

University of New Hampshire
EDUC 820/720 Introduction to Computer Applications for Education

Credits: 4.0

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Tuesdays 6:00 – 8:30 PM

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Introduction:

Computer technology is a powerful learning tool when used properly. It is no longer appropriate to avoid its use in education. While technology is not the answer to every educational problem, appropriate use of available technologies offers great opportunities to enhance the quality of learning in our students. While data management programs such as grade books and scheduling aids are important, the scope of this course will explore the software and hardware that can be used directly by teachers and students in the pursuit of learning. The course will present a learning model upon which the classroom use of computers is based.

Class Activities:

Class sessions will include both discussion and working time. Most weeks will find us spending the first half of our time involved in discussions or demonstrations. The second half will give you time to work on the projects that are such an important of this course. You will need to save your work onto a flash drive.

Response Papers:

Readings have been kept to a minimum so that you can dedicate the time necessary to exploring a variety of educational hardware and software. In order to save paper and expense, the readings can be found at <http://learning.gaudet.info/educ820/educ820.html>. In order to have a hardcopy of any reading, simply download the document and print your own copy. The response papers should be written with an eye toward what works for you in your growth as a teacher. Compare the readings to your experiences and/or beliefs. Think about how you might improve your classroom culture through your reactions to the thoughts offered in the papers. You might want to follow a *what/so what/now what* paradigm when writing. (What are the important facts? So what do these facts have to do with I have experienced? Now what am I going to do with what I know?)

Papers should be 1-2 typed pages long and are due on the dates indicated. Papers will be graded as “Done” or “Not Done”. If quality is lacking, we will talk. Be ready to offer your thoughts during class discussions. Use the papers as opportunities to reflect on your thoughts and feelings toward using computer technology in the classroom.

Projects:

The projects are designed as the bedrock of the class. Dig into them. Use them to get what you need in order to become an expert user of this technology. If you need to modify the requirements in order to better meet your specific needs, talk to me. The process that you follow as you explore these projects will be a valuable learning tool for all of us. As you present your work, spend time sharing your successes and tribulations. Tell us how your project might be used in our classrooms; offer solutions to the pitfalls experienced; and hand out any documents needed for others to make use of this technology.

Materials:

The Learning Site CD (Provided)

USB Flash Drive for Data storage

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

- Use the computer comfortably as an extension and enhancement to classroom instruction.
- Develop an understanding of the constructivist principles that apply to computer technology in the classroom.
- Gain an understanding of when and why computers should or should not be integrated into the curriculum.
- Develop a thorough understanding of how to evaluate software and hardware to meet your students' needs.
- Use the Internet as a tool to provide you with the resources you need to create projects.
- Create and present a subject area project.
- Ultimately, develop the knowledge, dispositions, and skills necessary to take the lead in establishing effective teaching and learning environments within your own classrooms, school communities, and within the profession itself with regard to technology.

The Specifics:**Response Papers**

- Child Power – Seymour Papert
- ISTE Standards / Constructivism
- Maine Learns OR Technology in Early Childhood Education OR One to One
- The Payoff in Student Learning.
- Copyright: Keeping it Legal-From Now On; Copyright Law; Copyright Simplified

Website Evaluation:

Use either the Kathy Schrock, USM, or ERIC website evaluation tools to evaluate two educational websites.

Choose your websites from:

- Sites listed on the Educ. 720/820 webpage.
- Sites used in your internet based lesson.
- The list of sites found on the Kathy Schrock's Guide for Educators.
- Any two of your choosing.

What to do:

- Complete one evaluation tool for each site.
- Type a narrative description (no more than one page) describing whether the site is appropriate to your and your students' needs. Highlight evidence from the evaluation tool in your response.
- Turn in an evaluation tool as well as the typed description for each site.

Projects:

1. **Create an internet based lesson.** Make a website using Microsoft Word, (*web editor or HTML code*)

Planning: Complete an *Internet Project Contract* (See website).

- Indicate a subject and topic area.
- Tell with which grade level this project will be used
- List 2-4 appropriate ISTE or state Learning Standards
- Indicate how you will ask students to:

Wonder

Develop an essential question

Develop at least 4 focus questions (Follow What/So What/Now What format)

Find out

Decide how your students will gain answers to the questions mentioned above

Exhibit Knowledge

Tell how your students will use computer technology to exhibit their findings.

Assess Their Work

Decide how you will assess process and product

Decide how students will do a self-assessment.

The website:

- Should be self supporting and allow students to work independently
- Should contain links to all the information important to student success.
- Should provide 1-2 research links for each focus question
- Should contain any documents necessary to the completion of the assignment. (rubric, self assessment)
- Should be artistically pleasing and easy to navigate.
- Have at least two critical friends view your work and complete Critical Friend Sheets

Presentation to our class (20 min):

- Show the website along with any supporting documents.
- Concentrate on your process as you discuss this work.
- Pass out hard copies of your website, and any pertinent paperwork.

Assessment:

- Your grade will be determined according to the quality with which you met these requirements. (See *Internet Project Rubric* on class website)
- You will receive feedback from each class member. (See *Internet Project Feedback* on class website)

2. **Techno-sharing** Find 1 internet based on-line project OR 1 piece of educationally appropriate software or hardware. Create an evaluation / description of your chosen project.

- Visit the websites, try to get a demo of any software.
- Make every attempt to contact one teacher who is currently using your chosen item. Include their thoughts of the strengths and weaknesses of this technology.

Classroom presentation: (20 min)

- Demonstrate your chosen techno-learning tool
- Discuss how your choice will be applicable to the wonder, find out, exhibit, assess paradigm.
- Discuss possible benefits and pitfalls.
- Pass out a summary description sheet that offers a quick reference to students in this class. This summary sheet should include enough detail that interested teachers could make use of this technology. (1 page)

3. **Subject Area Exhibition Project.** Create a product that covers a topic appropriate to your subject area or an area of interest.
- Follow these steps:
 - Fill out a contract
 - Create your own feedback rubric
 - Your rubric should be copied and passed to the class to be filled in during your presentation.
 - Do the appropriate research using at least 3 technologically based sources.
 - Have at least two critical friends view your work and complete Critical Friend sheets.

Presentation (30 min)

- Show your product to the class and teach the class about your chosen topic.
- Following your presentation, discuss your process.
 - What worked – what didn't?
 - What have you learned that will help you use this kind of a lesson with students?
 - What were the strengths of using technology – What were the shortfalls?
 - If you were to use this type of lesson of students, what would you do differently? What would you keep the same?
- Pass out copies of all appropriate paperwork (contract, critical friend, etc...)

Grading:

Assignment	% Final Grade	Due Date
Response papers (5) / website eval.	20	See Syllabus
Project #1 - Internet Based Project	20	2/13/07
Project #2 - TechnoSharing	20	3/27/07
Project #3 -Subject Area Presentation	20	5/1/07
Class Participation, Self eval	20	5/8/07

Class Schedule:

Week	Class Activities	Source Materials	What's Due
1/16/07	Introductions / PPT: Technology in Classroom Class Activity: Go over Syllabus, Web Based Classrooms; The Learning Site CD; introduce internet project. lab: Microsoft Word web pages	Learnig Site CD, Class Website, Internet Project Contract	
1/23/07	Topic: Whaleboat model/ Discussion: Response Papers Lab: , Work on Project #1	Child Power by Papert http://www.papert.org/articles/Childpower.html	<ul style="list-style-type: none"> • Response paper#1: Papert • Internet Project Contract
1/30/07	Topic: Standards, Constructivism Discussion: Response Paper PPT: Constructivism Lab: Work on Project #1	ISTE Student Standards Constructivism and computers http://cnets.iste.org/students/s_stands.html http://www.seidl.org/pubs/tec26/flash.html	<ul style="list-style-type: none"> • Response Paper#2: ISTE/ Constructivism
2/6/07	Topic: Educational Web sites (intro); Assessment PPT: Assessment Lab: Work on Projects #1	USM Website Evaluation Kathy Schrock Website Eval. http://library.usm.maine.edu/guides/webeval.html http://school.discovery.com/schrockguide/eval.html	
2/13/07	Class Activity: Project #1 Presentations (20 min)		Project #1 due

2/20/07	<p>Topic: Accessing the web (Course Forum, Phorum, Filamentality, Portaportal,)</p> <p>Discussion: introduce Project #2; present website evaluations</p> <p>Lab: LOTI questionnaire</p>	<p>http://mlti.sad60.k12.me.us http://www.portaportal.com/ http://www.kn.pacbell.com/wired/fil/</p>	Website evaluations (2)
2/27/07	NO CLASS – Spend your time working on Project #2 and/or response paper #3		
3/6/07	<p>Topic: Model for computer use: PW³</p> <p>Presentation: PW³</p> <p>Lab: Work on Project #2 if time</p>	Guide to PW³ computerability.pdf	Response paper #3: What Is Computer Talent Made of?
3/20/07	<p>Topic: Are Computers Educationally valuable?</p> <p>Discussion: Reading response paper</p> <p>Lab: Work on Project #2</p>	<p>Maine Learns The Laptop Initiative - http://www.mainelearns.org/ One on One Computing One-to-One.pdf Technology in Early Childhood Education http://www.nwrel.org/request/june01/intro.html</p>	Response Paper#4: Choose one.
3/27/07	<p>Topic <i>Introduce Project 3</i></p> <p>Lab: Project #2: Techno Sharing Presentations.</p>		Project #2: TechnoSharing due
4/3/07	<p>Topic: Exhibition (examples)</p> <p>Skills: Exhibition software</p> <p>Lab: Work on Proj. #3</p>	<p>Demos: Hypst: Biome, Women, Posters, Magazines</p> <p>The Payoff in Student Learning.pdf</p>	Response Paper#4: The Payoff in Student Learning
4/10/07	<p>Topic: Ethics, copyright</p> <p>Discussion: Response paper</p> <p>Lab: Work on Project #3</p>	<p>Copyright FNO http://fno.org/jun96/legal.html Copyright Law; http://www.copyright.gov/title17/92chap1.html Copyright Simplified http://gaudet.info/learning/educ820/copyrightweb/</p>	Response Paper#5: Copyright
4/17/07	<p>Topic: : <i>Foundation software (FirstClass, Office, AppleWorks, Web 2.0)</i></p> <p>Lab: Work on Project #3</p>		
4/24/07	TBA		
5/1/07	Class Activity: Present Exhibition Projects		Project #3: Exhibition Project due
5/8/07	Final Experience		Self Evaluation