

Public District School Board Writing Partnership

Business Studies

Course Profile Information Technology in Business

Grade 12
College Preparation
BTX4C

• *for teachers by teachers*

This sample course of study was prepared for teachers to use in meeting local classroom needs, as appropriate. This is not a mandated approach to the teaching of the course. It may be used in its entirety, in part, or adapted.

Course Profiles are professional development materials designed to help teachers implement the new Grade 12 secondary school curriculum. These materials were created by writing partnerships of school boards and subject associations. The development of these resources was funded by the Ontario Ministry of Education. This document reflects the views of the developers and not necessarily those of the Ministry. Permission is given to reproduce these materials for any purpose except profit. Teachers are also encouraged to amend, revise, edit, cut, paste, and otherwise adapt this material for educational purposes.

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Course Overview

Information Technology in Business, BTX4C, Grade 12, College Preparation

Policy Document: *The Ontario Curriculum, Grades 11 and 12, Business Studies, 2000.*

Prerequisite: Information Technology in Business, Grade 11, Open

Course Description

This course provides students with the opportunity to develop further the information technology knowledge and skills needed in the business world. Students will develop their understanding of electronic business environments, improve their skills in electronic research and in using business application software in the preparation of business documents, manage information, and apply project team management strategies.

Increasing reliance on computers, telecommunication networks, and information technologies in society and the workplace makes it essential for students to become computer literate and to develop information literacy. Information literacy is the ability to access, select, gather, critically evaluate, create, and communicate information and the ability to use the information to solve problems and make decisions. In preparation for further education, employment, citizenship, and lifelong learning, students must be able to derive meaning from information by using a variety of information literacy skills.

Course Notes

“Ontario secondary school graduates are expected to be technologically literate, which means they should be able to understand and apply technological concepts, to use computers in various applications, and to analyse the implications for a wide range of technologies for individuals and society.” *Ontario Secondary Schools, Grades 9 to 12, Program and Diploma Requirements, 1999, p. 59.*

This Course Profile is a support document that presents only one of many possible ways for teachers to organize their course so students can acquire and demonstrate the skills and knowledge specified in the curriculum policy documents through the learning expectations. Teachers use the information presented in this Course Profile to refine, revise, and develop activities that accommodate the various learning styles and learning preferences of individual students and that respond to local needs.

Information Technology in Business gives students the basic competencies necessary for further study at the college level in a Business or Information Technology program or entry-level skills for the workforce. The field of E-business represents the one of the fastest growing segments in the workplace. Many postsecondary institutions are developing programs to meet this need. The foci of the Course Profile are teamwork, E-business, and web-page design. Students are introduced to E-business and the competencies involved in this dynamic area.

Ministry of Education strands are closely matched in this Course Profile. Unit 1 focuses on the strand Electronic Business Environment. Unit 2 involves Electronic Project Management. The strand Software Applications and Business Documents is incorporated in Units 3, 4, and 5. Unit 3 is based on the Electronic Research and Communication strand combined with the Software Applications and Business Documents strand. Unit 4 introduces the Electronic Management strand. Unit 5 deals with the Postsecondary Education strand.

In Unit 1, students review the Information Technology business environment from the BTA3O course. The role of Information Technology in the workplace and the impact it has on the setting and organizational structures are covered. Current trends in Information Technology are discussed and summarized. The value and use of computer networks are examined. Students establish an Information Technology Portfolio.

In Unit 2, students are introduced to and practise team skills and project management. These skills are the key to success in Unit 4; students develop an E-business site as a group project. Organizational Studies: Organizational Behaviour and Human Resources (BOH4M) and Organizational Studies: Managing a Small Business (BOG4E) Public Course Profiles are rich sources for team skills and project-management skills activities that can be adapted to an IT focus.

In Unit 3, students draw on software knowledge and skills gained in other courses, such as BTT1O/2O and the prerequisite BTA3O. The case study approach allows the student to demonstrate skills in all the categories of the Achievement Chart. This rich performance task encompasses many software competencies and abstract-thinking skills.

Unit 4 is the production of the website from Unit 3. Using a team approach, students produce a progress report and a future growth plan for their E-business website. Students produce financial documents associated with the site, such as expense reports, bank reconciliation statements, price lists, and income statements.

In Unit 5, students have opportunities to consider career paths and plan for postsecondary opportunities. In addition, they update their Information Technology Portfolio.

Students work collaboratively throughout the course; therefore, addressing conflict management is important to student success. At the beginning of the course, the teacher addresses the issue, emphasizing that not all conflicts can be resolved, but people can choose how to handle them. New approach to conflict resolution might include: define the conflict; state the problem; check your perceptions; generate and evaluate a list of possible decisions/alternatives; reach a mutually acceptable decision; implement and evaluate the decision. If the decision is satisfactory, students continue their work; if the decision is unsatisfactory, students repeat the process. Different cultures perceive conflict differently: what constitutes conflict and how to resolve problems may vary. Self-, peer, group, and teacher assessments are a way to assess students on their ability to work as a team.

Safety is an important issue. From the outset, the teacher emphasizes online safety, ethics, legal requirements of working online, and usage agreements. (Visit www.tcdsb.org, Surf Right.) Local board policy on trips governs the activities. Topics of discussion should include the environment, trip safety, and interview safety. Emphasize part-time and summer jobs, as many students are either employed or looking for employment. An enthusiastic employee can be a safe, informed one. The teacher can consult safety resources, such as publications by The Ontario Ministry of Labour (see Resources).

The teacher refers to and makes use of the school's Guidance and Career Education Program Plan (*Choices Into Action*). This plan is available in Guidance/Student Services, in the principal's office, or from the school's Program Advisory Team. Students can utilize career-access software, such as *CareerCruising* and *Career Explorer* (see Resources) to explore job descriptions, working conditions, earnings, education, and career paths for jobs in information technology. Students should be aware of the dynamic nature of the cooperative learning experience and business career paths available to them.

The teacher should draw from their personal experience as an employee to complement and authenticate activities. The teacher can encourage students to relate personal experience in the workplace to the course content to better understand and apply course expectations. The teacher can identify and gain the participation of local businesses where possible. The teacher can develop an in-class display of community businesses and use existing partnerships established by their school board in conjunction with local industry; the teacher can access community business links that reflect the diversity of the local school community and use them as supplementary resources.

Units: Titles and Time

Unit 1	E-Business Environment	15 hours
** Unit 2	Teamwork	25 hours
* Unit 3	Project Planning and Research	25 hours
Unit 4	Building an E-Business	30 hours
Unit 5	Postsecondary Opportunities	15 hours

* This unit is fully developed in this Course Profile.

** This unit is fully developed in BTX4C Catholic Course Profile.

Unit Overviews

Unit 1: E-Business Environment

Time: 15 hours

Strand(s): The Electronic Business Environment

Unit Description

Students become familiar with workplace settings and organizational structures from an information technology perspective. They assess the impact of information technology on business operations and solve problems relating to network configurations. Students establish an Information Technology Portfolio. (See Unit 1 Appendix – Information Technology Portfolio.)

In **Cluster 1.1**, the teacher differentiates between workplace setting and organizational structure, through a teacher-directed discussion or handout. A variety of businesses is described by the teacher; students identify the different workplace settings involved with each business, determine hardware and software used with each workplace setting, and map out organizational structures for each business. Students then produce a report of their results, along with a conclusion of how information technology has changed workplace settings and organizational structures. (See BDI3C Public Course Profile at www.curriculum.org for a *Written Report Rubric*.)

In **Cluster 1.2**, there are a number of ways to get information technology terms and concepts across: textbooks, research on the Internet, didactic teaching, or electronic textbooks. A teacher-led discussion could be used to examine the impacts of information technology for individuals and businesses with social, political, and ethical implications. After the discussion, students create a report or electronic presentation on emerging technologies and forecasting trends in information technology related to business. (See Presentation Checklist and Presentation Rubric in Unit 3.)

In **Cluster 1.3**, textbooks (print and electronic), research on the Internet, didactic teaching, and utilizing current or older network equipment could be used as alternative methods of introducing the concepts. The teacher might have students set up a network of three to five machines, which would model a business network. A component checklist can be used as formative and summative assessment for each step in the building of the network. A simpler set-up could include two computers connected peer-to-peer using standard network protocols, such as *Netbui*[™]. This affords an opportunity to bring community expertise into the school.

Unit Overview Chart

Cluster	Learning Expectations	Assessment Categories	Focus/Time
1.1	EBV.01, EB1.01, EB1.02, EB1.03, EB1.04, EB1.05	Knowledge/Understanding Thinking/Inquiry Communication Application	Workplace Settings and Organizational Structures (5 hours)
1.2	EBV.02, EB2.01, EB2.02, EB2.03, EB2.04, EB2.05	Knowledge/Understanding Thinking/Inquiry Communication Application	Business Operations (5 hours)
1.3	EBV.03, EB3.01, EB3.02, EB3.03, EB3.04, EB3.05	Knowledge/Understanding Thinking/Inquiry Application	Network Configurations (5 hours)

Unit 2: Teamwork

Time: 25 hours

Strand(s): Project Management, Electronic Research and Communication, Software Applications and Business Documents

Unit Description

Students experience opportunities to manage a multitask team project in an electronic environment; demonstrate the use of electronic tools to manage a multimedia team project; create customized documents using appropriate software; and solve business problems using electronic tools. Team skills and project management are the foci in this unit and carry through to Units 3 and 4. The skills examined and developed are interdisciplinary and are assets to students regardless of the career/learning path they choose.

Teachers can adapt activities and team problems from BOH4M and BOG4E Public Course Profiles.

In **Cluster 2.1**, students in groups, investigate a problem supplied by the teacher requiring a team approach. (See Unit 3 for problem-solving models.) The teacher and students identify and describe the tools used by business to facilitate team activities. After solving the problem, the teacher leads a discussion and students take notes summarizing teamwork skills and the basics of project management. The concepts are through additional problem scenarios, such as effective vs. ineffective teams and effective conflict resolutions among employees by the management to enhance productivity.

In **Cluster 2.2**, the teacher reviews the school's Internet use agreement. The teacher should review copyright, bias, and validity of information; the information assessor in BTA30 Public Course Profile (Appendix 3.3.2.b) is one approach. Students in teams investigate a larger problem that requires Internet research. The teacher and students discuss, assess, and summarize electronic tools and technologies to facilitate team objectives and productivity. Students develop a plan to upgrade their classroom's computers. Before collecting and classifying the data, students make use of electronic tools to plan their project. There are various industry-standard collaborative tools that allow collaborative project planning; some e-mail clients have this functionality. In addition, there are Internet services that allow team members to communicate, share information, and evaluate team progress. A school's network interface may include this capability as well.

In **Cluster 2.3**, students use the data from Cluster 2.2 to create a report. In producing the business report, teams are required to track their progress and productivity using electronic tools.

Unit Overview Chart

Cluster	Learning Expectations	Assessment Categories	Focus/Time
2.1	PMV.01, PMV.02, PM1.01, PM1.02, PM1.03, PM2.01	Knowledge/Understanding Thinking/Inquiry	Electronic Project Planning and Research (5 hours)
2.2	PMV.01, PMV.02, ERV.01, PM1.04, PM2.02, PM2.03, ER1.01, ER1.02, ER1.03, ER1.04	Knowledge/Understanding Thinking/Inquiry Communication	The Team Approach to Problem Solving (10 hours)
2.3	PMV.02, SBV.01, PM2.04, SB1.01, SB1.02, SB1.03	Knowledge/Understanding Thinking/Inquiry Communication Application	Team Production of Electronic Business Documents (10 hours)

Unit 3: Project Planning and Research

Time: 25 hours

Strand(s): Electronic Research and Communication, Software Applications and Business Documents

Unit Description

Students assess data electronically to solve a specific business problem; communicate research results electronically; and integrate a variety of software applications in the preparation of multi-page business documents. Students achieve the expectations by moving through the various stages of a case study. Case studies provide the opportunity for a rich performance task. The case study involves a large retail clothing business that is looking to expand and refocus its existing web presence. The unit is divided into three sequential activities. Activities 3.1 and 3.2 are individual projects. Activity 3.3 is a group project.

Cluster 3.1 focuses on background research and data collection. The Internet is used to research retail clothing websites. Students prepare a PMI (Plus Minus Interesting) electronic chart that summarizes the information collected (see Appendix 3.1.2.2). Students use web and print sources for additional market research. A spreadsheet or database is prepared to analyse and organize the data.

Cluster 3.2 focuses on data-driven decision making. Students analyse and organize data from Cluster 3.1 as a basis for decisions and options. They compile the information in a comprehensive report. The report provides options for management to consider in refocusing their web presence, e.g., moving from an informational website to a website with online catalogue and ordering. The dimensions of the task involve a multi-page report, which is the e-business plan for the website. Software integration is an important element, e.g., spreadsheet, database, word processor, desktop publisher, web creation software.

In **Cluster 3.3**, students construct and electronically communicate the report developed in Cluster 3.2, using e-mail, presentation software, multimedia software, and/or web technologies.

Unit Overview Chart

Cluster	Learning Expectations	Assessment Categories	Focus/Time
3.1	ERV.02, ER2.01, ER2.02, ER2.03, ER2.04	Knowledge/Understanding Thinking/Inquiry Application	Background Research and Data Collection (5 hours)
3.2	ERV.03, SBV.02, SB2.01, SB2.02, SB2.03	Knowledge/Understanding Thinking/Inquiry Communication Application	Data-Driven Decision Making (15 hours)
3.3	ERV.03, ER3.01, ER3.02, ER3.03	Communication Application	Electronic Presentation (5 hours)

Unit 4: Building an E-Business

Time: 30 hours

Strand(s): Electronic Project Management, Software Applications and Business Documents

Unit Description

Students demonstrate the use of electronic tools to manage a multimedia team project; create a multimedia production for a virtual enterprise; integrate a variety of software applications in the preparation of multi-page business documents; and, use appropriate electronic financial planning tools for personal and workplace applications.

Students use a team approach and the project-management skills from Unit 2 in the creation of an e-business website from the plan developed in Unit 3. Students produce a progress report, a growth plan, and associated financial documents for the website.

In **Cluster 4.1**, the teacher conducts discussions on virtual enterprise followed by groups reviewing the e-business reports they developed in Unit 3. They identify the components of each of the group's individual business plans, which could be incorporated into an e-business website along with potential clients and business partners. Students create an e-business website and present the site to an external partner, such as a community representative.

In **Cluster 4.2**, students review their original e-business report from Unit 3. They create a progress report with a brief overview of the business, including accomplishments to date, problems encountered, revisions to the business plan, and a forecast of future problems. Students then create a five-year growth plan for their e-business.

In **Cluster 4.3**, students use the Internet to research financial planning tools associated with their e-business, such as currency exchange rates, mutual fund reports, and income statements. The results are analysed and incorporated into an electronic report. Students then create financial documents for their business. These documents could include expense reports, bank reconciliation statements, price lists, and income statements. (Business templates are found in integrated software packages.)

Unit Overview Chart

Cluster	Learning Expectations	Assessment Categories	Focus/Time
4.1	PMV.03, PM3.01, PM3.02, PM3.03, PM3.04	Knowledge/Understanding Thinking/Inquiry Communication Application	The Virtual Enterprise (20 hours)
4.2	SBV.02, SB2.01, SB2.02, SB2.03	Knowledge/Understanding Thinking/Inquiry Communication Application	Virtual Enterprise Progress Report (5 hours)
4.3	SBV.03, SB3.01, SB3.02	Thinking/Inquiry Communication Application	Financial Planning for the Virtual Enterprise (5 hours)

Unit 5: Postsecondary Opportunities

Time: 15 hours

Strand(s): Postsecondary Education, Software Applications and Business Documents

Unit Description

Students evaluate postsecondary programs in information technology; analyse employment opportunities in the sector; assess their skills and competencies; create electronically an education plan to take them from secondary school to employment; and use appropriate electronic planning tools for personal and workplace applications. Students consider career paths and plan for postsecondary opportunities.

In **Cluster 5.1**, students research careers in information technology that require postsecondary education. Students create websites to present their research. The website includes but is not limited to the following pages, with appropriate links within the site and to other sites:

- Information Technology careers that require postsecondary education;
- details of a specific information technology postsecondary program;
- Continuing Education programs in the area of information technology;
- current job postings for information technology careers;
- expanding and/or declining information technology careers.

Note: Student websites may be subject to Board and school policies that reflect the need for safety and the protection of student privacy. An option is to maintain these sites for viewing within the school only.

In **Cluster 5.2**, students focus on analysing their portfolios to make sure they are up-to-date. The components of this update are their information technology skills inventories, their resumes, and recent exemplary samples of work. If the school has access to a CD writer, students could copy their portfolio to CD. The teacher ensures that students understand the importance of maintaining copies of exemplary work; some college programs require exemplars as part of the application process.

In **Cluster 5.3**, students create an educational plan of three postsecondary IT programs. The teacher describes to students the components they should include, offering an opportunity for the school's guidance counsellor or college/university liaison officer to present information. When looking at specific programs, students examine the secondary-school courses, skills, and competencies required for admission. To complete their plans, students produce a budget using appropriate software.

Unit Overview Chart

Cluster	Learning Expectations	Assessment Categories	Focus/Time
5.1	PSV.01, PSV.02, PS1.01, PS1.02, PS1.03, PS2.01, PS2.02, PS2.03	Knowledge/Understanding Thinking/Inquiry Communication Application	Create a Careers Website (9 hours)
5.2	PSV.03, PS3.01, PS3.02, PS3.03, PS3.04	Communication Application	Portfolio Update (3 hours)
5.3	PSV.04, SBV.03, PS4.01, PS4.02, PS4.03, SB3.03	Thinking/Inquiry Application	Create an Educational Plan (3 hours)

Teaching/Learning Strategies

There is a conscious quest for a balance of traditional modelling of skills and knowledge, together with a blend of small-group and individual practice and individual exploration in this Course Profile.

The list provides a means for teachers to quickly reflect on strategies they have used in the past and strategies they can adopt. Pedagogy Resources and the *Ontario Curriculum Unit Planner* provide detailed explanations of the strategies.

Teacher-Directed	Learner-Centred	Self-Directed
<ul style="list-style-type: none"> • Didactic lesson • Socratic method • Visual organizers • Record/task sheet • Demonstration • Group project 	<ul style="list-style-type: none"> • Group project • Brainstorming: chunking, carousel, brainstorming, graffiti • Reaching Consensus: snowball • Listening and Communication: say-and-switch, three-step interview 	<ul style="list-style-type: none"> • Sharing • Displays • Research • Electronic media research • Computer-assisted learning • Text referencing

Teacher-Directed	Learner-Centred	Self-Directed
<ul style="list-style-type: none"> • Peer helping • Video • Overhead • Group discussion • Guest speakers • Field trip • Mnemonics (trigger recall) 	<ul style="list-style-type: none"> • Reaction/Opinion: reaction wheel, agree/disagree corners, roundtable, connections, round robin reflection, journal • Graphic Organizers: future wheel, semantic mapping mind mapping, flow chart, sequence chart, ranking ladder, tree diagram, Venn diagram, the fish bone, the right angle • Reflection: stems and starters, ticket to leave, role-playing 	<ul style="list-style-type: none"> • Note taking • Checklists • Questionnaires • Group projects • Help files

Assessment & Evaluation of Student Achievement

Teachers should employ assessment strategies frequently throughout the course to communicate the expectations of the course to students, to make appropriate adjustments to teaching and learning strategies as required, and to accommodate the special needs of students. Welcome and value students' input to the assessment process.

Marking schemes and rubrics used for evaluation should include Achievement Chart categories as applicable. The teacher can evaluate a single student-generated product or process under multiple categories: Knowledge and Skills, Thinking/Inquiry, Communication, and Application. The teacher's record keeping could require separate marks for each of the four categories it addresses.

In this Course Profile there are a number of group activities. Teachers must ensure that student performance is assessed and evaluated individually for the final grade in the course.

The following chart matches assessment tools with Achievement Chart categories.

Knowledge/Understanding	Thinking/Inquiry	Communication	Application
<ul style="list-style-type: none"> • Tests • Quizzes • Interviews • Electronic research 	<ul style="list-style-type: none"> • Interviews • Electronic research • Projects • Assignments 	<ul style="list-style-type: none"> • Portfolio • Reports • Presentations • Assignments • Business report • Case study 	<ul style="list-style-type: none"> • Electronic map for network arrangements • Multi-task team project • PMI chart • Website • Bank reconciliation • Expense report

Assessment Techniques

- Share the rubrics for culminating activities at the beginning of the unit, so expectations are clear for students. Use the rubrics to support the learning in all activities in the unit.
- Develop rubrics with students, or involve them in translating them into student language.
- Emphasize the language of assessment and evaluation in your discussions with students.
- Provide sample work demonstrating achievement at different levels for students.
- Provide different opportunities to assess the achievement of the expectations.
- Provide opportunities for self- and peer assessment as formative assessment.
- Provide multiple opportunities for students to demonstrate their achievement of expectations.
- Provide opportunities for students to retry assignments until they can demonstrate their learning.
- Develop tests that provide opportunities to demonstrate all categories on the Achievement Chart (not just Knowledge) at all levels.

- Give practice tests as an opportunity for formative assessment.
- Use assessment tools that are appropriate for the expectations and relate to the Achievement Chart.
- Provide prompt feedback so that students can use it to improve their learning.
- Design a variety of assessment tasks to address different learning styles.
- Provide choices in activities/assessment tasks to accommodate the diverse needs of learners.
- Provide opportunities for students to track their own progress.

Evaluation Strategies

Diagnostic	Formative	Summative
<ul style="list-style-type: none"> • Informal observation • Checklists • Quizzes 	<ul style="list-style-type: none"> • Informal and formal teacher observation • Teacher checklists • Student checklists • Interviews • Student/teacher conferencing • Written feedback • Graphic organizers • Presentations • Group reporting • Individual and group assignments • Rubrics 	<ul style="list-style-type: none"> • Assignments • Products • Quizzes • Tests • Rubrics • Projects • Oral presentations • Electronic presentations • Case studies • Research assignment • Webpage

Assessment Purposes

Assessment may be diagnostic, formative, or summative. Diagnostic assessment includes informal observation checklists, quizzes, and class question-and-answer periods. The following strategies and tools are for both formative and summative purposes.

Method	Strategy	Tool
Paper-and-pencil	Test - selected response - true/false - constructed response	Marking scheme
Performance task	Oral presentation Electronic presentations Planning a website Portfolio Education plan	Rubric Checklist
Personal communication	Student/teacher conference Classroom question and answer	Rating scale Anecdotal record

Final Course Evaluation

Seventy per cent of the grade will be based on assessments and evaluations conducted throughout the course. Thirty per cent of the grade will be based on a final evaluation in the form of an examination, performance, portfolio, and/or other method of evaluation.

The final evaluation could be a combination of a written exam with both practical and written portions and a culminating project. (This suggestion is not prescriptive; it provides a focus of assessment directly linked to students' experiential learning.)

Accommodations

Teachers should consult individual student IEPs for specific direction on accommodation for individuals. This allows teachers to effectively implement the prescribed adaptations. Teachers have a store of good practices they commonly use to enable the learning for all students in their class. The following are common, frequently used strategies listed by exceptionalities to reaffirm the good teaching practices found in Ontario classrooms.

Reading	Written Language
<ul style="list-style-type: none">• Read questions first.• Modify reading requirements.• Use reading partners.• Pre-teach concepts/vocabulary.• Highlight notes.• Use visuals.	<ul style="list-style-type: none">• Vary assignments.• Give explicit instructions.• Allow more time.• Provide photocopied notes.• Allow point-form notes and graphic organizers.• Use peer editing.• Teach spell/grammar check.

Enrichment Accommodations

The teacher can challenge the learner through product and process. The expectations cannot be changed or added to. The teacher can enrich the learning experience by:

- requiring multiple and sophisticated forms of communication;
- encouraging and reinforcing the application of abstract-thinking skills to complex content, resulting in a sophisticated product;
- fostering in-depth learning of a self-selected topic within the expectation requirements;
- encouraging and using the DECA™ and Ontario Business Educators Association (OBEA) contests;
- motivating students to synthesize course content with their own experiences and ideas.

ESL/ELD Accommodations

- English-speaking students can help ESL classmate by repeating, rephrasing, and writing words down.
- Encourage ESL students to use their own language for clarification and explanation.
- Provide students with a summary sheet to use at the end of each class (with teacher assistance) to list main terms or concepts that were the focus of the lesson.
- Make overheads of handouts on which the teacher highlights important terms, explains words, and clarifies instructions, etc., while students do the same on their copy.
- Provide a glossary of terms for the reading.
- Encourage the use of first-language dictionaries for assignments and assessments.
- Pair written instructions and verbal instructions.
- Familiarize ESL students with the process and vocabulary of rubrics.

Resources

Units in this Course Profile make reference to the use of specific texts, magazines, films, videos, and websites. Teachers need to consult their board policies regarding use of any copyrighted materials. Before reproducing materials for student use from printed publications, teachers need to ensure that their board has a Cancopy licence and that this licence covers the resources they wish to use. Before screening videos/films with their students, teachers need to ensure that their board/school has obtained the appropriate public performance videocassette licence from an authorized distributor, e.g., Audio Cine Films Inc. Teachers are reminded that much of the material on the Internet is protected by copyright. The copyright is usually owned by the person or organization that created the work. Reproduction of any work or substantial part of any work from the Internet is not allowed without the permission of the owner.

The URLs for the websites were verified by the writers prior to publication. Given the frequency with which these designations change, teachers should always verify the websites prior to assigning them for student use.

Pedagogy

Print

Bennett, B., Carol Rolheiser-Bennett, and Laurie Stevahn. *Cooperative Learning Where Heart Meets Mind*. Toronto: Educational Connections, 1991. ISBN 0-4444-555-6

Gibbs, Jeanne. *Tribes: A Process for Social Development and Cooperative Learning*. Santa Rosa, 1996. ISBN 0-932762-08-5

OSSTF/FEESO. *Quality Assessment: Fitting The Pieces Together*. Toronto: OSSTF Educational Services Committee, 1999. ISBN 0-920930-47-6

Internet

Innovation Teaching – www.interserf.net/mcken/teacher.htm

Interactive Curriculum – www.interactivecurriculum.com (activities and assessment tools)

Pedagonet – www.pedagonet.com

(an innovative search engine, which facilitates the exchange of learning resources)

Premier Tracks – <http://4teachers.org/premier>

(collection of K-12 web-based lessons for a variety of subject areas created by SCR*TEC's TrackStar)

School Net – www.schoolnet.org,

(This site is dedicated to serving the interests of students, parents, and educators regarding every facet of education.)

Teacher Talk – www.mightymedia.com/ttalk

(discussion area for teachers related to technology instruction)

Safety

Health and Safety Site – www.ccohs.ca (Canadian site for occupational health and safety)

Live Safe! Work Smart! Health And Safety Resources for Ontario Secondary School Teachers. Queen's Printer for Ontario, 2000. ISBN 0-7794-0226-X. Ministry of Labour Publications Department, phone 1-416-326-7731

Surf Right – www.tcdsb.on.ca/policyregister/AUP/default.htm (an acceptable use policy)

Toronto Catholic Board – www.tcdsb.on.ca/external/departments/business

(online resources and links to other sites)

Teacher Resources

Alphabet Superhighway – www.ash.udel.edu/ash

(This educational website, sponsored by the US Dept. of Education, assists teachers in creating, locating, and communicating information through online activities.)

Canada's School Net – www.schoolnet.ca (Established in 1993, Canada's School Net is designed to promote the effective use of information technology among Canadians by helping Canadian schools and public libraries connect to the Internet.)

Education And The Internet: Opportunities And Pitfalls,

– http://teachers.work.co.nz/internet_education.html

EduNet – www.edunetconnect.com (Explore some of the best educational content through EduNET's 10 Learning Categories. Check out the EDUNET Bookstore for recommended educational reading. Preview the Education Directory of Schools (Ontario) available on CD-ROM.)

Epals Classroom Exchange – www.epals.com (Connect with classrooms from 100 countries speaking over 100 languages. They also provide a filtered e-mail service.)

Learning Resource Server – <http://lrs.ed.uiuc.edu/> (links to some of the most exciting uses of technologies for learning on the Internet (College of Education, University of Illinois)

Media Awareness Network – www.media-awareness.ca/eng/webawareness/webindex.htm (challenges that are arising as children and young people go online)

Teacher Net – www.teachernet.com

Free E-mail

Hotmail – www.hotmail.com

Yahoo! Mail – mail.yahoo.com

Free Web-Page Posting

Angelfire – www.angelfire.com

Geocities – www.geocities.com/

Tripod – www.tripod.com

Online Resources

Ballaban, Friedl and Donna M. Thomson. *BTT 2001 On-Line*. Hamilton, ON: Norbry Publishing Limited, 2001.

Folville, JoAnne and Marianne Salvo. *BTA 2001 On-Line*. Hamilton, ON: Norbry Publishing Limited, 2001.

OESS-Licensed Software (Information available at www.osapac.org)

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Print

Acklin, Laura. *Internet Research: Projects & Applications, Business Part 1*. New York, NY: DDC Publishing, distributed by Monarch Books of Canada, 1999. ISBN 156243800X

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Hefferin, Linda and Suzanne Weixel. *Learning Microsoft Office 2000: Advanced Skills*. New York, NY: DDC Publishing Inc., distributed by Monarch Books of Canada, 2001. ISBN 1562437747

The Journey Inside. Intel newsletter. (free to educators; comes with chips, video, and print materials.)

Katsaropoulos, Chris, et al. *Learning the Internet for Business, 2nd ed*. New York, NY: DDC Publishing, distributed by Monarch Books of Canada, 1999. ISBN 1585770884

Kitto, Rick and Rob Scott. *Easy Web Pages With Netscape Communicator*. London, ON: KS Publications, 1999.

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Norton, Peter. *Peter Norton's Essential Concepts*. Toronto: Glencoe/McGraw-Hill, 1999.

Odgers, Pattie. *Internet Research: Projects & Applications, Technology*. New York, NY: DDC Publishing, distributed by Monarch Books of Canada, 1999. ISBN 1585770876

O'Hara, Shelley. *Learning Computer Concepts*. New York, NY: DDC Publishing Inc., distributed by Monarch Books of Canada, 2001. ISBN 1-58577-047-7

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Pasewark Ltd. *Microsoft Office XP*. Boston, MA: South-Western Publishing, distributed by Thomson Learning, 2001. ISBN 0-619-05844-7

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Shelly, Gary, et al. *Netscape Composer 6 Introductory Concepts and Techniques*. Boston, MA: Thomson Learning, 2001. ISBN 0-7895-4648-5

Shelly, Gary, et al. *Web Design Introductory Concepts and Techniques*. Boston, MA: Thomson Learning, 2001. ISBN 0-7895-5960-9

Stevenson, Nancy. *Internet Research: Projects & Applications, Internet Start-Up*. New York, NY: DDC Publishing, distributed by Monarch Books of Canada, 1999. ISBN 1585770892

Stevenson, Nancy. *Learning E-Commerce: Business Analysis & Design*. New York, NY: DDC Publishing Inc., 2001. ISBN 1585770574

Stubbs, et al. *Web Page Design*. Cambridge, MA: Thomson Learning, 2001. ISBN 0-5338-68997-8

Vodnick, Sasha. *Microsoft FrontPage 2000*. Cambridge, MA: Thomson Learning. ISBN 0-7600-6581-0

Zimmerman. *New Perspectives on Presentation Concepts*. Cambridge, MA: Thomson Learning. ISBN 0-619-01978-6

Unit 1: E-Business Environment

About The Human Internet – www.about.com (search engine with a section on computer terms)

Complete Intranet Resource – www.intrack.com/intranet (complete reference of intranet functions)

The Globe and Mail Technology Section – www.globetechnology.com (current information on technology and technology trends)

Human Resources Development Canada – www.hrdc-drhc.gc.ca

Intel corporation education site – www.intel.com/education (information on hardware, information on their education kit and a newsletter for educators)

Strategis – www.strategis.ic.gc.ca/engdoc/main.html (Industry Canada's Site on Technology Trends)

Techweb The IT Network – www.techweb.com (a source for computer terminology)

Terms and Definitions – www.encyclopedia.com

Terms and Definitions – www.techweb.com/encyclopedia

Organizational Structures – <http://choo.fis.utoronto.ca/FIS/Courses/LIS1230/LIS1230sharma/od2.htm>

Impact of Information Technologies

– <http://choo.fis.utoronto.ca/FIS/Courses/LIS1230/LIS1230sharma/od2.htm>

Whatis?.com – www.whatis.com (information on all kinds of computer topics)

Your Office – www.youroffice.ca/mag0007/0007workplace.html (workplace information)

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Brady, V., J. Ellerby, and L. Pinto. *Insights*. Toronto/Vancouver: Irwin Publishing, 2001.

ISBN 2-89310-876-8

Murphy, T., D. Notman, and J. Wilson. *The World of Business*. Scarborough: Thomson Learning, 2001.

ISBN 0-17-620140-8

O’Hara, S. *Learning Computer Concepts*. New York, NY: DDC Publishing, distributed by Monarch Books, 2001. ISBN 1-58577-047-7

Shepard, R. *Computer Concepts*. St. Paul, MN: Paradigm Publishing, 1998. ISBN 1-56118-931-6

Unit 2: Teamwork

Gibbs, Jeanne. *Tribes: A Process for Social Development and Cooperative Learning*. Santa Rosa, 1996.

ISBN 0-932762-08-5 (step-by-step processes for developing: social competence and globally accepted character attributes, problem solving skills, autonomy, and sense of purpose)

Unit 3: Project Planning and Research

Beginners’ Central – www.northernwebs.com/bc (This site is dedicated to helping people learn how to use information available on the Internet in a coherent manner.)

Canoe (Canadian Newsstand and Information) – www.canoe.com

Copernic.Com – www.copernic.com (Canadian company, provides one of the best meta-search tools)

Ecedweb – <http://ecedweb.unomaha.edu/teachsug.htm> (process for evaluating sites and content)

Evaluating Internet Resources – www.library.albany.edu/internet/evaluate.html

The Globe and Mail – www.theglobeandmail.com

Glossary of Internet Terms – www.matisse.net/files/glossary.html

Internet 101 – www2.famvid.com/i101/internet101.html (high quality guide to the Internet)

Introduction to Searching the Web – www.library.ubc.ca/home/websearch/#formore

Learn the Net – <http://learnthenet.com> (user-friendly information on all aspects of the Internet)

Megaspider – www.megaspider.com (all major search engines)

The Net: User Guidelines and Netiquette – www.fau.edu/netiquette/net

Netiquette: Life on the Internet – www.screen.com/start/guide/netiquette.html

Netiquette – www.albion.com/netiquette/index.html

Research-It – www.itools.com/research-it (easy-to-use site for looking up computer terms)

Searching the Internet: Recommended Sites and Search Techniques – www.albany.edu/library/internet/search.html

The Spider’s Apprentice – www.monash.com/spidap.html (tips for efficient web searches)

Techguide – www.techguide.com/home.shtml (how-to advice and strategic insight to guide IT and business professionals in technology project planning and decision-making.)

Toronto Star Technology – www.thestar.com/editorial/technology

Unit 4: Building an E-Business

Bizproweb – <http://bizproweb.com> (e-business resources for small businesses)

Canada Business Services Centres – www.cbcs.org/osbw/busplan.html

Desktoppublishing.Com – www.desktoppublishing.com (free images and web-page templates)

Globeinvestor – <http://globeinvestor.com> (financial planning information)

Growth Strategies – www.dfait-maeci.gc.ca/english/geo/europe/canfran/canfran-e.htm

Html Tutorials – www.bfree.on.ca/HTML (This website, created John C. Gilson, a Mathematics Department Head at Pauline Johnson Collegiate in Brantford, teaches people to design their own websites.)

Ims Internet Marketing Services – www.erehwon.com (using the Internet to improve business)

In and Out of the Classroom With Microsoft Publisher – www.microsoft.com/education/curric/pub98/website.htm (creating sites with *Publisher 98*)

Intel E-Business Site – www.intel.com/eBusiness/home.htm (information on current e-business technologies and trends)

Learning and Using Netscape Composer – www.bama.ua.edu/%7eray011/composer.htm

Learnlots.Com – www.learnlots.com (computer terms, tutorials, and e-business resources)

Marketing – www.marketing.com (marketing information, tips, and e-business information)

Microsoft E-Business Solutions – www.microsoft.com/canada/business/default.asp

Msdn Online Web Workshop – <http://msdn.microsoft.com/workshop> (This site provides online workshops for web-page developers using the *Internet Explorer* browser.)

Netscape Developer – <http://developer.netscape.com/docs/manuals/> (documentation for developers)

The Ontario Securities Commission – www.osc.gov.on.ca (information on securities regulation)

Peter Fujiwara’s site (HTML tutorial using *Filemaker* as web server) – www.fujiwara.ca

Stocks.Com – www.stocks.com (financial resource guide)

The TSE Website – www.tse.com (investment and financial information)

Toronto Catholic District School Board – www.tcdsb.on.ca/external/departments/business/info-p6.html (This link highlights how E-business contrasts to traditional IT systems.)

Web Developer’s Site – www.wdvl.com (images, graphics, and design tips)

Website Development – www.fg-a.com (images, web-page design, and programming)

Zdnet E-Commerce – www.zdnet.com/enterprise/e-business (This site provides a summary of e-business topics, including what is hot in employment in e-business.)

Print

Katsaropoulos, C., K. Berkemeyer, D. Mayo, and C. Vesecky. *Learning the Internet for Business*. New York, NY: DDC Publishing, distributed by Monarch Books, 2001. ISBN 156243587-6

Katsaropoulos, C. and C. Skintik. *Learning to Create a Web Page with Microsoft Office 2000*. New York, NY: DDC Publishing, distributed by Monarch Books, 2001. ISBN 1-56243746-1

Stevenson, N. *Learning E-Commerce, Business Analysis & Design*. New York, NY: DDC Publishing, distributed by Monarch Books, 2001. ISBN 1-58577-057-4

Unit 5: Postsecondary Opportunities

Canjobs.com – www.canjobs.com (Canadian employment search network)

Career Cruising – www.careercruising.com

Careerclick.Com – www.careerclick.com (career resources, job postings, and company profiles)

Cx Bridges Canada – <http://cdn.cx.bridges.com> (general career information)

Human Resources Development Canada, job futures 2000 – www11.hrdc-drhc.gc.ca/doc/jf/part2/index.shtml (labour market trends and information on careers)

Ontario College Application Service – www.ocas.on.ca (links to all colleges in Ontario)

OSSTF/FEESO. *Quality Assessment: Fitting The Pieces Together*. Toronto: OSSTF Educational Services Committee, 1999. ISBN 0-920930-47-6 (See pp. 150-156 for portfolio management.)

The University Application Service – www.ouac.on.ca (links to all universities)

Workopolis – www.workopolis.com (technology career information and job postings)

Videos

Teacher's Video Company (www.teachersvideo.com)

Copyrights. 25 min.

Criminals in Cyberspace. 50 min.

How Computers Work. 26 min.

Keeping Teams Together. 25 min.

KGB the Computer and Me. 60 min.

Technology Unplugged. 17 min.

The Future of the Internet. 60 min.

OSS Considerations

The Ontario Curriculum, Grades 11 and 12, Business Studies, 2000.

The Ontario Curriculum, Grades 9 to 12, Choice Into Action: Guidance and Career Education Program Policy For Ontario Elementary and Secondary Schools, 1999.

The Ontario Curriculum, Grades 9 to 12, Program Planning and Assessment, 2000.

Ontario Secondary Schools, Grades 9 to 12, Program and Diploma Requirements, 1999.

This course may count as an optional credit or an additional compulsory credit for diploma purposes.

Unit 1 Appendix

Information Technology Portfolio

The Working Portfolio

The working portfolio is not just a collection of the student's work. The portfolio has a clear purpose: to hold student work for subsequent units, the Culminating Project, and future career opportunities. Students need teacher direction on which pieces of work will be used in future units. The Unit Descriptions outline the links or connections. The teacher and students establish the form the portfolio will take and select the contents for the portfolio (rough drafts, best work, work that needs revisions, school material, or material from outside the school). At the end of each unit, the teacher/students determine the work to be placed in the portfolio.

Other options are a working portfolio that progresses to either a showcase portfolio to display the best work or an assessment portfolio used to document achievement of learning expectations.

Portfolio Inspection/Assessment Tool starts with the highest category first. The hope is that the student will aspire to the first set of criteria. This tool is both a formative and summative inspection tool.

Portfolio Checklist

(The checklist becomes a formative assessment tool for the student).

Superior Portfolio Performance	
	Extensions of assigned activities are done.
	Applications of information technology concepts are enhanced wherever possible.
	Portfolio is stored in more than one medium.
Proficient Portfolio Performance	
	Extensions of assigned activities are done with assistance.
	All errors are corrected.
	Applications of information technology concepts are occasionally enhanced.
Adequate Portfolio Performance	
	Assigned activities are completed.
	Initial errors have been corrected.
	Applications of information technology concepts are evident.
Limited Portfolio Performance	
	Assigned activities are not completed.
	Initial errors, which have been pointed out, are not corrected.
	Gaps exist in the applications of concepts.

Portfolio inspection/assessment should be an ongoing process. The assessment tools should be kept in an archive that reflects student progress.

Unit 1 Appendix (Continued)

Portfolio Inspection/Assessment Tool (A Formative Tool)

Portfolio Organization	
	The portfolio is clearly organized and exciting to look through.
	The portfolio is organized and easy to look through.
	The portfolio is complete and organized.
	The portfolio is unorganized, messy, or hard to look through.
Mastery of Concepts	
	The work demonstrates creative and insightful mastery of information technology concepts and tools.
	The work demonstrates perceptive use and comprehensive mastery of information technology concepts and tools.
	The work demonstrates appropriate use of information technology concepts and tools.
	The work demonstrates limited mastery of information technology concepts and tools.
Storage	
	Unique techniques are used to store the portfolio.
	Storage method is clean and attractive.
	Basic requirements are met for the storage method.
	Storage method problems are not solved.
Error Correction	
	Elegant and precise correction of all errors.
	All errors are corrected.
	Most of the errors are corrected.
	Errors are not corrected.
Self-Reflection	
	Self-evaluation reflects a desire to excel in the subject.
	Self-evaluation reflects a desire to succeed in the subject.
	Self-evaluation reflects a desire to succeed some of the time.
	Self-evaluation does not reflect a desire to improve in the subject.

Comments

Assessed by:

Date:

Coded Expectations, Information Technology in Business, Grade 12, College Preparation, BTX4C

The Electronic Business Environment

Overall Expectations

- EBV.01** · identify and describe a variety of workplace settings and organizational structures from an information technology perspective;
- EBV.02** · assess the impact of information technology on business operations such as the growth of e-business, virtual enterprise, data warehousing;
- EBV.03** · solve problems relating to various network configurations.

Specific Expectations

Workplace Settings and Organizational Structures

- EB1.01** – differentiate between the terms “workplace setting” and “organizational structure”;
- EB1.02** – compare a variety of workplace settings (e.g., home office, large corporation, cooperative);
- EB1.03** – compare a variety of organizational structures (e.g., hierarchical and horizontal, decentralized and centralized, department-based and project-based);
- EB1.04** – describe the software and hardware used in a variety of workplace settings (e.g., health care facility, bank, travel agency);
- EB1.05** – analyse the ways in which workplace settings and organizational structures have changed as a result of information technology.

Business Operations

- EB2.01** – explain how specific business operations (e.g., human resources, marketing, production, sales) can be affected, positively and negatively, by information technology;
- EB2.02** – explain business operations terminology related to information technology (e.g., e-business, virtual enterprise, data warehouse);
- EB2.03** – identify and describe emerging technologies and systems that are used to manage and disseminate information;
- EB2.04** – forecast trends in conducting business electronically;
- EB2.05** – present arguments on the social, political, economic, and ethical implications of the use of information technology for individuals and businesses.

Network Configurations

- EB3.01** – explain terminology related to computer networks (e.g., configuration, topology, network);
- EB3.02** – describe a variety of network topologies (e.g., star, ring, bus, tree);
- EB3.03** – analyse appropriate equipment arrangements and layouts for specific business situations;
- EB3.04** – create a plan to map appropriate equipment arrangements using electronic tools (e.g., flowchart software, drawing software, design software);
- EB3.05** – solve problems related to the use of information technology tools in order to enhance productivity and accessibility in all business functions.

Software Applications and Business Documents

Overall Expectations

- SBV.01** · create integrated customized documents using appropriate software;
- SBV.02** · integrate a variety of software applications in the preparation of multipage business documents;
- SBV.03** · use appropriate electronic financial planning tools for personal and workplace applications.

Specific Expectations

Business Document Creation

- SB1.01** – determine how to produce suitable business documents for particular purposes (e.g., a multimedia document requiring text, flowcharts, images, sound, and tables);
- SB1.02** – determine the most appropriate software application for creating customized business documents;
- SB1.03** – create customized business documents (e.g., formatted and integrated documents, original graphics, multimedia documents).

Business Report Preparation

- SB2.01** – select the appropriate integrated software for the preparation of a multipage report;
- SB2.02** – demonstrate the appropriate use of the software features and functions required for multipage business reports (e.g., headers, footers, footnotes, endnotes, headings, page numbers, cover pages, tables of contents, bibliographies, indexes);
- SB2.03** – create, electronically, a multipage report that includes a chart, a table, a graph, clip art, and enhanced font styles and designs.

Financial Planning

- SB3.01** – summarize, electronically, the financial planning tools (e.g., currency exchange rate information, mutual fund reports, income statements) available on a global network (e.g., the Internet);
- SB3.02** – create financial documents (e.g., a bank reconciliation statement, an expense report, a price list, an income statement) using software templates;
- SB3.03** – demonstrate the appropriate use of software in preparing a three-year personal financial plan.

Electronic Research and Communication

Overall Expectations

- ERV.01** · solve business problems by using electronic tools;
- ERV.02** · assess data electronically to solve a specific business problem;
- ERV.03** · communicate research results electronically.

Specific Expectations

Electronic Research

- ER1.01** – use electronic tools to collect information required to solve a specific business problem (e.g., investment decisions, mortgage rate choices, real estate purchases);
- ER1.02** – assess collected information in terms of its validity, bias, copyright protection, appropriateness, accuracy, and confidentiality;
- ER1.03** – demonstrate an understanding of copyright and licensing rules and regulations;
- ER1.04** – demonstrate an understanding of the importance of classifying research results based upon relevance to the specific problem.

Electronic Data Analysis

- ER2.01** – identify appropriate software used in the business community to analyse primary data;
- ER2.02** – select an appropriate software tool to analyse the primary data;
- ER2.03** – analyse, electronically, the primary data collected;
- ER2.04** – summarize, electronically, the primary data collected and the results of the analysis.

Electronic Communication

- ER3.01** – determine the appropriate type of document needed to communicate specific information (e.g., presentation, abstract, summary);
- ER3.02** – select appropriate electronic tools (e.g., multimedia, e-mail, web-based communication) to communicate information to a specific audience;
- ER3.03** – communicate their research results electronically.

Electronic Project Management and Teamwork

Overall Expectations

- PMV.01** · manage a multitask team project in an electronic environment;
- PMV.02** · demonstrate the use of electronic tools to manage a multimedia team project;
- PMV.03** · create a multimedia production for a virtual enterprise.

Specific Expectations

Project Team Management

- PM1.01** – explain the concept of a project team as it applies to business;
- PM1.02** – compare effective and ineffective teams and explain how they differ;
- PM1.03** – describe how businesses resolve employee conflict to enhance productivity;
- PM1.04** – demonstrate the appropriate use of an electronic tool for evaluating team process and productivity.

Electronic Project Team Tools

- PM2.01** – identify and describe the electronic tools used by business to facilitate project team activities (e.g., e-mail, intranet, newsgroups, software features that enhance joint productivity, fax, video conference);
- PM2.02** – summarize the appropriate use of electronic tools used by business to manage a multimedia team project;
- PM2.03** – assess technologies to identify those that will facilitate the attainment of team objectives and productivity;
- PM2.04** – demonstrate the use of appropriate electronic tools to enhance team productivity.

Virtual Enterprise Creation

- PM3.01** – identify and describe the components of a virtual enterprise;
- PM3.02** – identify possible external partners that use information technology for virtual enterprise purposes;
- PM3.03** – create a multimedia product by using appropriate software;
- PM3.04** – communicate the finished product to an external partner.

Postsecondary Education

Overall Expectations

- PSV.01** · evaluate postsecondary education programs in information technology;
- PSV.02** · analyse employment opportunities in the information technology sector;
- PSV.03** · assess their information technology skills and competencies;
- PSV.04** · create, electronically, an education plan to take them from secondary school to employment.

Specific Expectations

Evaluation of Postsecondary Programs

PS1.01 – summarize career areas that require postsecondary education in information technology;

PS1.02 – describe the components of postsecondary information technology programs;

PS1.03 – analyse continuing education programs related to employment in the information technology sector.

Analysis of Employment Opportunities

PS2.01 – summarize employment opportunities in the information technology sector that require the successful completion of related postsecondary programs;

PS2.02 – describe specific postsecondary programs that will prepare them for employment in the information technology sector;

PS2.03 – forecast, electronically, emerging employment opportunities for information technology graduates.

Assessment of Skills and Competencies

PS3.01 – analyse their development of information technology skills (e.g., animation skills, graphics skills);

PS3.02 – summarize, electronically, their information technology skills (e.g., skills in electronic research and analysis, multimedia presentation, electronic project team management);

PS3.03 – demonstrate their information technology skills in samples of their work;

PS3.04 – demonstrate an understanding of the importance of keeping records and samples of exemplary work (e.g., electronic financial documents, multimedia programs) in a portfolio that may be required for admission to college programs.

Creation of an Education Plan

PS4.01 – describe the components of an education plan;

PS4.02 – create, electronically, an education plan to gain entry into two or more postsecondary programs related to information technology;

PS4.03 – assess the importance of continuing education in the information technology sector.

Unit 3: Project Planning and Research

Time: 25 hours

Unit Description

Students assess data electronically to solve a specific business problem; communicate research results electronically; and integrate a variety of software applications in the preparation of multi-page business documents. Students achieve the expectations by moving through the various stages of a case study. Case studies provide the opportunity for a rich performance task. The case study involves a large retail clothing business that is looking to expand and refocus its existing web presence. The unit is divided into three sequential activities. Activities 3.1 and 3.2 are individual projects. Activity 3.3 is a group project.

Unit Synopsis Chart

Activity	Time	Learning Expectations	Assessment Categories	Tasks/Focus
3.1 Background Research and Data Collection	5 hours	ERV.02, ER2.01, ER2.02, ER2.03, ER2.04	Knowledge/ Understanding Thinking/Inquiry Communication Application	1. Case Study Introduction 2. Electronic Research 3. Information Dissemination
3.2 Data-Driven Decision Making	15 hours	ERV.03, SBV.02, SB2.01, SB2.02, SB2.03	Knowledge/ Understanding Thinking/Inquiry Communication Application	1. Software Programs and Features Review – Integrated Software 2. Report Creation 3. Communicating the Executive Summary
3.3 Electronic Presentation	5 hours	ERV.03, ER3.01, ER3.02, ER3.03	Knowledge/ Understanding Thinking/Inquiry Communication Application	1. Electronic Presentation of Project Highlights 2. Presenting the Plan

Student Assessment/Evaluation Summary

The appendix number references the assessment/evaluation tool provided.

Activity	Product	Self-Assessment	Peer/Group Assessment	Teacher Evaluation
3.1	Inquiry process Website content PMI chart Customer survey	Formative Ongoing self-/group assessment, Appendix 3.1.1.2. Product Assessment Practice Students assess website content, Appendix 3.1.2.1 Formative, Appendix 3.1.3.1	Formative Appendix 3.1.2.2 Summative, Appendix 3.1.3.1	
3.2	Activity log Business report	Formative, Appendix 3.2.2.1	Formative, Appendix 3.2.3.1	Summative, Appendix 3.2.3.1

Activity	Product	Self-Assessment	Peer/Group Assessment	Teacher Evaluation
3.3	Electronic presentation	Formative Presentation Checklist, Appendix 3.3.1.1 Presentation Group Work Assessment, Appendix 3.3.1.2	Formative Oral Presentation Checklist, Appendix 3.3.2.1 Presentation Group Work Assessment, Appendix 3.3.1.2	Summative Oral Presentation Checklist, Appendix 3.3.2.1 Electronic Presentation Rubric, Appendix 3.3.2.2

Activity 3.1: Background Research and Data Collection

Time: 5 hours

Description

Students focus on background research and data collection. The Internet is used to research clothing retail websites. Students prepare a PMI (Plus Minus Interesting) electronic chart that summarizes the information collected. Additional market research is done from web and print sources. A spreadsheet or database is prepared to analyse and organize the data.

Strand(s) & Learning Expectations

Strand(s): Electronic Research and Communication

Overall Expectations

ERV.02 - assess data electronically to solve a specific business problem.

Specific Expectations

ER2.01 - identify appropriate software used in the business community to analyse primary data;

ER2.02 - select an appropriate software tool to analyse the primary data;

ER2.03 - analyse, electronically, the primary data collected;

ER2.04 - summarize, electronically, the primary data collected and the results of the analysis.

Prior Knowledge & Skills

- Students should be familiar with Internet searching techniques from BTA30.
- Students are familiar with word-processing, spreadsheet, and database programs.

Planning Notes

- Computers with Internet capability should be booked for 120 minutes.
- A list of related clothing websites should be prepared. Course Profiles for BMI3C Public and BMX3E Public (www.curriculum.org) provide extensive lists in Resources.
- The teacher copies the appendices for distribution.
- The teacher may make use of the information assessor, Appendix 3.3.2.B from BTA30 Public (www.curriculum.org).

Teaching/Learning Strategies

3.1.1 Case Study Introduction (60 minutes)

- The teacher introduces Appendix 3.1.1.1 – Canadian Clothiers Case Study.
- The teacher leads a discussion on e-business, products, security, ethical issues, and related clothing businesses.
- The teacher introduces the Appendix 3.1.1.2 – Problem-Solving Model and Appendix 3.1.1.3 – Problem-Solving Assessment Checklist. The teacher demonstrates how the problem-solving model is an effective vehicle for case study development and how the checklist may be used as a foundation to assess the process

3.1.2 Electronic Research (120 minutes)

- Students research the World Wide Web, electronic media, and print resources for related clothing retail business. Students use Appendix 3.1.2.1 – Website Content Checklist to assess website content.
- Students collect primary data to analyse and use the results of the analysis to assist them in deciding the features and function required in the interactive site.
- Students record information to be used in the creation of the Canadian Clothiers website, including products, pricing, sample ordering forms, and characteristics of layout.
- Students create a PMI chart that summarizes the information collected from websites. See Appendix 3.1.2.2– PMI Chart.

3.1.3 Information Dissemination (120 minutes)

- From the research completed in 3.1.2, students create a database of products, price lists, and customer information to use for the Canadian Clothiers website.
- Students create a customer survey of online shopping practices. Students use Appendix 3.1.3.1 – Sample Customer Survey for formative self-assessment before submitting the survey for teacher evaluation. The teacher/students schedule time for revisions after the formative assessment takes place.
- Groups distribute a minimum of six copies of the customer survey to class members, other classes, or the community.
- Students select appropriate software, such as a database or spreadsheet, and enter the survey information.
- Students analyse the collected data and create lists of potential groups/clients to market their products.

Assessment & Evaluation of Student Achievement

Knowledge/Understanding, Thinking/Inquiry, Communication, Application

Formative

- Formative student assessment practice, Appendix 3.1.2.1 – Website Content Checklist.
- Teacher assessment of Appendix 3.1.2.2 – PMI Chart. The teacher provides feedback on the group discussion process while the group uses the PMI chart.

Summative

- Teacher assessment of 3.1.3 using the Sample Customer Survey as a template (See Appendix 3.1.3.1)
- The overall summative assessment/evaluation of these sub-activities will occur for the final products in Activities 3.2 and 3.3. Teachers must ensure that individual performance is assessed for components of a final evaluation.

Accommodations

- In a senior-level course, the teacher can expect the student to exhibit organizational skills and effective learning habits. Most of the assistance given by the teacher should be directed at a special request by the student.
- Extensive suggestions for accommodations can be found in the *Ontario Curriculum Unit Planner*.

Enrichment

- The teacher should encourage students to investigate and master application programs not previously to perform outlined tasks. Using new software increases the complexity of the task.

Appendix 3.1.1.1

Canadian Clothiers Case Study

Canadian Clothiers is a large clothing retailer selling a variety of casual apparel. Their product line includes pants, shirts, coats, jackets, sweaters, and accessories. They are a highly successful chain of stores located in Power Centres and traditional malls. Their website is informational; it lists product information, special sales, company information, and locations. It is not interactive and, except for an e-mail link to the web master, customers cannot do anything except go from page to page and click on the few links that exist on the site.

The president and CEO, Jonathon Canuck, wants to increase shareholder value by turning the site into an e-tail* site. In recent years, an online website has become a competitive necessity, as more consumers are demanding it. Online clothing sales are one of the highest growing product areas; almost 30% of total online purchases are clothing industry sales, according to research.

There are challenges though, such as security of the site and ethical issues. In addition, despite their research showing the increasing trend of on-line clothing sales, certain demographic groups are reluctant to purchase clothing on the Internet.

Mr. Canuck firmly believes that there are many benefits to upgrading the website to an interactive site. Benefits could include sales increases, a customer database created from the customer order information, and the ability to track customer tastes and buying trends.

Mr. Canuck asked your development company to present a website design proposal for an e-tail site to the board of Canadian Clothiers. Your proposal should be in the form of a business report and address the issues presented. You should also include a sample of one or two of the pages that will be in the site and information on the development cost.

*A website that customers can use to order merchandise online

Appendix 3.1.1.2

Problem-Solving Model

Initial Experience (Question)	<ul style="list-style-type: none">• The case study, an exploratory activity, is introduced.• The student/group identifies a difficulty, issue, or deficiency.
The Inquiry Question (Dependent Variable)	<ul style="list-style-type: none">• The student/group poses a suitable question around which the study will develop.• The formulated question clarifies the difficulty or issue.• The question focuses on strategies for problem solving.• The general question is in the form: What factors might affect the dependent variable?
Alternatives (Independent Variables)	<ul style="list-style-type: none">• The student/group suggests possible answers to the general question.• The student/group suggests a range of reasonable strategies for solving the problem.• Some answers are uncovered in the process of gathering information.
Data (Information)	<ul style="list-style-type: none">• The student/group collects information on each alternative.• The student/group obtains data about strategies and rules that help solve the problem.• The student/group organizes the data to represent relationships.• The student/group utilizes information and selects the criteria (standards) for evaluating the alternatives.
Synthesis (Conclusion)	<ul style="list-style-type: none">• The student/group arrives at a conclusion by describing, on the basis of the accumulated information, the alternative that offers the best solution.• The student/group solves the problem.
Assessing the Conclusion	<ul style="list-style-type: none">• The student/group ascertains whether the conclusion adequately answers the original question.• The student/group assesses the appropriateness of the conclusion and its expression in light of the original question.• The student/group evaluates the suitability of the conclusion and the success of the action.• The student/group ascertains whether the conclusion leads to the solution of the problem.• The student/group judges whether the decisions and conclusions will continue to be acceptable in the future.
Expressing the Conclusion (Generalization)	<ul style="list-style-type: none">• The student/group organizes a clear expression and presentation of the conclusion.• Enrichment: The student/group answers the initial question and extends the conclusion by applying it to a broader class of events.
Implementing the Decision	<ul style="list-style-type: none">• The student/group takes action to implement the decision.
Prediction (Enrichment)	<ul style="list-style-type: none">• The student/group makes a statement about expectations regarding manipulation of the factors in any of the events to which the generalization applies.

Appendix 3.1.1.3

Problem-Solving Assessment Checklist

(May be used for peer or self assessment generally formative and will not contribute to final mark)

The Inquiry Question	
	Brings exceptional clarity and insight into the issue, topic, or problem.
	Clear focus and accurate wording of the problem or issue.
	Identifies the problem but has trouble clarifying or describing.
	Fuzzy, confused, or inaccurate definition of the problem.
Alternatives	
	Generates alternatives that demonstrate unusual possible answers or an exceptional range of strategies.
	Generates several alternatives or strategies.
	Identifies one or two possible choices.
	Little evidence of possible strategies for the inquiry question.
Data	
	Collection of information from a variety of sources, demonstrating both breadth and depth of interpretation of the issue.
	Complete collection with enough information to evaluate the alternatives.
	Some data collection on the identified areas of investigation
	Inadequate or unfocused collection of information with disorganized notes or no notes at all.
Synthesis	
	Exceptional or unusual solution to the problem or description of the best answer to the question.
	Solution to the problem or answer to the question is clearly organized based on the data collected.
	Solution is appropriate and useful.
	No clear structure or organizational pattern.
Assessment	
	High-level criteria applied to the evaluation of the conclusion; the group clearly judges whether the decisions or conclusions will continue to be acceptable in the future.
	Evaluation includes the suitability of the conclusion and whether the conclusion leads to the solution of the problem.
	Evaluation of the conclusion is based on the data and the original question.
	No evaluation of the information.
Expressing the Conclusion	
	Unusually clear presentation of the conclusion with predictions.
	Clear organization and presentation of the conclusion.
	The solution to the problem is not always clear.
	Inadequate or misleading conclusions.

Overall Comments

Assessed by:

Appendix 3.1.2.1

Website Content Checklist – a worksheet for student use

Site Name/URL:

Table of Contents/Menu/Site Map/Site Search	
	Company Information
	About this company
	Management/key personnel
	Company background/history
	Contact information/directions/travel information
	Job postings
	Awards/professional affiliations
	Other:
Marketing and Sales Information	
	Product description (text, pictures, videos)
	Samples or examples
	Online catalogue
	Forms – general feedback, user surveys, order forms
	FAQs (Frequently Asked Questions) with answers
	List of distributors
	Other:
Customer Service Information	
	Usage tips/help
	Support telephone numbers
	Product updates
	Other:
Other Information	
	Links to related sites
	Resources (books, videos, contacts)
	Other:

Appendix 3.1.2.2

PMI (Plus, Minus, Interesting) Chart

Enter responses under each column. Responses can be used as a form of ongoing assessment for website content in the clothing e-business.

Website and URL	Plus	Minus	Interesting

A PMI chart is a simple and effective decision-making tool. However, to be effective, its rules must be strictly adhered to.

- Clearly, decide on the decision you are trying to make. Remove any vagueness and uncertainty about what you need to know.
- For a period of time, concentrate on nothing but the Positive reasons for making the decision. Do not deviate from this task.
- For a period of time, concentrate on nothing but the Minus reasons for making the decision. Do not deviate from this task.
- For a period of time, concentrate on nothing but the Interesting issues (neither negative nor positive, need more exploration) raised by making the decision. Do not deviate from this task.

Appendix 3.1.3.1

Sample Customer Survey

Canadian Clothiers

“Canadian Clothiers offers clothing for the discerning for less.”

Please complete this quick survey to receive \$10.00 off your next online order.

Generally I Shop Online For Clothes:

<input type="checkbox"/>	Very often	<input type="checkbox"/>	Often	<input type="checkbox"/>	Sometimes	<input type="checkbox"/>	Rarely	<input type="checkbox"/>	Never
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If I Shop Online, I Usually Buy (Check All That Apply):

<input type="checkbox"/>	Shirts	<input type="checkbox"/>	Suits	<input type="checkbox"/>	Lingerie	<input type="checkbox"/>	Accessories
<input type="checkbox"/>	Pants	<input type="checkbox"/>	Dresses	<input type="checkbox"/>	Outerwear	<input type="checkbox"/>	Footwear

When I Shop Online, I Usually Spend:

<input type="checkbox"/>	Less than \$25	<input type="checkbox"/>	\$25 - \$75	<input type="checkbox"/>	\$75 - \$150	<input type="checkbox"/>	Greater than \$150
--------------------------	----------------	--------------------------	-------------	--------------------------	--------------	--------------------------	--------------------

Name:

Address:

Phone:

E-mail:

Age Range:

Sex: Male / Female

Thank you for your time. You will receive a validation code for your \$10.00 discount for online purchases by e-mail.

Sincerely,

Mr. Canuck, Owner

Canadian Clothiers

P.S. Your privacy is our priority. To see our online Privacy and Security Statement, please use this link: www.canadianclothiers.com/link/WEBSITE/goto.jsp?

Activity 3.2: Data-Driven Decision Making

Time: 15 hours

Description

This activity focuses on data-driven decision making. Students use the analysed/organized data from Activity 3.1 as a basis for the decisions that are to be made. The information is compiled in a comprehensive report. The report provides options for management to consider in refocusing their web presence, e.g., moving from an informational website to a website with online catalogue and ordering. The dimensions of the task involve a written report and a plan for a sample website. Software integration is an important element, e.g., spreadsheet, database, word processor, desktop publisher, web-creation software.

Strand(s) & Learning Expectations

Strand(s): Electronic Research and Communication

Overall Expectations

ERV.03 - communicate research results electronically;

SBV.02 - integrate a variety of software applications in the preparation of multipage business documents.

Specific Expectations

SB2.01 - select the appropriate integrated software for the preparation of a multipage report;

SB2.02 - demonstrate the appropriate use of the software features and functions required for multipage business reports (e.g., headers, footers, footnotes, endnotes, headings, page numbers, cover pages, tables of contents, bibliographies, and indexes);

SB2.03 - create, electronically, a multipage report that includes a chart, a table, a graph, clip art, and enhanced font styles and designs.

Planning Notes

- The teacher assembles resources for reviewing word-processing and web-creation software.

Teaching/Learning Strategies

3.2.1 Software Programs and Features Review – Integrated Software (150 minutes)

- The teacher reviews the advanced features of integrated software packages that students might select to prepare the multipage report of website recommendations.
- Through the use of exercises, students practise using the software features, such as headers, footers, and importing data from other programs.
- The teacher reviews the software that students might use to produce the layouts for the sample pages.

3.2.2 Report Creation (525 minutes)

- The teacher introduces students to the report style for the project. See Appendix 3.2.2.1 – Business Report Style.
- The teacher introduces the activity log. See Appendix 3.2.2.2 – Time-Management Activity Log.
- Students select an appropriate integrated software package.
- Students take the data and research from Activity 3.1 and assemble a business report, using the report style and the selected software. Students include one or two sample page for the website. A desktop publishing, web-creation, or graphics program and a sketch scanned into the report are effective tools for this task.
- A flowchart or graphical representation of the entire website is also included.
- Their recommendations and conclusions are the final part of the report.

3.2.3 Communicating the Business Report (225 minutes)

- Students e-mail their business report to two other students in the class.
- Students analyse peers' reports and e-mail the peer assessment in a reply back to the writer. See Appendix 3.2.3.1 – Business Report Assessment Tool.
- Students make final edits to the business report based on the peer assessment.

Assessment & Evaluation of Student Achievement

Formative

- Self-assessment, each student keeps the Time-Management Activity Log (Appendix 3.2.2.1).
- Peer assessment using Appendix 3.2.3.1. Allow students time for revision before submission.
- Appendix 3.2.3.1 is used for formative self-assessment.

Summative

- Appendix 3.2.3.1 is used for summative teacher evaluation.

Enrichment

- See the Course Overview for enrichment strategies.

Appendix 3.2.2.1

Business Report Style

Parts of the Report

- Cover Page
- Table of Contents
- Executive Summary
- Problem Statement
- Analysis
- Decision Criteria and Alternatives
- Recommendations
- Conclusion

Executive Summary: is a one-page abstract (capsulated version) of the report as a whole, briefly outlining the company's background, the problem, and the recommendations (in broad terms). The summary is prepared after all other parts of the report are completed, but appears directly after the table of contents.

Problem Statement: outlines the problem in two or three sentences.

Analysis: includes all the data that has been collected; analysis is integrated from the software program used to organize the data. This section includes the screen capture(s) of the sample web pages and the graphical outline of the entire site.

Decision Criteria and Alternatives: are integrated into the report in the form of the electronic PMI chart generated in Activity 3.1.2.

Recommendations: are proposed solutions and include reasons.

Conclusion: is a section outlining the reasons your company should be hired. Remember, you are trying to sell management on your idea.

Appendix 3.2.2.2

Time-Management Activity Log

Student Name:

Date	Task	Work Completed

Appendix 3.2.3.1

Business Report Assessment Tool

Circle the most appropriate descriptor.

Parts of the Report	
<input type="checkbox"/>	Thorough treatment of all parts of the report
<input type="checkbox"/>	All eight parts of the report present and focused
<input type="checkbox"/>	Minimum requirements met
<input type="checkbox"/>	Report is incomplete; parts missing
Executive Summary	
<input type="checkbox"/>	Masterful handling of the capsulated summary
<input type="checkbox"/>	Unified and coherent handling of the capsulated summary
<input type="checkbox"/>	Complete capsulated summary
<input type="checkbox"/>	Confusing, not clear, or inappropriate capsulated summary
Problem Statement	
<input type="checkbox"/>	Insightful, unique, or imaginative description of the problem
<input type="checkbox"/>	Clearly researched with meaningful links in the problem description
<input type="checkbox"/>	Appropriate connections made in the problem description
<input type="checkbox"/>	Little or no description of the problem
Analysis	
<input type="checkbox"/>	Special or unusual features to create emphasis or deepen understanding
<input type="checkbox"/>	Analysis complete with enough information to evaluate alternatives
<input type="checkbox"/>	Adequate analysis on the identified areas
<input type="checkbox"/>	Unfocused analysis or not all areas identified
Decision Criteria and Alternatives	
<input type="checkbox"/>	Generates alternatives that demonstrate unusual possible answers of exceptional range of strategies
<input type="checkbox"/>	Generates several alternatives or strategies
<input type="checkbox"/>	Identifies one or two possible choices
<input type="checkbox"/>	Little evidence of possible answers or strategies
Recommendations	
<input type="checkbox"/>	Exceptional or unusual solution to the problem or description of the best answer
<input type="checkbox"/>	Solution of the problem clearly organized based on the data collected
<input type="checkbox"/>	Solution appropriate and useful
<input type="checkbox"/>	Solution: no clear organization and not based on the collected data
Conclusion	
<input type="checkbox"/>	High-level criteria applied to the evaluation of the conclusion; the decision or conclusion is clearly judged as to whether it will continue to be acceptable in the future. Evaluation includes the suitability of the conclusion based on the data and the original question.
<input type="checkbox"/>	More than minimum requirements for all parts of the report
<input type="checkbox"/>	Evaluation of the conclusion based on the data and the original question
<input type="checkbox"/>	Limited evaluation of the information in the conclusion

Comments:

Activity 3.3: Electronic Presentation

Time: 5 hours

Description

This activity focuses on electronic presentation. Students construct and electronically communicate the report developed in Activity 3.2, using e-mail, presentation software, multimedia software, and/or web technologies.

Strand(s) & Learning Expectations

Strand(s): Software Applications and Business Documents

Overall Expectations

ERV.03 - communicate research results electronically.

Specific Expectations

ER3.01 - determine the appropriate type of document needed to communicate specific information (e.g., presentation, abstract, summary);

ER3.02 - select appropriate electronic tools (e.g., multimedia, e-mail, web-based communication) to communicate information to a specific audience;

ER3.03 - communicate their research results electronically.

Prior Knowledge & Skills

- Students require knowledge of and skills in e-mail, presentation, and/or web-page software.

Planning Notes

- Completion of Activities 3.1 and 3.2 is required. The case study in Activity 3.1 and the report from Activity 3.2 form the basis for Activity 3.3.
- For an effective presentation, students should be provided with access to a demonstration device, such as a projector or PC encoder.

Teaching/Learning Strategies

3.3.1 Presentation Production (150 minutes)

- Students, in pairs, select one report from Activity 3.2 and focus on both process and product. Students use Appendix 3.3.1.2 – Presentation Group Work Assessment to rate their success working with a partner and their partner's success. The purpose is to articulate the appraisal of each other and compare their self-assessment with their partner's assessment.
- Students choose presentation software or web-page design software to highlight their project.
- Hyperlinks should be used within the presentation software or web pages.
- Appendix 3.3.1.1 – Presentation Content Checklist provides the specifications for the electronic presentation or web pages.

3.3.2 Presenting the Plan (150 minutes)

- Each pair orally presents report highlights using their electronic presentation. Each pair is given up to 10 minutes for the presentation.

Assessment & Evaluation of Student Achievement

Formative

- Formative self-assessment using the presentation checklist (Appendix 3.3.1.1).
- Peer assessment using Appendix 3.3.2.1 – Oral Presentation Checklist.
- Peer assessment of group work using the group work assessment (Appendix 3.3.1.2).
- Peer assessment of Activity 3.3.2 using Appendix 3.3.2.1.

Summative

- Teacher evaluation using Appendix 3.3.2.1 – Oral Presentation Checklist and Appendix 3.3.2.2 – Electronic Presentation Rubric.

Accommodations

Enrichment

- Students create a sample website for the business.

Appendix 3.3.1.1

Presentation Content Checklist

Specifications

	You must have at least eight slides or pages.
	The first slide must be a title slide/page, with the title created using <i>Wordart</i> .
	You must have at least two slides/pages with bulleted lists.
	There must be a graphic on at least four of the slides. Two must come from the Internet.
	The text must be animated if using presentation software.
	There must be a slide transition if using presentation software.
	You must have consistent colours, fonts, transitions, and animations.
	Hyperlinks must be used.
	A summary slide with a <i>Wordart</i> title and a bulleted list of the main points.
	URLs of the sites you took content from, acknowledging sources.
	Evaluate content from websites for authenticity using one of the following sites: <ul style="list-style-type: none">• www.uwec.edu/Admin/Library/Guides/tencs.html;• www2.widener.edu/Wolfgram-Memorial-Library/webevaluation/webeval.htm.

Appendix 3.3.1.2

Presentation Group Work Assessment

Comparing My Assessment with the Assessment of My Partner

Date:

Name:

Partner's Name:

- Decide the degree to which you were successful in each area and place a checkmark in the appropriate cell.
- Decide to what degree your partner was successful in each of the following areas.
- Share your appraisal with your partner and compare your self-assessment to your partner's assessment of your performance.

Criteria	Evaluation of my Performance			Evaluation of my Partner's Performance			
	Rating Scale	Superior	Proficient	Adequate	Superior	Proficient	Adequate
Adhering to the rules - understanding and following the agreed-upon procedure							
Contributing - helping my partner with the presentation - helping my partner achieve group goals							
Working cooperatively - accomplishing my tasks - helping to avoid or settle disputes - staying on topic							
Communication - making relevant statements - organizing my thoughts before and while speaking - supporting opinions of partner with facts							
Organizing information - asking for facts, expansion, or my partner's views - restating ideas, using examples for clarification - pulling ideas together - offering conclusions - summarizing							

What is your overall evaluation of your contribution to the presentation development?

What is your partner's overall evaluation of your contribution to the presentation development?

How do the assessments compare? The action of considering the apparent differences between the two assessments will inform the future work of the student (A formative assessment).

Appendix 3.3.2.1

Oral Presentation Checklist

Aspects of Topic	
	Thorough treatment of all aspects of the topic; deep insight into the topic
	Understood the topic well
	Had some idea of the topic
	Demonstrates limited knowledge of the topic
Communicating Information	
	Sensitive, precise use of words with attention to connotative and denotative meanings
	Communicates information and ideas with considerable clarity
	Communicates information and ideas with some clarity
	Communicates information and ideas with limited clarity
Introduction	
	Introduction creative and the hook interesting
	Introduction clear with a hook
	Introduction clear, no hook
	Introduction unclear, no hook
Voice	
	Could hear all things at all times
	Volume clear for most of the class
	Sometimes spoken too quietly
	Volume barely audible
Pace/Flow	
	Excellent pace no interruptions; topic stated clearly and flowed effortlessly
	Good pace with few interruptions
	Breaks in the flow
	Starting and stopping
Use of Notes	
	Does not read notes
	Some reliance on notes
	Reads notes for the majority of the presentation
	Constantly looking at notes
Visual Aids	
	Visual aids used effectively
	Visual aids used intermittently
	Visual aids do not enhance the presentation
	Poor visual aid(s)
Organization	
	Exceptional organized
	Good organization
	Reasonably organized
	Gaps in preparation evident

Comments (Strengths and areas for improvement)

Appendix 3.3.2.2
Electronic Presentation Rubric

Criteria	Level 1 (50-59%)	Level 2 (60-69%)	Level 3 (70-79%)	Level 4 (80-100%)
Knowledge/ Understanding Knowledge of facts and terms Expectation:	- demonstrates limited knowledge of facts and terms	- demonstrates some knowledge of facts and terms	- demonstrates considerable knowledge of facts and terms	- demonstrates thorough insightful knowledge of facts and terms
Understanding of concepts, principles, and theories Expectation:	- demonstrates limited understanding through identification and explanation of content on topic	- demonstrates some understanding through identification and explanation of content on topic	- demonstrates considerable understanding through identification and explanation of content on topic	- demonstrates thorough understanding through identification and explanation of aspects of content on topic
Thinking/Inquiry Critical and creative thinking skills (e.g., to identify the problem, topic, issue, explore alternative, collect the data) Expectation:	- demonstrates limited use of specific strategies to gather information and generate ideas for presentation	- demonstrates some use of specific strategies to gather information and to generate ideas for presentation	- demonstrates considerable use of specific strategies to gather information and to generate ideas for presentation	- demonstrates a high degree of use of specific strategies to gather information and to generate ideas for presentation
Application Application of concepts, skills, and procedures in familiar (to new) contexts Expectation:	- demonstrates limited use of organizational pattern to structure ideas for presentation	- demonstrates some use of organizational pattern to structure ideas for presentation	- demonstrates considerable use of organizational pattern to structure ideas for presentation	- demonstrates a high degree of use of an organizational pattern to structure ideas for presentation
Use of equipment, materials and technology Expectation:	- demonstrates limited use of strategies for style, text, background, timing, or transitions	- demonstrates some use of strategies for style, text, background, timing, or transitions	- demonstrates considerable use of strategies for style, text, background, timing, or transitions	- demonstrates a high degree of use of strategies for style, text, background, timing, or transitions
Communication Communication of information and ideas (e.g., through visual and oral presentations) Expectation:	- communicates information and ideas with limited clarity	- communicates information and ideas with some clarity	- communicates information and ideas with considerable clarity	- communicates information and ideas with a high degree of clarity and confidence

Note: Space is provided to include the specific expectation related to the assignment.

Note: A student whose achievement is below Level 1 (50%) has not met the expectations for this assignment or activity.