


# **Integrating ICT Outcomes Using Blackboard/WebCT**

*BYTE 2011*

Find out how you can use the online resources of Manitoba's web-based courses to integrate senior years ICT skills with your face-to-face classes – for example, integrating specific learning outcomes from Applying ICT 1 and 2(15F). You'll be surprised how many ICT skills students use while participating in an online course or in a learning community, built around tools that come with the Blackboard system (formerly known as WebCT).



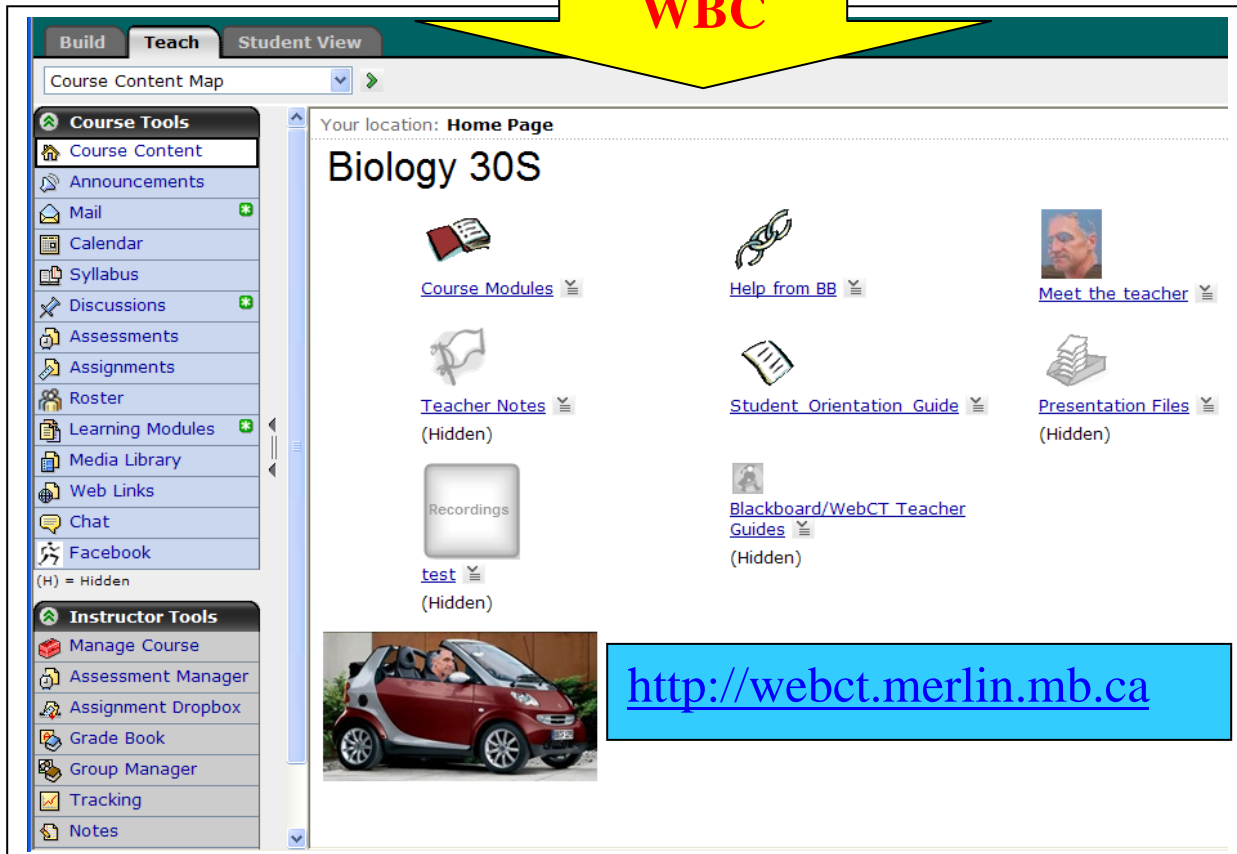
Senior Years  
Information and  
Communication  
Technology

Manitoba Curriculum  
Framework of Outcomes

<http://www.edu.gov.mb.ca/k12/cur/ict/framework.html>

Connecting  
ICT  
with  
WBC

Manitoba 



The screenshot shows a Blackboard/Canvas LMS interface. At the top, there are tabs for 'Build', 'Teach', and 'Student View'. Below these is a 'Course Content Map' dropdown menu. On the left, there are two toolbars: 'Course Tools' and 'Instructor Tools'. The 'Course Tools' toolbar includes links for Course Content, Announcements, Mail, Calendar, Syllabus, Discussions, Assessments, Assignments, Roster, Learning Modules, Media Library, Web Links, Chat, and Facebook. The 'Instructor Tools' toolbar includes links for Manage Course, Assessment Manager, Assignment Dropbox, Grade Book, Group Manager, Tracking, and Notes. The main content area shows the course title 'Biology 30S' and the user's location 'Home Page'. Below the title, there are several links with icons: 'Course Modules', 'Help from BB', 'Meet the teacher', 'Teacher Notes (Hidden)', 'Student Orientation Guide', 'Presentation Files (Hidden)', 'Recordings', and 'Blackboard/WebCT Teacher Guides (Hidden)'. At the bottom left of the main content area, there is a small image of a red Smart car. At the bottom right, there is a blue box containing the URL <http://webct.merlin.mb.ca>.

## List of Courses

Applying ICT 1 *	15F
Applying ICT 2 *	15F
Keyboarding *	25S
Print Communications *	25S
Digital Pictures	25S
Digital Filmmaking	25S
Desktop Publishing *	35S
Web Design *	35S
Interactive Websites *	35S
Data Collection and Analysis *	35S
Relational Databases *	35S
2-D Animation	35S
3-D Modelling	35S
Broadcast Media	35S
Interactive Media	35S

***The following pages are taken from the ICT Curriculum Framework.***

***The yellow highlighted texts represent the outcomes that could be covered if Blackboard/WebCT is used with your face-to-face class.***

## ***ICT Learning Outcomes***

This framework contains the general and specific learning outcomes for Senior Years ICT courses. The learning outcomes are concise statements of the learning that students are expected to demonstrate in ICT courses by the end of each course. This learning includes:

- Knowledge: Students need to know facts, concepts, principles, and generalizations. The knowledge learned in ICT includes the vocabulary and function of computer hardware and software, standards and conventions, health and safety issues, and career information.
- Skills and Strategies: Students need to know and apply processes and strategies in developing skills. The skills include problem solving, critical thinking, metacognition, communication, and teamwork.
- Attitudes: Students need to develop attitudes and habits that include setting goals, thinking strategically in approaching a task, considering personal health and safety, acting ethically and morally, and reflecting on their own performance.

## ***General Learning Outcomes***

The general learning outcomes (GLOs) are broad statements describing student learning. These outcomes are interrelated and interdependent. Each outcome is to be achieved through a variety of learning strategies and experiences.

The four GLOs of the ICT framework reflect the four foundation skill areas as outlined in A Foundation for Excellence (1995):

1. Human Relations: Students will demonstrate tolerance, teamwork, leadership, and responsible, ethical, and moral behaviour.
2. Literacy and Communication: Students will demonstrate effective communication skills in listening, speaking, reading, writing, viewing, and representing.
3. Problem Solving: Students will demonstrate appropriate problem-solving skills while seeking solutions to technological challenges.
4. Technology: Students will develop the abilities to use, manage, and understand information and communication technologies by exploring software, programming languages, and computer-controlled devices.



***One outcome not mentioned in the ICT Framework***

**→ Develop life-long skills in using a Learning Management System (LMS)**

- **Students will likely be using LMS's throughout their educational years**
  - Blackboard/WebCT
  - Moodle
  - Angel
  - Desire2Learn
  - Saba
  - Joomla
- **many careers have upgrading options using LMS**
  - automotive technician
  - nurse

## Specific Learning Outcomes Common to All Courses

Senior Years teachers must continue to reinforce the learning that occurred in Early and Middle Years.

These learning outcomes support the descriptors listed in Literacy with *ICT Across the Curriculum: A Developmental Continuum*.

1. Evaluate original **inquiry questions and create new questions** for future inquiry. (P-3.1)
2. **Incorporate new information** with prior knowledge and adjust inquiry strategies. (G-3.1)
3. **Assess** textual, numerical, aural, and visual **information**, as well as the **source of the media**, to determine context, perspective, bias, and/or motive.(G-3.2)
4. **Self-assess ICT representations** and go beyond established criteria by enhancing meaning and/or artistry, according to topic, audience, purpose, and occasion. (Pr-3.2)
5. **Adjust communication** based on self-evaluation and feedback from a global audience. (C-3.1)
6. **Self-monitor learning goals**, reflect on the value of ICT to complete learning tasks, and set personal goals for using ICT to learn. (R-3.1)
7. **Identify possible health issues** associated with using ICT. (Examples: ergonomic factors, inactivity, carpal tunnel syndrome, repetitive stress injury, eye strain, addictive/obsessive behaviour...) (E-1.4)
8. Apply school division's **acceptable-use policy** for ICT.(E-2.1)
9. **Apply safety guidelines when communicating electronically. (Examples: email, web pages, threaded discussions, videoconferences, chats, instant messages, camera phones, wikis, blogs, podcasts, online whiteboards...)** (E-2.2)
10. Explain **consequences of unethical behaviour**. (Examples: cyberbullying, promotion of prejudice and hatred, copyright violations, plagiarism, wilful destruction/manipulation of data, hacking, propagation of viruses, spamming, software piracy, consumer fraud, identity theft...) (E-2.3)
11. Apply guidelines for **ethical and responsible use of ICT**. (Examples: respect others' privacy, protect personal information, follow security procedures, respect intellectual property and credit sources, use licensed software, discourage cyberbullying, collect data ethically, analyze information ethically...) (E-2.4)
12. Evaluate **effects of personal ICT behaviour on others**.(E-3.1)
13. **Weigh personal benefits and risks of using ICT**.(E-3.2)
14. Analyze various ICT skills and competencies required in personal **career choices**. (S-2.2)
15. Analyze **advantages and disadvantages of ICT use in society**. (Examples: lack of access, consequences of unethical use, ease of manipulating data, ease of communicating information, addictive/obsessive behaviour...) (S-2.3)
16. Weigh society's **right to information access** against right to **individual privacy**. (S-3.1)
17. Weigh **benefits versus risks** to society of creating new ICTs. (Example: outsourcing jobs...) (S-3.2)
18. Lead a group in the process of **collaborative learning**. (Examples: motivate team members, value contributions of team members, manage group conflict, work toward consensus...) (Co-3.1)
19. Weigh **benefits and challenges of collaborating on learning** with ICT. (Co-3.2)
20. **Synthesize knowledge and information to solve unique ICT problems**. (M-3.1)

# ***Applying Information and Communication Technology 1***

Students will:

1. **Organize and categorize information** using:
  - Outlines
  - Graphic organizers
  - Spreadsheets .
  - **Tables**
  - Charts
  - **File directories**
2. **Solve problems**, reach conclusions, make decisions, and/or propose answers to questions by analyzing data/information and concepts **using a spreadsheet or database**.
3. **Assess** textual, numerical, aural, and visual **information**, as well as the **sources of the media**, to determine context, perspective, bias, and/or motive.
4. **Analyze whether information** from media sources **has been manipulated**. (Examples: bogus websites, bogus email, spam, graphs showing selected data...)
5. **Analyze whether information** collected from media sources **is sufficient and/or suitable** for purpose and audience. Sources include websites, CD-ROMs, and email
6. **Discuss** information, ideas, and/or electronic work using tools for electronic communication. (Examples: email, electronic whiteboards, web pages, threaded discussions, videoconferences, chats, instant messages, camera phones, wikis, blogs, podcasts, online whiteboards...)



## ***Applying Information and Communication Technology 2***

Specific Learning Outcomes - Students will:

1. **Design electronic plans** including:
  - Outlines
  - Timelines
  - Storyboards
2. **Design and create non-sequential web pages** and branching **multimedia presentations**.
3. Simulate an abstract concept or real process using **animation**.
4. **Analyze whether information** collected from media sources **is sufficient and/or suitable** for purpose and audience. Sources include websites, CD-ROMs, and email.
5. **Discuss** information, ideas, and/or electronic work using tools for electronic communication. (Examples: **email, electronic whiteboards, webpages, threaded discussions, videoconferences, chats, instant messages, camera phones, wikis, blogs, podcasts, online whiteboards...**)

## Link between Applying ICT Courses and Literacy with ICT Continuum

Applying Information and Communication Technology 1 and Applying Information and Communication Technology 2 have a strong connection to Literacy with ICT Across the Curriculum: A Developmental Continuum. The table below shows these connections to the Developmental Continuum and the prior learning that supports the learning outcomes for both courses.

Specific learning outcomes from Applying ICT courses	Prior learning and supporting skills from Literacy with ICT Developmental Continuum
Organize and categorize information using: • outlines • tables • graphic organizers • charts • spreadsheets • file directories  Literacy with ICT Developmental Continuum G-2.3	sa2.3 <b>moves data between applications</b>  sc2.1 <b>customizes the template</b> of a graphic organizer, table, multimedia presentation, spreadsheet, and/or database
Solve problems, reach conclusions, make decisions, and/or propose answers to questions by analyzing data/information and concepts using a spreadsheet or database.  Literacy with ICT Developmental Continuum Pr-2.3	Pr-1.3 <b>edits electronic products</b> according to established criteria, conventions, and/or standards (Examples: text, images, sound, concept maps, multimedia presentations, email, tables, spreadsheets, graphs, video, animation, web pages, wikis, blogs...)  sa2.3 moves data between applications  sc2.1 customizes the template of a graphic organizer, table, multimedia presentation, spreadsheet, and/or database
Assess textual, numerical, aural, and visual information, as well as the sources of the media, to determine context, perspective, bias, and/or motive.  Literacy with ICT Developmental Continuum G-3.2	G-1.1 <b>finds and collects information</b> (text, images, data, audio, video) from given media sources (Examples: within applications, CD-ROMs, the Internet, broadcast media, email...)  sa1.11 <b>sends and receives text messages and electronic files using rules of etiquette</b> (Examples: not typing in all capital letters, filling in subject line...)  G-2.1 <b>refines information searches</b> using a variety of media sources  sa2.4 <b>chooses and uses search engines</b> using own keywords  sa2.5 <b>refines searches</b> using Boolean logic  G-2.2 <b>analyzes</b> textual, numerical, aural, and visual <b>information</b> gathered from media sources, applying established criteria (Examples: accuracy, currency, credibility, validity, reliability, objectivity, fairness, relevance...) sa2.6 <b>investigates the currency and/or authorship of electronic sources such as websites</b> , email, CD-ROMs, syndications, blogs, wikis, podcasts, and broadcast media (Examples: checking date last modified, analyzing the meta-web information of a URL...)

continued on next page . . . . .

. . . . Link to prior learning continued

<p>Analyze whether information from media sources has been manipulated. (Examples: bogus websites, bogus email, spam, graphs showing selected data...)</p> <p>Literacy with ICT Developmental Continuum G-2.5</p>	
<p>Analyze whether information collected from media sources is sufficient and/or suitable for purpose and audience. Sources include websites, CD-ROMs, email.</p> <p>Literacy with ICT Developmental Continuum G-2.4</p>	<p>sb1.3 captures digital data (Examples: with microphones, digital audio-recording devices, digital cameras, video cameras, GPS, probeware...)</p>
<p>Discuss information, ideas, and/or electronic work using tools for electronic communication. (Examples: email, electronic whiteboards, web pages, threaded discussions, videoconferences, chats, instant messages, camera phones, wikis, blogs, podcasts, online whiteboards...)</p> <p>Literacy with ICT Developmental Continuum C-2.1</p>	<p>C-1.1 displays and/or discusses electronic work (Examples: text, images, sound, concept maps, multimedia presentations, email, tables, spreadsheets, graphs, video, animation, web pages, wikis, blogs...)</p>
<p>Design electronic plans including:</p> <ul style="list-style-type: none"> <li>• outline</li> <li>• timeline</li> <li>• storyboard</li> </ul> <p>Literacy with ICT Developmental Continuum P-3.2</p>	<p>sa2.2 manages electronic files and folders</p> <p>sa2.3 moves data between applications</p> <p>sc1.3 inserts and edits text, data, images, sound, video, and/or formulas</p> <p>sc2.3 constructs graphic organizers, tables, spreadsheets, databases, multimedia presentations, and/or web pages</p>
<p>Design and create non-sequential web pages and branching multimedia presentations.</p> <p>Literacy with ICT Developmental Continuum Pr-3.1</p>	<p>sc1.2 draws images using electronic tools</p>

# Applying Information and Communication Technology 1

The purpose of the course is to reinforce and extend the ICT knowledge, attitudes, and skills acquired by students in the Early and Middle Years. The course will further prepare students to use ICT to learn and demonstrate their learning in all Senior Years courses.

## Orientation to the Course and Activating Prior Knowledge

### Orientation

- Review the school's ICT acceptable-use policy.
- List the software and hardware available at the school.
- Poll students to determine their access to ICT outside of school.
- Review procedures/rules/limitations for accessing school networks from home.
- Review management of electronic files.
- Review health issues, such as: Ergonomics
- Review ethical and legal issues.

### Word Processing

- Review touch-keying techniques.
- Review document editing and formatting.
- Review insertion and manipulation of objects, such as:
  - Resizing
  - Text wrapping
  - Layout
- Review rules for citing the work of others.

#### 1. Organize and categorize information using:

- Outlines
- Tables
- Graphic organizers
- Charts
- Spreadsheets
- Databases
- File directories and organization of folders

#### 2. Solve problems, reach conclusions, make decisions, and/or propose answers to questions by analyzing data/information and concepts using a spreadsheet or database.

#### 3. Assess textual, numerical, aural, and visual information, as well as the sources of the media, to determine context, perspective, bias, and/or motive.

- Research a news item that has at least two perspectives.
- Analyze the differences in which the data is portrayed.

#### 4. Analyze whether information from media sources has been manipulated. (Examples: bogus websites, bogus email, spam, graphs showing selected data...)

- Web Component → Critique the validity of information from websites and other media sources

#### 5. Analyze whether information collected from media sources is sufficient and/or suitable for purpose and audience. Sources include websites, CD-ROMs, and email.

- This is a component of every assignment and project that includes collecting information.

## ***Applying Information and Communication Technology 2***

The purpose of the course is to reinforce and extend the ICT knowledge, attitudes, and skills acquired by students in the Early and Middle Years. The course will further prepare students to use ICT to learn and demonstrate their learning in all Senior Years courses.

### Orientation to the Course and Activating Prior Knowledge

#### Orientation

- Review the school's ICT acceptable-use policy.
- List the software and hardware available at the school.
- Poll students to determine their access to ICT outside of school.
- Review procedures/rules/limitations for accessing school networks from home.
- Review management of electronic files.
- Review health issues, such as: — Ergonomics
- Review ethical and legal issues.

### Specific Learning Outcomes (Students will...)

#### Topics for Consideration

1. Design electronic plans including:
  - Outlines • Timelines • Storyboards
  - which could be part of students' projects, web pages, animations, and multimedia presentations.
2. Design and create non-sequential web pages and branching multimedia presentations.
  - Determine audience and purpose for a presentation.
  - Create a non-sequential presentation with:
    - An outline — Speaking notes — Text, images, imbedded objects, and links
    - Create graphics, Capture still images
  - Determine audience and purpose for a video.
  - Discuss ethics related to capturing images.
  - Create a video with: A timeline, Edited clips, Transitions, Sound
  - Determine the audience and purpose for a website.
  - Create a website with: — A navigation structure — Text — Images — Internal and external links
3. Simulate an abstract concept or real process using animation.
  - Determine audience and purpose for an animation.
  - Create an animation with: — A storyboard — Animated objects — Sound
4. Analyze whether information collected from media sources is sufficient and/or suitable for purpose and audience. Sources include websites, CD-ROMs, and email. This is a component of every assignment and project that includes collecting information.
5. Discuss information, ideas, and/or electronic work using tools for electronic communication. (Examples: email, electronic whiteboards, web pages, threaded discussions, videoconferences, chats, instant messages, camera phones, wikis, blogs, podcasts, online whiteboards...)
  - Use communication tools, such as: — Email — Chat — Threaded discussion — Instant messages — Video communications — Podcasts