, and school networking. We will be exploring issues regarding the uses of technology in traditional and non-traditional classroom settings, including the ethical domain of technology instruction and issues surrounding cultural relevance.

Other Course Information:

1) Attendance:

As an adult learner in this class, you are a co-creator in the content of the course. To bring meaning to the course content you will be asked to participate in discussion, group work, presentations, critique classmate presentations, and other class activities. A variety of class activities, discussions and presentations will be conducted throughout the course. These cannot be made up, therefore your absence forfeits the opportunity to learn from the activities.

Students are expected to be on time for class and to stay until the designated time set for dismissal. If a student must leave early he/she must inform the instructor(s) at the beginning of class. Communication with the instructors is very important; if students know that they will have to miss a class, they must contact the instructor ahead of time. As stated above, there is no way to make up what is covered in class whether absence is considered "excused" or unexcused. The course is designed for students to be in attendance at all times. If an absence is needed, students should arrange for someone in the class to pick up handouts and other materials and information that was presented.

In the event of emergency medical / health problems or extended absences for other reasons, students will be expected to meet the requirements of the course using outside-of-class methods such as phone/email/internet resources. *It is the **student's** responsibility to communicate with the instructor to make sure that class assignments/requirements are completed if absences occur.*

2) Preparation for Class:

Late Assignments: On the day that assignments are due, students are expected to have them complete and ready to be

turned in (typed and printed out, or turned in electronically) at class time. Assignments will only be accepted during class time. Late work will receive a reduced amount of assignment points and must be submitted the **following class period**. If later than one week, no credit will be given.

Presentations: The above does not pertain to class presentations. Individuals who are not prepared on the scheduled day for a presentation will receive 50% reduction in assignment points. Preparedness for presentations includes having all copies for other students made before class begins.

Rewriting Assignments: In cases where assignments are judged to be of poor quality, students may request consideration for a rewrite of the assignment. This request must be made by the end of the first week of seeing the grade. Revisions must be submitted no later than the second class meeting from the time the assignment was handed back. Revisions will not be accepted after that date.

3) Cell Phones:

a. Students must keep cell phones in the **off** position during class. Any student who chooses to either make a call or take a call during class will be asked to leave for the remainder of the class period. (This does not include calls made during class breaks.)

b. Taken from the SKC Student Handbook Section VI:

"Cell phones will not be permitted in classrooms. Please turn off phone upon entering classroom. This is showing respect for your instructor and other students. Failure to do so may result in class suspension."

4) Incompletes will not be given except in the case of emergencies.

5) The instructors will exercise their right to issue failing grades to students who engage in academic dishonesty, including plagiarism.

Course Objectives:

Upon completion of this course, students will be able to...

A. General Course Objectives

1. Identify and describe the relevance and attributes of each of the major subject areas of elementary educational technology, including:
(InTASC- all MT- 1,2,3,4)

- technology, computers, and cultural relevancy
- the history of computers
- technology and curriculum integration
- computer hardware and systems
- educational software
- internet-based learning, online collaboration, and web publishing
- multimedia applications, video, robotics, and other technologies
- technology ethics and school technology environments
- technology's impacts on classroom management
- adaptive and assistive technologies for exceptional learners
- personal growth and staff development models for technology leadership and education

2. Comprehend and summarize important selected research related to instructional technology for elementary school teachers. *(InTASC- 1,4,9 MT-2)*

3. Demonstrate knowledge of the structure and content of the Montana State Standards for Technology, and awareness of regional and national resources for technology in education.
(InTASC- 9, 10 MT- 2,4)

4. Demonstrate proficiency in the following technological instructional tools: *(InTASC- 4, 5, 8 MT 1, 3, 4)*

word processing
simple spreadsheets
digital slideshows
digital imaging
desktop publishing
digital media tools and design
presentation tools, including projectors and interactive whiteboards

5. Design and implement meaningful, standards-based curricular lessons incorporating the use of technological tools.
(InTASC- 3, 4, 5, 7, 8 MT 1, 2, 3, 4)

B. Critical Thinking Objectives

5. Differentiate between various models for the integration of technology, and evaluate them for instructional effectiveness.
(InTASC- 1, 2, 3, 5, 7 MT- 1)

6. Identify and discuss the effect of technological changes on elementary education in the past, present, and future.
(InTASC- 7, 9 MT- 1, 2)

7. Identify, evaluate, and appraise the various benefits of current technologies on student achievement and teacher productivity.
(InTASC- 1, 2, 3, 5, 9 MT- 1)

C. Cultural Knowledge Objectives

8. Identify and describe various instructional technology tools which incorporate culturally appropriate references and themes.
(InTASC- 2, 3, 9 MT- 2, 3)

9. Examine, assess, and discuss ways that the inclusion of technology may empower Native American learners to express their cultural knowledge. *(InTASC- 2, 5, 7, 9 MT- 3)*

10. Explore and explain the relationships that have been studied involving American Indian students and technology-based learning.
(InTASC- 2, 7, 9 MT- 2, 3)

D. Communication Skills Objectives

11. Demonstrate proficiency in the use of projection tools, smartboard technology, and other presentation tools to enhance the delivery of tech-based instruction. *(InTASC- 3, 5, 7 MT- 1, 2, 3, 4)*

12. Demonstrate knowledge learned in the area of instructional technology using a variety of communication skills and techniques, including written narratives, digital media projects, and oral presentations. *(InTASC- 3, 5, 7 MT- 1, 2, 3, 4)*

E. Citizenship Objectives

13. Observe, record, and reflect on the use of instructional technology tools in various public and private education settings. Explore ways these tools help build enhanced perspectives and connections with regard to other people locally, nationally, and globally.
(InTASC- 2, 7, 9 MT- 2, 3)

14. Discuss, reflect on, and describe in writing multiple issues connected to community values, technology ethics, internet filtering, social networking, technology security, and other issues related to technology and the world outside of schools.
(InTASC- 9, 10 MT- 2)

InTASC STANDARDS and PROGRAM PRINCIPLES ADDRESSED IN EDUC305:
Assessments in bold are to be included in student TEP portfolios

Indicators	Type	Assessments
InTASC Principle 3: Learning Environments 3m. The teacher knows how to use technologies and how to guide learners to apply them in appropriate, safe, and effective ways. (Guiding Princ. E PEPPS 10.58.508.b.vii)	Knowledge Skills Dispositions	Reflective Journal **Integrated Unit Plan with multiple assessments (Project 3)** **(TEP portfolio requirement)**
InTASC Principle 8: Instructional Strategies. 8o. The teacher understands how content and skill development can be supported by media and technology and knows how to evaluate these resources for quality, accuracy, and effectiveness. (Guiding Princ. E PEPPS 10.58.508.d)	Knowledge Skills	Educational Website Evaluation Rubric Unit Plan Assessments **Technology Project 1 or 2 (TEP portfolio requirement)**
InTASC Principle 10: Leadership and Collaboration 10g. The teacher uses technological tools and a variety of communication strategies to build local and global learning communities that engage learners, families, and colleagues. (Guiding Princ. B PEPPS 10.58.508.b.i)	Knowledge Skills	Digital media project(s) **Webliography (TEP portfolio requirement)**

Course Requirements:

Reflective Journal (50 points)

The Reflective Journal is like a small-scale diary that chronicles your learning in the class. It is for you to keep your own personal thoughts and reactions in. The content of the RJ should focus on your involvement in this class, not "life in general". Write about how the class is going, what you're learning, your responses to course topics… but keep it centered on your technology methods course. The entries should be done once per week - I recommend over the weekend, reflecting on the previous week – and should be short (1-2 paragraphs). You keep this journal over the course of the quarter and hand it in at the end. It is for you and me only. No one else will be allowed to read your RJ unless you wish to share your written observations with the

class. If it takes more than 5-10 minutes to do this each week, then you are doing too much! Keep it simple, honest, and brief. It should be done electronically, and I would prefer that you attach it (as a Word document) to me in an email at the end of the quarter.

Classroom Observations (100 points)

As part of this class you will do some observing (and perhaps assisting) in an actual classroom. You will need to set up at least two observations of teachers using technology, follow up with a short interview of the teacher, and prepare a short written analysis summarizing and evaluating your observations. These can be done at any time throughout the span of the course, up until week 9. In other words, you should get these done and submitted to me by the end of Week 9. Clear instructions will be provided on how to complete and document these assignments near the beginning of the course.

Reading Responses (50 points)

Connected to most class sessions, there will be assigned reading in the textbook, from the web, or from instructor handouts. At the beginning of the following class, the material will be discussed and a short write-up will be due. This "Reading Response" or "RR" should include a brief summary of the material presented in the assigned readings and 2-3 questions for discussion More details on this requirement will be covered on the first day of class.

Class Assignments (50 points)

There will be several tasks, mini-projects, tech exercises, and other activities which will be a part of the 305 course. Most of these will be in-class; some will be for homework. All together these assignments will count towards a total of 50 points towards the total for the course. Examples include creating classroom forms and schedules, developing a classroom budget, and evaluating educational websites.

Tech Ed Projects (150 points)

In this course you will be asked to do three separate out-of-class projects connected to the course content. Each of these will be due on specific dates throughout the quarter. The instructor will give clear details of these assignments in the beginning of the course, and will provide a handout with project suggestions and options. A minimum of one of these projects must be connected to American Indian/Alaskan Native culture, preferably focused on the tribes of the Flathead Reservation. One of these three projects must be in the form of a interdisciplinary **unit plan that integrates technology into curriculum.**

Attendance and Participation (100 points)

Students will be expected to be on time and are required to attend every scheduled class session. Five attendance points will be earned for each class attended. Students arriving late to class receive fewer points, and missed classes result in no points. More than 30 minutes absence from class will also result in zero attendance points. During class time, students should be on-task and involved in the topic or activity being presented. This level of participation will be noted by the instructor.

Credit Hours:

Following the SKC Credit Hour policy, to meet the identified objectives of this course, this 4 credit course- delivered over a 10 week term- will approximate:

4 hours/week classroom or direct faculty instruction
2+ hours field work / observations for the course

In addition out-of-class student work will approximate a minimum of 8 hours each week.

Grading:

Points will be awarded as follows:

Reflective Journal	50 points
Classroom Observation docs	100 points
Reading Responses	50 points
In-Class assignments	50 points
Tech Ed projects	150 points
Attendance/Participation	100 points
Total points possible	500

Grades will be assigned according to the following points breakdown:

450 - 500 = A
400 - 449 = B
350 - 399 = C
300 - 349 = D
Below 300 = F

Other Course Information

Reasonable accommodations are provided for eligible students with identified disabilities. The College complies with the Rehabilitation Act of 1973 and the Americans with Disabilities Act. Students may contact the College's Disability Officer, Stanley Fleming (stanley_fleming@skc.edu, 406.275.4968) or consult the SKC web page for Students with Disabilities for more information.

The faculty reserves the right to change the course syllabus or course content. Students will be provided advanced notice of changes in writing.

SKC Retention

The SKC Retention Team consists of SKC staff and faculty who provide student-centered support services on a daily basis. The SKC Retention Team is here to help you to be successful in reaching your educational goals. You can contact the SKC Retention Team yourself, or your instructor may refer you (for example, if you "disappear" from class or they are concerned about your attendance and performance). Debbie L. Bell, SKC Retention Coordinator (Bookstore Annex, 275-4928, Email: retention@skc.edu)

Academic Honesty/Integrity

Inherent in the use of technological media is the potential for duplication of others' work and intellectual property. This class relies heavily on electronic media for learning and for demonstration of learning. All submitted student work should be the original work of the student, or properly cited if otherwise. Plagiarism in any form will not be tolerated, and will result in a failing grade in the class- **no exceptions**. Plagiarized work will be brought to the attention of the administration at SKC and further disciplinary action may be pursued.

Course Outline:

(This course plan is subject to modification depending on the needs of the class)

Week 1: Introduction / What is the impact of technology in the classroom?

Intro. to course, history of computers in education, role of technology as a tool for creativity and learning, multiple intelligences, tech as teacher tool vs. student tool, tech and cultural literacy
Lab: web research on current education tech issues *Readings from the instructor*

Week 2-3: What do I need to know about the internet as a teacher, and how can I use it effectively with my students?

History of the internet, Web-based learning (WebQuests, etc.), searching and researching on the web, teachers and copyrights, kids' sites (yahoo kids), evaluating websites for academic worth, learning modalities and assumptions about reading and literacy relevant to web use
Lab: WebQuest template, Webliography, web eval. rubric *Readings in TDC: Chapter 2*

Week 4: What does a teacher need to know about computer software?

productivity tools, applications, school mgmt software, multimedia overview
Lab: Weekly Plan *Readings in TDC: Chapter 3*

Week 5: What does a teacher need to know about hardware?

Demystifying computers: inside the machine, 3 levels of interface, tech repair / maintenance systems, operating systems (mac and win), school networking basics, the processing cycle: input-processing-output-storage
Lab: hardware exploration in teams *Readings in TDC: Chapter 4*

Week 6: How do elementary teachers integrate technology into subject areas?

4 elem curriculum areas: Math, LA, SS, Sci., integration matrix, subject area standards, tech standards (ISTE and MT) , cultural curricula, educ. technology-based organizations, resources
Lab: Research and reflections on observations *Readings in TDC: Chapter 5 part 1*

Week 7-8: How can I use digital media to get my students excited about learning, and empower my teaching?

Multimedia hardware and software tools, digital cameras, video in the classroom, the use of imaging in elementary school settings, Howard Gardner MI theory, student learning modalities
Lab: Digital imaging and video projects, MM learning centers *Readings in TDC: Chapter 5 part 2*

Week 9: How do teachers effectively assess tech-based learning?

Using rubrics to assess technology-based learning, authentic assessment, portfolios, criteria for evaluating web resources. *Lab: to be determined* *Readings in TDC: Chapter 7*

Week 10: What do teachers need to know about safety and ethics, with regard to technology?

Computer security, digital property rights, acceptable use policies, software piracy and schools, digital drilling vs. constructivist learning, internet filtering
Lab: Unit Plan presentations *Readings in TDC: Chapter 8*

Other topics explored:

- **Technology and the Exceptional Learner**
  Special education and computers, assistive and adaptive technologies, technology's role in gifted-talented instruction

- **Beyond the Computer**
  Video as a learning and teaching tool (viewing and making), robotics, cable in the classroom, older technologies and their application in modern classrooms

- **Planning for Your Future / Technology Leadership**
  School Tech plans, tech committees, student tech clubs/teams/technicians, staff development models, ITPP, emerging technologies, tech attitudes of acceptance