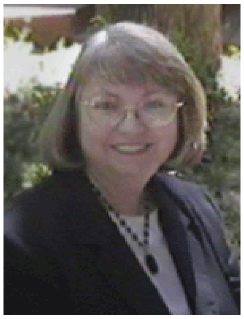
Brock University
Faculty of Education
2006/2007

EDUC 8Y28 Teaching and Learning with Technology
Junior/Intermediate



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Office: Mackenzie Chown C418
Office Hours: Monday 12:00-1:00PM (Hamilton Campus) All other times by appointment, but please ask. I will be happy to visit with you!

Class Times:
Lab 1 Section: Room 14, Monday, 8:00-10:00 December 18, 2006 – March 5, 2007
Lab 2 Section: Room 14, Monday, 10:00-12:00 December 18, 2006 – March 5, 2007

Course Description:
The purpose of this course is to prepare pre-service teachers for the potential for teaching and learning with technology in the classroom. The course will focus on strategies and concrete suggestions for effective integration of communication and information technologies across curriculum in a way that enhances learning, with special emphasis on topics, strands, and expectations detailed by the Ontario Ministry of Education curriculum documents. In addition, the course will identify the knowledge and skills that students need to develop to be considered technologically competent in communication and information technologies while providing opportunities for students to enhance their own skill levels.

Introduction
Teachers who use technology effectively in the classroom engage their students in powerful learning environments that students view as relevant and interesting. However, these teachers have a basic understanding of how to effectively integrate technology and when to integrate technology so that instruction is enhanced. This course introduces pre-service teachers to the challenges and benefits of working with computer technologies, as well as how to construct learning opportunities for students. In this course, students will:

- Articulate basic principles of integrating computer technologies into learning opportunities for students
- Practice using telecommunications, desktop publishing, graphics, data analysis tools, and multimedia for instructional and administrative activities (mastery of these skills will NOT be a learning objective)
- Identify and practice developing appropriate assessment and evaluation strategies for use in a technology-rich classroom
- Design and present lessons across the Ontario Curriculum based on instructional design principles as well as the technology standards set out by ISTE (International Society of Technology in Education)
- Experience hands-on opportunities to use Ministry of Education licensed educational software, which is available in publicly funded schools.

Course Technology & Textbooks
Class will be conducted in the computer lab located in Room 14 (Hamilton campus). There are specific rules you must understand about working in the lab situation:

- Food and drink is not permitted in the lab. Screw top bottles may be permitted during open lab time, but during class, I will require you to leave drinks on the table by the door.

- Printing is usually not free in the lab.

- You will be required to log in using your Brock username and password. You must log off of the computer when you leave the lab to prevent someone else from using your files or accessing your print account.

- I highly suggest that you obtain a flash drive to store documents created in class and in the lab. These can be purchased in the bookstore, at computer stores such as Best Buy or Future Shop, and at discount stores such as Walmart. However, the lab computers do have CD burners if you wish to use CDs to store files.

- Files may be shared between the lab computer and your computer at home through the "Z" drive on the lab computers. For direction regarding how to access the "Z" drive, download the instruction at http://www.brocku.ca/its/helpdesk/students/SFTP%20Badger.pdf

- You will need to obtain access to the Brock WebCT course management tool. We will do this in the second class period. All marks are posted in the course container on WebCT.

- If you wish to work on projects outside of class or outside of the lab, you will need the following:

    - A computer with Internet access. NOTE: Although dial-up is sufficient for working in the online environment of WebCT, you may want to consider a faster connection.

    - Appropriate software applications:

        - **MS Word, PowerPoint, and Excel** (Version 2003 is highly recommended) or AppleWorks (**MS WORKS** is NOT appropriate!!)
        - **Adobe Acrobat Reader** (http://www.adobe.com/products/acrobat/readstep2.html)
        - **Macromedia Flash Player** (http://www.macromedia.com/shockwave/download/download.cgi?P1_Prod_Version=ShockwaveFlash)

- **Shockwave Player** (http://sdc.shockwave.com/shockwave/download/download.cgi?)
- **Internet Explorer 6.0 (**http://www.microsoft.com/windows/ie/downloads/default.mspx#EDAA%20 **)**

There are other tools that will be incorporated into coursework; however, we will be using the trial versions. You will be given directions for accessing Inspiration and others at the appropriate time.

There are no specific textbooks for this class.

Course Outline

Session 1:	Why Teach with Technology?
	- WINTER BREAK –
Session 2:	Introduction to Instructional Models
Session 3:	Strategies for Teaching in a One-Computer Classroom (Center Instructional Model)
Session 4: `	Direct Teach/Demo-Guided-Independent (DGI) Instructional Model
Session 5:	Project-Based Instructional Model
Session 6:	Workshop
Session 7:	Problem-Based Instructional Model
Session 8:	Workshop
Session 9:	Workshop
Session 10:	Problem-Based Instructional Model using Data Analysis Tools

Evaluation
Your final evaluation for the course is an equal (50%) total from each section of 8Y28: (1) Science and Technology and (2) Teaching and Learning with Technology. Course components for evaluation are listed below.

Academic Honesty Policy

Academic honesty is expected of all students by the University and by the professor of this class. The academic honesty policy for this class is based upon the University policy as stated in the Faculty Handbook (http://www.brocku.ca/secretariat/handbook/fhb3/15.html#15). The policy translates this way in a technology class:

- ✓ You will be creating original projects and you are therefore responsible for safeguarding the files and information you create. Do not give or loan your files/floppies/flash drives to another who could copy files without your knowledge. Both the “giver” and the “borrower” are responsible. No credit will be given.
- ✓ Projects created in this class, with the exception of assigned group projects, are considered to be individual projects. Although you are expected to work closely with one another, collaborate with each other, and help when needed, you may not work together to create one project so that both students receive grade credit unless

specifically stated in the assignment. DO NOT turn in a lesson plan or project that is identical to the work of another student OR copied verbatim from an online lesson plan. You are expected to adapt ideas taken from the Internet to your own purposes and ALWAYS in your own words. No credit will be given as this is a type of plagiarism.

- ✓ Turning in a project with another student's name on it will be considered stealing work. No credit will be given.
- ✓ All graphics used in class projects will be original graphics or ClipArt from programs being used in the Course. Graphics collected from the Internet and used in projects MUST BE cited with the URL and linked to the original source.

In other words, the work you turn in for this class MUST BE YOUR OWN! Activity Types Learning Chart ideas will be stated in your own words and adapted to your needs. All artwork (graphics or images) must be your own OR cited in an attached bibliography. If your work looks identical to another student's or work on the Internet, you will not be given credit. You will receive a zero or redo the work.

Course Evaluation

Evaluation Item	% of Final Mark	Due Date
Attendance, Participation, Professionalism	10% (10 points)	Throughout the course
Assignment A: Activity Type Learning Chart	15% (15 points)	February 5, 2007
Assignment B: Curriculum Project	30% (30 points)	March 5, 2007
Assignment C: Digital Storytelling Multimedia Project-Based Lesson	25% (25 points)	February 19, 2007
Assignment D: Skill Assignment	20% (20 points)	March 5, 2007

Projects are evaluated with a rubric or checklist which will be provided to you in the project description. Because this is a mastery course, and perfecting skills is the goal rather than "getting it right the first time," you have the option to redo any assignment for a higher mark. Re-submitted assignments are due no later than March 5, 2007 (last class meeting).

Assignment Descriptions

Attendance, Participation, Professionalism
Because of the "hands-on" nature of this class (e.g., students learn to apply instructional technology concepts and teaching strategies by experiencing and participating in class activities and demonstrations), your absence from these activities greatly hinders your ability to develop background knowledge and understanding. In addition, this course consists of

only 10 sessions for a total of 20 hours. Because of this time constraint, it is essential that you attend every class. If you miss one class, you will have been absent for 10% of the course. Students are responsible for all class work missed, regardless of the reason for the absence. **Contact your instructor before class (e-mail or phone) if you cannot attend or must be late** due to a personal illness, injury, or a family emergency. In all aspects of this program, you will be expected to arrive on time because lateness disrupts the class.

If you must miss a class, a make-up assignment is required or a point will be deducted. This can be an option from Assignment D. In addition, official documentation for the reasons for absences must be submitted if more than two classes are missed.

Late work is NOT accepted. However, because this is a technology class where the computer does eat your homework, students are given a two-day (weekday) grace period provided the professor is notified at least two days prior to the due date of the project. The grace period will not be given if requested on the due date.

Class Deliverables:

Marks will be based on the following assignments as well as attendance described above. Please feel free to combine these assignments with assignments for your other classes. For example, if you are required to construct a WebQuest for your Social Studies course, then consider attending the WebQuest workshop and creating the WebQuest (Assignment D). Activities from your Science methods class, with permission from your Science methods instructor, might include your eBook presentations for a famous Science Inventor, documentation of Project Wild workshop, or Science Fair attendance for Assignment C. I will be happy to work with you to see that your projects for this class can be used in other classes.

Assignment A: Activity Type Learning Charts
You will create three learning design charts that clearly outline the procedural steps for a creative lesson formatted in one of the three following instructional models: center/independent, project-based, Direct Teach, problem-based, or DGI instructional models.

Assignment B: Curriculum Project
You will be creating an edublog that can be used with students in your Block I or Block II class or a fictitious class of your choosing. Your task is to create a series of posts over the ten week session that highlight online resources aligned with specific subject expectations. Your edublog will be graded using a rubric and check sheet.

Assignment C: Digital Storytelling Multimedia Project-Based Lesson
Your task is to create an eBook that is age appropriate for a specified subject area. eBooks, defined as electronic books or any book published in electronic or digital form, can play a major role in instruction. Your eBook will be marked per check sheet provided with project description. Your eBook may be created with PowerPoint, Movie Maker, or an online web

page editor. You must choose the tool you wish to use to create the book, attend the appropriate workshop to learn how to create the eBook or follow the tutorials provided, and submit by the due date on the chart above.

Assignment D: Skill Assignment
A series of workshops will be offered in class and out side of class time. You will choose one to attend and complete the project described in the workshop. Evaluation rubric and/or check sheet will be provided. If possible, choose a workshop that will create a project for one of your other classes (WebQuests, Concept Maps, Science Inventor, field trips, etc.)