

University of Winnipeg
Faculty of Education
Course Outline
Integrating Technology into Senior Years Teaching (EDUC 4602-151)

Term: Winter 2015 (3 credit hours)

Instructor	A. Appel	Office:	0GM08
Phone:	204-786-9254	Office Hrs:	By appointment
E-mail:	Nexus address	Class time:	Fri. 8:30 – 12:20 PM
Web site:	nexus.uwinnipeg.ca	Classroom	Lockhart Hall, room 1L06
Start and End Dates: Fri., Jan. 9 th – Fri., March 13 th 2015			
<ul style="list-style-type: none"> • IMPORTANT: In order to meet the filter criterion when sending email outside of Nexus, the Subject line in your message must mention Course 4602 & your section number. As instructors are not responsible for misdirected email messages, please notify the instructor if you have not received receipt notification by your next class. Please use Nexus whenever possible to contact instructor. • Virus precautions: DO NOT send attachments without prior agreement, or unless required by the course, as they will be discarded without being read. • Computer: This course requires you to work on computers beyond the classroom. You need to have access to a computer connected to the internet. 			

Reading Week: February 16th - February 20th inclusive

Voluntary withdrawal date (without academic penalty): February 23, 2015

Introduction

In general terms, technologies are the machines, materials and processes we use to do work. Manitobans use technologies in all aspects of our lives: to do work, produce goods, perform services and carry out other useful activities. The workplace and post-secondary institutions expect high school graduates to be able to use basic information and communication technologies. Therefore, **technology education needs to be present in schools from kindergarten to grade twelve** to prepare students to use and apply technology in effective, efficient and ethical ways.

Within an effective educational setting, technology can enable students to become:

- capable information technology users
- information seekers, analyzers, and evaluators
- problem solvers and decision makers
- creative and effective users of productivity tools
- communicators, collaborators, publishers, and producers
- informed, responsible, and contributing citizens

Manitoba Education has developed a continuum model for Literacy with Information and Communication Technology (ICT) Across the Curriculum that outlines general and specific learner outcomes related to technology knowledge and skills.

What is information and communication technology (ICT)?

Information and communication technologies include computers, laptops, digital or video cameras, digital microscopes, scanners, cell phones, electronic games, digital audio devices, global positioning systems, electronic whiteboards, the Internet, et cetera. ICTs in the classroom will continue to evolve as new technologies emerge over time.

What is Literacy with ICT?

Literacy with ICT means choosing and using ICT, responsibly and ethically, to support critical and creative thinking about information and about communication as citizens of the global community. Literacy with ICT consists of critical and creative thinking, ethics and responsibility, and ICT literacy.

Technology education is to be integrated into all subject areas so that learner outcomes are achieved while students are learning other content areas such as language arts, social studies, mathematics and science. By the 2008-09 school year it was required that:

All K-8 classrooms in all Manitoba schools and divisions use the Developmental Continuum for Literacy with ICT and report to parents on student literacy with ICT.

Although this goal addresses K-8, it is also expected that Literacy with ICT is extended throughout K-12. The Literacy with ICT Developmental Continuum organizes technology knowledge and skills outcomes in five strands in the Cognitive Domain (Plan and Question; Gather and Make Sense; Produce to Show Understanding; Communicate; Reflect); and four strands in the Affective Domain (Ethics and Responsibility; Social Implications; Collaboration; Motivation and Confidence.)

Student competence in each technology outcome develops across three levels as they demonstrate increasing understanding and ability. These levels are

- Knows-Comprehends-Becomes Aware
- Analyzes-Applies-Believes
- Synthesizes-Evaluates-Values

These K-8 outcomes are also expected to be part of Grade 9 -12 teaching and learning as students develop increasing levels of competency and apply higher levels of critical thinking within the framework.

Prerequisite Skills and Requirements

This course will focus on students' applying technology to their teaching in a project-based format, and not on teaching various technical skills. The ICT curriculum outcomes can be met using a wide variety of technology applications. For example, one student could integrate the use of a digital camera into their teaching, while another could use a computer spreadsheet in their instruction. Both would be integrating technology into their teaching and specifying both subject area outcomes and ICT outcomes in their planning documents.

It is expected that students will be:

- able to access their email accounts and the Internet on a daily basis.
- able to search the Internet effectively.
- familiar with word processors, spreadsheets and presentation software.
- confident in using computers and willing to explore old and new applications.
- knowledgeable of the Program of Studies for their teaching area.

Note: *The Instructor will, as much as possible, facilitate student learning in any of the above areas, but not to the detriment of the course objectives.*

Calendar Description

This course will focus on the innovative use of technology in the classroom to promote critical thinking in students. Senior years students in ALL curriculum areas will be introduced to the skills needed to develop integrated lesson plans in which they weave subject area outcomes with technology outcomes. Topics will include learning theory in relation to critical thinking, essentials of curriculum development, Manitoba technology frameworks, lesson planning for technology integration, and educational applications of information technology. Continuing parallel themes will be the rationale and development of Technology as a Foundation Skill, and the development of Literacy with ICT Across the Curriculum in Manitoba schools.

Objectives

Students will be provided with opportunities to develop a rich understanding of how technology curriculum materials are structured, and how to structure technology learning opportunities by weaving subject area outcomes and technology outcomes into workable classroom applications.

Students who you will teach one day have to be able to research, investigate, and create using technology, not just post a status or watch a video.

Students will:

- understand the role that technology can play in teaching and learning
- develop understanding of the security, social, and ethical issues involved with technology use in education and establish personal principles regarding the responsible use of technology
- be aware of research regarding the impact of technology on teaching and learning
- understand the general principles of curriculum development and implementation
- explore and examine tools and resources available to educators to effectively integrate technology into the classroom
- develop skills to use and create meaningful and innovative learning activities that make effective use of technology in education
- engage in careful analysis, problem solving, and reflection on their own classroom practices
- be able to share insights, experiences, and teaching strategies, and to discuss key issues
- focus on the active engagement of students developing positive attitudes towards technology, reducing technology related anxiety, and building confidence in technology ability
- be required to register for several free Web 2.0 applications during this course in order to complete assignments / projects.

Course Content

1. Educational Technology in Context: The Big Picture
 - technology literacy and the digital divide
 - current issues: social, legal, ethical
2. Investigating Literacy with ICT Across the Curriculum
 - principles of curriculum development and implementation
 - enhancing and extending learning with technology integration
3. Effective Planning and Implementation of ICT in Education
 - Instruction and assessment to develop critical thinking skills
 - assessing appropriate ICT learning resources
4. Project-Based Learning Activities using Subject Area Outcomes Merged with Technology Curriculum Outcomes
 - cross curricular lesson planning with innovative technology integration

Schedule

The following *tentative* schedule is provided as a guideline for students to help prepare for the sessions. Timelines for topics should be considered a guide only. Time constraints and other unforeseen factors may require that some of the topics be omitted or covered in less detail. Further detail will be given as topics are developed. This will allow some flexibility in approach to address student interests and needs.

Class	Topics	Comments
Class 1 Jan. 9	<ul style="list-style-type: none"> • Intro. Outline and expectations. Explanations for all assignments • Flipping The Class – use of YouTube link • Ten Pros & Cons of Flipping the Classroom • Use of Technology 2014 PPT- 10 pages • A guidebook for Social Media in the classroom • Digital divide – the new 21st century literacy • Digital Citizenship article / discussions – digital citizen JPG • Lesson planning – Six Mistakes You Might Be Making with Technology • Issues for the 21st century • Bitcoin • Learning Outcomes / authentic assessment • Will the Net make us freer? 	<p>Reflection assignment 1 assigned <i>Are You A Techno-Constructivist?</i></p> <p>Register for Microteaching. (Current issue with educational technology use, or a research article discussing the impact of technology on teaching and learning)</p>
Class 2 Jan. 16	<ul style="list-style-type: none"> • Microteaching presented • Technology use in education: listening to the research • Is Google making us stupid? • Curriculum development – Doonesbury on Multitasking in Class • Survey Monkey – polling for knowledge – take survey • Fakebook • Prezi • A number of other apps 	<p>Microteaching presented (10%) Reflection assignment 1 (5%) due Reflection assignment 2 assigned</p>
Class 3 Jan. 23	<ul style="list-style-type: none"> • Curriculum Development – Theory and Practice • Understanding Literacy with ICT • Assistive technology & alternate presentation forms (Prezi) • LMS (Learning Management Systems) • Tackk – build a webpage • A number of other apps • Top ten mistakes in using technology 	<p>Reflection assignment 2 (5%) due</p> <p>Contributing to an LMS (Edmodo) assigned</p>
Class 4 Jan. 30	<ul style="list-style-type: none"> • Integrating ICT into your subject / Turnitin rubric for evaluating sources • Teaching and social media / online reputation • Skills needed in 21st century • Demos of Socrative & Class Dojo – why posting online is good / Twitter – following, Dr. Seus on Twitter, 10 powerful Twitter tools • Team Viewer demo'd • Quizzes links Quizstar & Quizinator • iPads in schools. Analyzing iPad myths / iPad stuff in folder 	<p>Register for Project 1 (group) iPads in schools – useful apps / guest speaker video shown & Reflection assignment #3 assigned on this Contributing to an LMS due (10%)</p>
Class 5 Feb. 6	<ul style="list-style-type: none"> • Presentations – Project 1 • Remind Software • Scan QR codes / match joke & punchline • Create QR codes 	<p>Reflection assignment #3 due (8%) Project 1 group presentations (15%) QR code generation assigned</p>

Class 6 Feb. 13	<ul style="list-style-type: none"> • The need to combat false information – Snopes • Showing Results from Ignorance Survey – what does this say about all that info out there? – Misinformation example • The new copyright act Bill C-11 • The Copyright Debate / File sharing lawsuits • Open Cultural Link – millions of free images • Internet Archive • Phishing / Spam attacks – examples / Bogus Sites • Addictions / hatred online / plagiarism – Louis C.K. hates cells • Modern educator tool belt • Ideas to inspire (links) / Showbie & Slideshare • Alternate classrooms / augmented reality / games / making books 	QR code generation due Reflection assignment #4 assigned Assign Wayback Assignment Assign Crossword
Class 7 Feb. 27	<ul style="list-style-type: none"> • Assessing ICT learning resources • A history of technology in the classroom – Tandy for 1989 • “1984” • Preparing Project #2 	Reflection assignment #4 due (8%) Wayback Assignment due Crossword Assignment due Register for Project 2
Class 8 Mar. 6	<ul style="list-style-type: none"> • Presentations – Project 2 • How to deal with e-mail 	Project 2 presented (20%)
Class 9 Mar. 13	<ul style="list-style-type: none"> • Presentations – Project 2 • Net myths re: texts / tweets • Have patience for unconnected people • Three different things You can do with Google Classroom • Hundreds of free tools for teachers 	Project 2 presented

Evaluation Structure

- All materials submitted for evaluation in this course must be submitted as **text, Word, PowerPoint, or PDF** files.
- There is no expectation for any formal style when reflections and reports are required. Specific details for each assignment will be discussed in the first class and online in our learning community on the nexus.uwinnipeg.ca site.
- **There is no final exam.** The final mark will be based on the **quality of assignments completed, instructional skills as demonstrated in class presentations, and class participation.**

The following is the list of assignment categories that must be completed:

1. Microteaching Topic - Value 10%

This is an opportunity to plan for, to lead, and to support the learning of peers.

The topic may include:

- a current issue with educational technology use (social, legal, ethical) or
- a research article discussing the impact of technology on teaching and learning
- or other (by mutual agreement)

2. Projects - Value - 35%

These are opportunities to develop and present lesson plans that would take from 1 to 3 classes to teach **in which subject area outcomes are merged with ICT technology outcomes.** The resulting project lesson plan must include components to determine students' entry level knowledge, address students' misconceptions, focus student interest, and assess and evaluate student performance. **These project lesson plans must be unique and innovative; your two projects must not be from the same topic and should not duplicate the work of other students.** Project 1, worth 15%, will be done as part of a group and Project 2, worth 20%, is to be done individually. Both are to be presented to the class.

3. In Class Assignments and Engaged Learning: Value - 35%

Throughout this course, a number of small assignments will be used to focus discussion, expand student thought, and develop related expertise (four reflections totalling 26%). Active class participation and attendance will also factor into this evaluation

component (9%). Participation means **regular and punctual attendance** at class and active participation in class discussion and activities which will show evidence of having completed reading assignments, and demonstrating awareness of topics being considered by volunteering relevant and meaningful contributions to discussions in progress.

4. Dealing with an LMS (Learning Management System) – 10%

Contribution(s) will be made to a LMS different from the University's Nexus (Desire 2 Learn) to allow students to see how they may use their own LMS.

5. Additional Contributions using software suggested in class – 10%

Students will be asked from time to time to produce materials using software that will be demonstrated in class which will have no cost to the student, such as crosswords, web archives, a QR code generator, cartoon software, etc..

IMPORTANT: Many materials will be made available online. Class expectation is that students check our online community regularly. Online course materials may be viewed on the World Wide Web using computer terminals available at the University of Winnipeg library or any computer with access to the internet. All announcements, updates, and guidelines on individual assignments may be posted at the course online community site in Nexus. Throughout the term, students are **required** to refer to the postings and the Online Course Readings at the aforementioned web site in order to prepare for various assignments in the course. As mentioned before, students will be required to register with websites / software (without additional cost) in order to complete all assignments and fully participate in this class. **There is no official single text for this course.**

DUE DATES: Reflection assignments given in a class will have to be submitted before the next class. **In order to meet various institutional deadlines**, assignment deadlines are final and are not normally subject to change. There will be a **penalty** deduction of **ten percent (10%)** of the assignment total **per day** for late submissions. Late submissions may not be accepted **without valid medical documentation**. Please note that Saturday and Sunday will be included in calculating penalties.

Tentative Grading System

Assignments will be graded in the following manner:

A+	Above 97	C+	70-77
A	94-97	C	60-69
A-	90-93	D	50-59
B+	85-89	F	Below 50
B	78-84		

University Policies

20% of your assignments and marks will be completed and returned to you prior to the voluntary withdrawal date (see page one).

Students with documented disabilities, temporary or chronic medical conditions requiring academic accommodations for

tests/exams (e.g., private space) or during lectures/laboratories (e.g., access to volunteer note-takers) are encouraged to contact Accessibility Services (AS) at 204-786-9771 or email accessibilityservices@uwinnipeg.ca to discuss appropriate options. Specific information about AS is available on-line at <http://www.uwinnipeg.ca/accessibility>. All information about a student's disability or medical condition remains confidential.

The University of Winnipeg promotes a scent-free environment. Please be respectful of the needs of fellow classmates and the instructor by avoiding the use of scented products while attending class. Exposure to perfumes and other scented products (such as lotion) can trigger serious health reactions in persons with asthma, allergies, migraines or chemical sensitivities.

Students are encouraged to familiarize themselves with the Academic Regulations and Policies found in the University of Winnipeg Course Calendar, available online at <http://www.uwinnipeg.ca/index/cms-filesystem-action/pdfs/calendar/RegulationsandPolicies.pdf>. Particular attention should be given to subsections 8 (Student Discipline), 9 (Senate Appeals), and 10 (Grade Appeals). Please note, in particular, the subsection of Student Discipline pertaining to plagiarism which reads in part "Plagiarism is a form of academic dishonesty in which individuals present published or unpublished work (written, electronic or other) of another person or persons, in its entirety or in part, as their own. While scholarship quite properly rests upon examining and referring to the thoughts and writings of others, when excerpts are used in any work submitted for evaluation, the sources must be acknowledged, using an accepted form for the discipline." (University of Winnipeg, 2014, Section 8(a).) For a more comprehensive listing and discussion on acts of plagiarism and forms of misconduct refer to the above mentioned sections of the online calendar.

Students may not submit one paper for credit in two different courses without the written consent of each instructor.

All final grades are tentative until approved by the Senate Committee on Academic Standards, which issues grades on behalf of the University of Winnipeg Senate.

Students who plan to conduct research interviews, focus groups, surveys, or any other method of collecting data from any person, even a family member, must obtain the approval of the UHREB before commencing data collection. Exceptions are research activities in class as a learning exercise. See <http://www.uwinnipeg.ca/research/human-ethics.html> for submission requirements and deadlines.

All students, faculty and staff have the right to participate, learn and work in an environment that is free of harassment and discrimination. The ***UW Respectful Working and Learning Environment Policy*** may be found online at www.uwinnipeg.ca/respect.

It is the student's responsibility to retain a backup copy of ALL assignments submitted for grading; in the event of loss or theft, a duplicate copy is required.

Unless it is part of a class activity or assignment, out of respect to your fellow students and the instructor, please limit cell phone use to breaks and out of class time. Texting, emailing and internet surfing during class is distracting to students and the instructor, unless it is being done as part of a class activity.

Seriously, no one who is using the technology appropriately just looks down at their crotch and smiles ☺

Suggested Readings (others provided in Nexus during the term):

- 2012 Horizon Report - <http://www.nmc.org/publications/horizon-report-2012-higher-ed-edition>
- Manitoba Education and Training: *Curriculum Development and Integration* <http://www.edu.gov.mb.ca/k12/cur/index.html>
- Manitoba Education and Training (1997): *Curricular Connections: Elements of Integration in the Classroom*, <http://www.edu.gov.mb.ca/k12/docs/support/currconn/index.html>
- Manitoba Education and Training (2006): *Literacy with ICT Across the Curriculum*. A Model for 21st Century Learning from K-12 <http://www.edu.gov.mb.ca/k12/tech/licit/index.html>
- North Central Regional Educational Laboratory (1999, updated 2005). *Critical Issue: Using Technology to Improve Student Achievement*. <http://www.ncrel.org/sdrs/areas/issues/methods/technlgy/te800.htm>
- North Central Regional Educational Laboratory (1997). *Critical Issue: Ensuring Equitable Use of Education Technology*. <http://www.ncrel.org/sdrs/areas/issues/methods/technlgy/te400.htm>.